

## **2017-123 REV 4**

### **PROGRAMMING DOCUMENT 2019-2021**

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To                Management Board  
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# eu-LISA Programming Document

2019-2021

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## Foreword

The Programming Document 2019-2021 of the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA) is intended to be the guiding document that directs the efforts of the Agency in 2019 and provides a long-term view up to 2021 for its internal and external stakeholders. It has been designed to align the Agency's financial and human resources with its legally required activities and with the development objectives set in its long-term strategy.

For 2019, the Agency has set three high-priority areas:

### Operational management and evolution of the existing systems

- Implementation of the technology strategy.<sup>1</sup>
- Follow-up on and implementation of the conclusions of the work of the high-level expert groups (on interoperability, etc.).<sup>2</sup>
- Compliance with the agreed Service-Level Agreements with a specific focus on the architecture of the systems.

### Development and implementation of new systems

- Continuation of the implementation of the Entry/Exit System in accordance with the agreed schedule.
- Development and implementation of the European Travel Information and Authorisation System.<sup>3</sup>
- Implementation of the new Schengen Information System legal framework and Dublin Reform Package.<sup>4</sup>

### Organisational reinforcement and development

- Further implementation of the total quality management system.
- Establishment of the corporate information and management system.
- Revision of collateral strategies.
- Vendor management capability development.
- Further development of the Enterprise Project Management Office.
- Implementation of the action plan following the evaluation of the Agency.

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<sup>1</sup> As endorsed by the Management Board in June 2017.

<sup>2</sup> On 12.12.2017, the Commission published its Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (police and judicial cooperation, asylum and migration) and its Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (borders and visa) and amending Council Decision 2004/512/EC, Regulation (EC) No 767/2008, Council Decision 2008/633/JHA, Regulation (EU) 2016/399 and Regulation (EU) 2017/2226, to address the need for these systems to be interoperable.

<sup>3</sup> Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS) and amending Regulations (EU) No 1077/2011, (EU) No 515/2014, (EU) 2016/399, (EU) 2016/1624 and (EU) 2017/2226, and Regulation (EU) 2018/1241 of the European Parliament and of the Council of 12 September 2018 amending Regulation (EU) 2016/794 for the purpose of establishing a European Travel Information and Authorisation System (ETIAS).

<sup>4</sup> The SIS package was adopted on 28 November 2018 (OJ L 312, 7.12.2018, p. 1-106). The Dublin Reform Package is at the time of writing still subject to adoption.

- Expansion of the capacity of the Strasbourg building.

The Programming Document will provide eu-LISA's staff with guidance on the Agency's priorities and support work planning, taking into consideration the new legal framework<sup>5</sup> under which the Agency operates. In addition, the document will serve as a basis for the decision on the overall financing of the Agency by its stakeholders.

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<sup>5</sup> Regulation (EU) 2018/1726 of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), and amending Regulation (EC) No 1987/2006 and Council Decision 2007/533/JHA and repealing Regulation (EU) No 1077/2011.

## Abbreviations

ABIS	automated biometric identification system
AFIS	automated fingerprint identification system
AG	advisory group
AMMU	Applications Management and Maintenance Unit
BCU	Backup Central Unit — backup centre in St Johann im Pongau
BCMS	Business Continuity Management System
BMS	Biometric Management System
CA	contract agent
CEOS	Conditions of Employment of Other Servants of the European Union
CEPOL	European Union Agency for Law Enforcement Training
CIMS	corporate information and management system
CIR	common identity repository
COTS	commercial off-the-shelf
CRRS	Common Repository for Reporting and Statistics
CSD	Corporate Services Department
CSI	common shared infrastructure
CU	Central Unit — the main data centre in Strasbourg
DG HOME	Directorate-General for Migration and Home Affairs
DP	data protection
DPO	Data Protection Officer
DubliNet	A secure electronic network of transmission channels between the national authorities dealing with asylum applications
ECRIS	European Criminal Records Information System
ECRIS-TCN	European Criminal Records Information System — Third-Country Nationals
EES	Entry/Exit System
ENISA	European Union Agency for Network and Information Security
EPMO	Enterprise Project Management Office
ER	establishing regulation
ESP	external service provider
ETIAS	European Travel Information and Authorisation System
EU	European Union
eu-LISA	European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice
Europol	European Union Agency for Law Enforcement Cooperation
FG	function group
FPU	Finance and Procurement Unit
Frontex	European Border and Coast Guard Agency
FTE	full-time equivalent
FwC	framework contract

GCU	General Coordination Unit
HQ	headquarters
HR	human resources
HRU	Human Resources Unit
IA	impact assessment
IAC	Internal Audit Capability
ICD	interface control document
ICS	internal control standard
ICT	information and communication technology
ID	identification
IT	information technology
ITIL	Information Technology Infrastructure Library
ITSM	information technology service management
JHA	justice and home affairs
KPI	key performance indicator
LFS	legislative financial statement
MB	Management Board
MoU	memorandum of understanding
MWO	maintenance in working order
OD	Operations Department
OIU	Operations and Infrastructure Unit
OJ	<i>Official Journal of the European Union</i>
OLA	operational-level agreement
PD	programming document
PKI	public key infrastructure
PPE	Pre-Production Environment (platform)
PRD	Production Platform
sBMS	shared biometric matching service
SC	specific contract
SEC	Security Unit
SIEM	Security Information and Event Management System
SIRENE	Supplementary Information Request at the National Entries
SIS	Schengen Information System
SLA	service-level agreement
SNE	seconded national expert
sTESTA	secure Trans European Services for Telematics between Administrations
Sysper	Information system considered to cover all needs concerning the treatment of information for the Commission's management of human resources
TA	temporary agent
TCN	third-country national
TESTA-ng	Trans European Services for Telematics between Administrations — new generation

TST	test environment/testing requirements
USK	user software kit
VIS	Visa Information System
VIS Mail	Communication mechanism — allows for the transmission of messages between Member States using the Visa Information System network infrastructure
WAN	wide area network

## Mission statement<sup>6</sup>

### OUR MANDATE

The European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA) was established by Regulation (EU) No 1077/2011 of the European Parliament and of the Council of 25 October 2011 (OJ L 286, 1.11.2011, p.1), which entered into force on 21 November 2011, providing that the Agency take up its main responsibilities from 1 December 2012. eu-LISA is responsible for the development and operational management of large-scale IT systems in the fields of asylum, border management and law enforcement. In June 2017, the European Commission adopted Proposal for a Regulation of the European Parliament and of the Council on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice, and amending Regulation (EC) 1987/2006 and Council Decision 2007/533/JHA and repealing Regulation (EU) 1077/2011. The proposal changes and expands the responsibilities of eu-LISA with regard to large-scale IT system development and operational management, communication infrastructure, research, pilot projects and more. The new Regulation (EU) 2018/1726<sup>7</sup> entered into force on 11 December 2018.

The Agency is mandated to provide effective operational management of the central components of the Schengen Information System (SIS II), the Visa Information System (VIS) and Eurodac on behalf of its stakeholders. In addition, the Agency is also responsible for certain aspects of the communication infrastructure that support the above systems. Regarding networks, eu-LISA is the provider for the communication infrastructure for SIS II, VIS and Eurodac. The Agency is also responsible for VIS Mail and DubliNet, the communication tools for the VIS and Eurodac systems, respectively. The Agency has also been mandated to develop and operationally manage the Entry/Exit System (EES), following the adoption of Regulation (EU) 2017/2226,<sup>8</sup> which entered into force in December 2017, and the amended Regulation (EU) 1077/2011. Following the entry into force on 9 October 2018 of Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS), the Agency has also become responsible for the development and operational management of ETIAS.

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<sup>6</sup> In progressing and implementing the below-mentioned tasks, eu-LISA will respect the fundamental right to the protection of personal data as recognised in Article 8 of the Charter of Fundamental Rights, and in particular the purpose limitation principle. In exploring the interoperability of large-scale IT systems, special consideration will be given to data protection by design, as referred to in Article 25 of Regulation (EU) 2016/679 and Article 20 of Directive (EU) 2016/680.

<sup>7</sup> Regulation (EU) 018/1726 of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), and amending Regulation (EC) No 1987/2006 and Council Decision 2007/533/JHA and repealing Regulation (EU) No 1077/2011.

<sup>8</sup> Regulation (EU) 2017/2226 of the European Parliament and of the Council of 30 November 2017 establishing an Entry/Exit System (EES) to register entry and exit data and refusal of entry data of third country nationals crossing the external borders of the Member States of the European Union and determining the conditions for access to the EES for law enforcement purposes and amending Regulations (EC) No 767/2008 and (EU) No 1077/2011.

The Agency may become responsible for other systems, provided the relevant legal instruments are adopted, e.g. the European Criminal Records Information System — Third-Country Nationals (ECRIS-TCN).<sup>9</sup>

## OUR MISSION

The Agency's core mission is to be dedicated to continuously add value for the Member States, supporting through technology their efforts to build a safer Europe.

## OUR VISION

- To provide high-quality and efficient services and solutions to our stakeholders.
- To earn the trust of our stakeholders, continuously aligning the capabilities of technology with the evolving needs of Member States.
- To grow as a centre of excellence.

## OUR VALUES

The Agency has a number of core values that drive and underpin operational activities and the strategic development of the organisation:

- **Accountability:** deploying a sound governance framework, cost-efficient operations and sound financial management.
- **Transparency:** providing regular and open communication with the Agency's key stakeholders and engaging them in a continuous dialogue to define a long-term strategy for the development of the Agency.
- **Excellence:** having the right organisational structure, the right people and the right processes in place to ensure service continuity and functional comprehensiveness of tools provided to the Member States.
- **Continuity:** ensuring that the Agency makes the best use of expertise, knowledge and investments made by the Member States and continues to develop these.
- **Teamwork:** seeking to empower each individual team member to make the best use of their knowledge and experience, contributing to the common success.
- **Customer focus:** ensuring that the Agency is aligned at all times with the needs and demand of its stakeholders.

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<sup>9</sup> Proposal for a Regulation of the European Parliament and of the Council establishing a centralised system for the identification of Member States holding conviction information on third country nationals and stateless persons (TCN) to supplement and support the European Criminal Records Information System (ECRIS-TCN system) and amending Regulation (EU) No 1077/2011. Council and Parliament negotiators agreed on 11 December 2018 on a reformed European criminal records information system (ECRIS) that will now include a centralised database with information on convictions of third-country nationals and stateless persons (so-called ECRIS-TCN).

## Section I General context

The European Union (EU) will have to face and respond to various challenges in the coming years. Many of these challenges relate to the domain of justice and home affairs (JHA). Actors involved in work in the field, therefore, face a period of unprecedented levels of activity. Amid the increasing number of new security challenges, the EU as a part of a globalised and interconnected world should remain open and maintain full respect for fundamental freedoms while guaranteeing an adequate level of security to its citizens and institutions. At the same time, technologies are rapidly evolving, offering new opportunities for, inter alia, facilitation of new ways of work, improved efficiency and economic growth.

To address the challenges, the European Commission has defined 10 policy areas as priorities. Considering the mandate of the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), the Agency is committed to contribute to delivery of objectives set in the following policy areas:

- justice and fundamental rights, with specific focus on the *Security Union* and *judicial cooperation*;
- migration, with specific focus on *saving lives and securing external borders* and *a strong common asylum policy*.

To deliver the results, expected by the citizens of the EU, in the areas of border management, migration management and internal security, the EU will have to consolidate successful policies and their achievements in the justice and home affairs domain and complement them with relevant new initiatives.

Within the EU, the area of freedom, security and justice has been going through a significant transformation. Cybercrime is increasing rapidly, while irregular migration and terrorism persist as threats to internal security. Cross-border organised crime continues to evolve, too. In many instances, the different challenges overlap and are interrelated, demanding a coordinated response. In other words, a convergence between border management, internal security and migration management domains is apparent. The development and deployment of technologies and IT systems is a crucial component of such a coordinated and comprehensive response. Consequently, the justice and home affairs area has become increasingly reliant on modern IT technologies that support information sharing among the relevant authorities across Europe.

At the same time, the ongoing digital transformation of the justice and home affairs domain will continue and even accelerate in the coming years. Therefore, the EU should further explore the capabilities of technology to support and contribute to the delivery of priorities.

Within this changing environment, eu-LISA, as a key stakeholder in the JHA domain, will continue to deliver its core mission, which is to continuously add value for the Member States, supporting through technology their efforts to build a safer Europe. The Agency will continue to ensure the uninterrupted operation, security and resilience of the systems entrusted to it. The period 2019-2021 will also involve significant efforts in the development and deployment of new systems and technological components introduced to address current gaps and better deal with operational challenges. Development of the Entry/Exit System (EES) will proceed in the period in question following the adoption of the relevant legislation in December 2017. The relevant legislation for the European Travel Information and Authorisation System (ETIAS) was also adopted in September 2018, following the start of development. Development of interoperability components is expected to begin in 2019, starting with the Common Repository for Reporting and Statistics (CRRS), should the

applicable legislation be adopted in a timely manner. Work on the recast of all three systems currently managed (Schengen Information System (SIS),<sup>30</sup> Visa Information System (VIS) and Eurodac) will proceed in this period. Moreover, the proposal for the European Criminal Records Information System — Third-Country Nationals (ECRIS-TCN) may also be adopted at the beginning of 2019. By managing its growth to fulfil the range of activities planned for to the standards of excellence that stakeholders have come to expect, the Agency will make increasingly important contributions to Europe's efforts to meet all challenges related to the migration crisis, terrorist threats and organised and serious cross-border crimes. Focused on becoming an acknowledged centre of excellence, eu-LISA will continue acting as a trusted and reliable partner and advisor on topics pertaining to the operational management of large-scale IT systems and as an important contributor to the implementation of relevant policies, priorities and objectives in the JHA domain, thereby ensuring continuity of related actions. The revision of the Agency's establishing regulation (ER),<sup>31</sup> adopted on 14 November 2018 and which entered into force on 11 December 2018, provides the basis for this, envisaging as it does requests from Member States and/or the Commission for advice and ad hoc support. Monitoring of relevant research with related reporting to EU institutions will continue, while the extended mandate in the field of research should also lead to Agency experts being involved in the management of EU-funded research projects. Efforts to improve the quality of data in large-scale IT systems through the application of automated mechanisms will also be relevant in this regard. Provision of public reports on the use and technical performance of the systems will continue as an important contributor to policy-making in the JHA domain, with increasing numbers of reports to be published as the number of systems being managed grows. The Agency will also continue to provide training on the technical use of all large-scale IT systems to the Member States, delivering training face-to-face as well as through a modern, secure and reliable e-learning platform. In the period in question, this will include specialised pre- and post-deployment training on new systems, as well as regular system-focused training organised in line with the European Qualifications Framework (EQF).

To ensure that the cybersecurity risks faced by large-scale IT systems under the Agency's operational management are managed continuously and systematically, the Agency should continue to comply strictly with the requirements of the relevant regulations regarding data protection (DP) and with industry best practices. The Agency's focus will be to strengthen and evolve its overall cybersecurity architecture and related procedures in order to optimally monitor and address risks.

With full respect for its legal framework, eu-LISA will continuously look into the further development of existing partnerships and explore possibilities for further cooperation and/or collaboration. In this respect, the Agency will continue to maintain close and effective relations with the EU institutions. It will also maintain effective cooperation with the Member States and Associated Countries — the main stakeholders of eu-LISA — taking into account the Agency's mandate, activities and services. Other EU agencies, in particular the JHA agencies, will remain an important group of eu-LISA stakeholders and cooperation partners, especially with regard to the exchange of best practices and for identifying synergies in the field of border, migration and asylum management solutions. These activities will further the goals of supporting operational actors through the

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<sup>30</sup> The SIS package was adopted on 28 November 2018 (OJ L 312, 7.12.2018, p. 1-106).

<sup>31</sup> Regulation (EU) 2018/1726 of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), and amending Regulation (EC) No 1987/2006 and Council Decision 2007/533/JHA and repealing Regulation (EU) No 1077/2011.

provision of high-quality IT services and of implementing and enhancing interoperability while ensuring data protection and fundamental rights.

## Section II Multi-annual programming 2019-2021

### 1. Multi-annual objectives<sup>12</sup>

#### ***1.1. Strategic goals 2018-2022***

The strategic goals for the Agency as described below reflect the mandate of the Agency at the time of writing and its priorities as defined through dialogue with the Member States and the Commission. These goals have been established in the updated long-term strategy of the Agency adopted by the Management Board (MB) in November 2017.

The goals are regularly monitored and subject to regular reviews and development over the term of the long-term strategy in order to meet the evolving needs of the organisation and its stakeholders.

The Agency's new long-term strategy is built around four strategic goals:

- **Strategic Goal 1:** continue to grow as a contributor to and implementing partner for the relevant policies in the EU;
- **Strategic Goal 2:** maintain and extend the role of the Agency as an EU information and communication technology (ICT) centre of excellence and service provider;
- **Strategic Goal 3:** continue growing as the principal EU ICT technology hub;
- **Strategic Goal 4:** continue to develop an efficient and agile organisation in compliance with the EU regulatory framework.

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<sup>12</sup> This section is developed in accordance with the updated long-term strategy of eu-LISA for 2018-2022.

## 1.2. The strategic multi-annual objectives 2019-2021

Since its establishment, eu-LISA has developed a planning approach that allows the organisation to streamline its efforts to accomplish its mission and fulfil its vision fully. In 2017, the Agency developed its new long-term strategy, which established the strategic goals and the related strategic objectives for the period 2018-2022. The document sets out of the desired scope of the Agency's development. To achieve its strategic goals and objectives, the Agency has also created for the period 2018-2022 a multi-annual overview that details the main elements of the strategic objectives and the relations between the elements, the objectives and the strategic goals.

The relations between the goals, objectives, indicators of achievement and elements of the strategic objectives are set out in the tables below.

Table 1 — Strategic goals, indicators of achievement

Strategic goal	Indicators of achievement
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	Number of identified critical shortcomings during security tests
	Percentage (%) of identified security risks treated by assured security controls
	Eurodac central system availability
	Eurodac central system response time
	Wide area network availability (for SIS II and VIS systems)
	SIS II central system availability
	SIS II central system response time
	VIS/Biometric Management System (BMS) central system availability

Strategic goal	Indicators of achievement
	VIS/BMS central system response time
	Member States Systems Service Desk performance
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	Ratio (%) of administrative resources to operational resources
	eu-LISA training course external participant satisfaction
	Project management: assessing completed projects against defined quality/cost/time parameters
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	Customer satisfaction: % of Member State customers satisfied or very satisfied with the overall service provided by eu-LISA Service Desk
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	Ratio (%) of activities identified in the Annual Work Programme met or on schedule
	Cancellation rate (%) of payment appropriations
	Rate (%) of budgetary commitments implementation
	Rate (%) of payment implementation
	Ratio (%) of payments completed within the statutory deadlines
	Percentage (%) of audit recommendations implemented within stipulated deadlines

Strategic goal	Indicators of achievement
	Procurement compliance with the Agency’s Procurement and Acquisition Plan (PAP)
	Procurement project management: % of main procurement projects on schedule
	Average square metres of office space per full-time equivalent (FTE) (m <sup>2</sup> )
	Percentage (%) of uncertified vs certified absence days from work within reporting period
	Annual percentage (%) staff turnover
	Staff performance index
	Staff engagement level
	eu-LISA web-based visibility

Table 2 — Elements of the strategic objectives

Strategic goal	Strategic objective	Element of the strategic objective
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.1 Provide reliable and cost-effective solutions and services to stakeholders as per mandate	1.1.1 Effectively and efficiently manage all systems entrusted to the Agency
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.1 Provide reliable and cost-effective solutions and services to stakeholders as per mandate	1.1.2 Timely, effective and efficient evolution of all systems entrusted to the Agency

Strategic goal	Strategic objective	Element of the strategic objective
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.1 Provide reliable and cost-effective solutions and services to stakeholders as per mandate	1.1.3 Consolidate and optimise the large-scale IT systems infrastructure
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.2 Continuously increase the added value of systems, data and technology to stakeholders	1.2.1 Move from ex-post data analysis (statistics) to analytics
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.2 Continuously increase the added value of systems, data and technology to stakeholders	1.2.2 Develop and implement new/additional systems, if so provided by relevant legislative instruments
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.2 Continuously increase the added value of systems, data and technology to stakeholders	1.2.3 Increase the visibility of the Agency's corporate and systems performance to all stakeholders
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.2 Continuously increase the added value of systems, data and technology to stakeholders	1.2.4 Deliver appropriate systems training for Member States and other relevant stakeholders
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.3 Strengthen information security capabilities related to the systems entrusted to the Agency	1.3.1 Improve, test and refine the Agency's business continuity management and disaster recovery procedures

Strategic goal	Strategic objective	Element of the strategic objective
Strategic Goal 1: Continue to grow as a contributor to and implementing partner for the relevant policies in the EU	1.3 Strengthen information security capabilities related to the systems entrusted to the Agency	1.3.2 Strengthen and evolve the Agency's IT and cybersecurity framework for its systems and communication networks
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.1 Develop and maintain an efficient and effective governance and service model to achieve and maintain operational excellence	2.1.1 Accomplish implementation of sourcing strategy that offers required agility to provide cost-effective ICT solutions and services
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.1 Develop and maintain an efficient and effective governance and service model to achieve and maintain operational excellence	2.1.2 Continuously improve vendor management processes, tools, reporting and capabilities within the Agency
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.1 Develop and maintain an efficient and effective governance and service model to achieve and maintain operational excellence	2.1.3 Monitor the efficiency of the Agency's operations and continuously seek the optimisation of the total cost of ownership
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.1 Develop and maintain an efficient and effective governance and service model to achieve and maintain operational excellence	2.1.4 Evolve the Agency's operational model toward compliance with industry standards for Information Technology Infrastructure Library (ITIL)/information technology service management (ITSM)
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.1 Develop and maintain an efficient and effective governance and service model to achieve and maintain operational excellence	2.1.5 Systematically implement adopted project management standards, processes and practices

Strategic goal	Strategic objective	Element of the strategic objective
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.2 Provide ICT services and expertise to other agencies in support of the common approach	2.2.1 Develop and implement appropriate service portfolio
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.2 Provide ICT services and expertise to other agencies in support of the common approach	2.2.2 Adapt the Agency's standard service model accordingly
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.2 Provide ICT services and expertise to other agencies in support of the common approach	2.2.3 Share best practices and services with other agencies, with particular focus on the area of ICT
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.2 Provide ICT services and expertise to other agencies in support of the common approach	2.2.4 Provide new and improve existing services and solutions to meet stakeholder requirements
Strategic Goal 2: Maintain and extend the role of the Agency as an EU ICT centre of excellence and service provider	2.2 Provide ICT services and expertise to other agencies in support of the common approach	2.2.5 Industry-standard set of IT services developed and implemented
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	3.1 Identify new solutions to facilitate optimisation of business processes	3.1.1 Follow the developments in research and innovation

Strategic goal	Strategic objective	Element of the strategic objective
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	3.1 Identify new solutions to facilitate optimisation of business processes	3.1.2 Further research monitoring and engagement tools to enable rapid integration of relevant aspects of research into Agency's business processes
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	3.1 Identify new solutions to facilitate optimisation of business processes	3.1.3 Enlarge the business knowledge available in the Agency
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	3.2 Be a trusted advisor and a technical enabler to stakeholders on matters within the mandate of the Agency	3.2.1 Seek synergies with other private and public sector ICT actors in support of research and innovation exchange
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	3.2 Be a trusted advisor and a technical enabler to stakeholders on matters within the mandate of the Agency	3.2.2 Provide advice to stakeholders about matters relating to the mandate and activities of the Agency
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	3.2 Be a trusted advisor and a technical enabler to stakeholders on matters within the mandate of the Agency	3.2.3 Evolve and maintain relations with relevant stakeholders
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	3.3 Explore and implement interoperability architecture and its effects on the NS and CS <sup>13</sup> , and the operational model of the Agency	3.3.1 Establish enterprise architecture capabilities in the Agency

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<sup>13</sup> National system (NC) and core systems (CS)

Strategic goal	Strategic objective	Element of the strategic objective
Strategic Goal 3: Continue growing as the principal EU ICT technology hub	3.3 Explore and implement interoperability architecture and its effects on the NS and CS, and the operational model of the Agency	3.3.2 Develop a consistent enterprise architecture model for the JHA domain and related areas
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.1 Ensure systematic compliance with the EU regulatory framework and general governance requirements	4.1.1 Comply fully and on time with all statutory reporting obligations
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.1 Ensure systematic compliance with the EU regulatory framework and general governance requirements	4.1.2 Continuously develop and strengthen the Agency's budgetary, financial and procurement management, procedures and practices in line with relevant legal acts and the principles of performance management
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.1 Ensure systematic compliance with the EU regulatory framework and general governance requirements	4.1.3 Continuously monitor and regularly review and update the internal control framework
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.1 Ensure systematic compliance with the EU regulatory framework and general governance requirements	4.1.4 Ensure systematic compliance with data protection and security requirements

Strategic goal	Strategic objective	Element of the strategic objective
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.2 Continuously align the business objectives with the capabilities, processes and resource allocation to best serve stakeholders' needs	4.2.1 Maintain and operate a sound and adaptive governance framework, including processes and procedures following industry best practices and standards
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.2 Continuously align the business objectives with the capabilities, processes and resource allocation to best serve stakeholders' needs	4.2.2 Identify key capabilities and processes that need adjustment and implement changes necessary to improve performance in a systematic and measurable way
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.2 Continuously align the business objectives with the capabilities, processes and resource allocation to best serve stakeholders' needs	4.2.3 Implement and manage the Agency's quality management system
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.2 Continuously align the business objectives with the capabilities, processes and resource allocation to best serve stakeholders' needs	4.2.4 Systematically assess alignment between existing or new business objectives and allocation of resources and capabilities to deliver them
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.3 Continue to be an attractive employer; retain and continuously develop staff	4.3.1 Ensure adequate working conditions for all staff

Strategic goal	Strategic objective	Element of the strategic objective
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.3 Continue to be an attractive employer; retain and continuously develop staff	4.3.2 Identify, attract, develop and retain talented employees and ensure their professional development
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.3 Continue to be an attractive employer; retain and continuously develop staff	4.3.3 Design and implement a knowledge management framework
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.3 Continue to be an attractive employer; retain and continuously develop staff	4.3.4 Develop the human resources (HR) function towards business partnership to better support staff needs and the objectives of the organisation
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.4 Develop and maintain positive image towards its internal and external stakeholders	4.4.1 Promote and maintain a positive image of the Agency through outreach activities and effective external and internal communications
Strategic Goal 4: Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.4 Develop and maintain positive image towards its internal and external stakeholders	4.4.2 Maintain the visibility and credibility of the Agency's work and contribution to the EU among external stakeholders

## 2. Multi-annual programme (2019-2021)<sup>14</sup>

This section describes the specific areas of action that need to be addressed in the period 2019-2021 to support the achievement of the strategic goals and objectives. The areas of strategic action aim to support and ensure cohesion between the business functions entrusted to the Agency with its founding regulation and the horizontal activities carried out to support the core business on one side and the organisation's strategic ambitions on the other. They also aim to provide facilitation, guidance and support for planning the practical activities and actions, which will deliver the desired results. This way the Agency is confident that all its actions are in line with the statutory requirements and lead to achieving its vision and fulfilling its mission. The intention of the organisation is to elaborate its programming documents (PDs) in such a way that they reflect the logic and scope as set by the long-term strategy.

### 2.1. *Operational management and evolution of the existing systems*

eu-LISA will ensure continuous service availability to the Member States through uninterrupted and high-quality 24/7 operations of the entrusted systems. This goal will be achieved through constant monitoring, incident management and interactions with the Member States. Efficient management and maintenance of the backup data centre and the backup operational site will be equally ensured.

To further evolve its operations in line with industry best practices, the Agency will continue with the development of its service and process model based on an Information Technology Infrastructure Library (ITIL)/information technology service management (ITSM) best practices adoption. The eu-LISA ITSM framework for Phase 1 processes was officially adopted in February 2016; four new processes are in the scope of eu-LISA ITSM Phase 2. This work is developed in 2018 and effectively implemented in 2019. Based on the principle of a continuous service improvement process, the Agency will also seek opportunities to automate further and rationalise processes where possible, benefiting from the integrated ITSM tool and its further integration towards monitoring tools. Focus will also be on the integration of the ITSM process model with the established project management process, hereby aiming to further standardise and monitor more efficiently the transition to operations.

In 2019-2021, eu-LISA aims to continue improving performance in all operational areas and to increase levels of automation where appropriate and possible. The main initiatives in this regard will be:

- annual process maturity assessment;
- the centralisation of Oracle licencing;
- implementation of the Event Monitoring Solution for Core Business Systems,<sup>15</sup> which will be integrated with the Central Monitoring Solution within the Common Shared Services Area;
- introduction of Service Desk benchmarking;
- integration of event management with the Monitoring Solution;

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<sup>14</sup> This section is developed in accordance with the updated long-term strategy of eu-LISA for 2018-2022 as adopted by the Management Board.

<sup>15</sup> Core business systems are the systems entrusted to the Agency for operational management.

- implementation of an advanced reporting solution, guaranteeing real-time reporting as well as point-in-time reporting;
- integration of asset management with configuration management;
- further harmonisation of eu-LISA's data centre infrastructure management via continuation of the implementation of common shared services on top of a common shared infrastructure (CSI). These activities started in 2017, continued in 2018 and are due to be completed in 2019. eu-LISA will also put effort into reorganising its data centres for the proper hosting of the CSI (already implemented), which will be maintained from 2019. Finally, enhanced focus will be on ensuring the alignment of processes and contractual arrangements of the different MWOs with the shared services provisions and standards.

In addition, in 2019-2021, eu-LISA will continue identifying and implementing synergies between infrastructure and services by implementing an integrated solution for all existing core business system monitoring tools. This solution will be based on the relevant event management process. The integrated monitoring will contribute to a further enhancement of the operational management of the systems entrusted to eu-LISA and will support the Agency in the delivery of its objectives in accordance with Article 2 of its Regulation.

In addition, the Agency will further develop its contract management capabilities for the systems under its management by standardising and optimising the architecture of its MWO contract portfolio. The benefit will be (but might not be limited to):

- alignment of the duration of MWO contracts managed by the Agency;
- establishment of a unified control system with regard to the contractors;
- implementation of unified performance metrics for all contractors;
- alignment of number and scope of contracts with the architecture of the systems (present and future) managed by eu-LISA.

On 12 December 2017, the Commission published a Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (police and judicial cooperation, asylum and migration) and a Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (borders and visa) and amending Council Decision 2004/512/EC, Regulation (EC) No 767/2008, Council Decision 2008/633/JHA, Regulation (EU) 2016/399 and Regulation (EU) 2017/2226 to address the need for interoperability of EU large-scale IT systems. The proposals, still under discussion at the time of writing, will introduce technical components that will lead to increased queries towards existing systems, implementation of new functionalities and, in some cases, re-architecting of the systems to interact with these components. The implications of interoperability will therefore have significant effects on planning for system evolution in the coming years; the Agency will ensure that all tasks stemming from the proposals will be properly implemented and in good time. One of the earliest developments will be a shared biometric matching service (SBMS) that should offer capabilities to deal with current biometric identifiers (such as fingerprints) and any future identifiers (e.g. face or iris) depending on changes to the legal bases. System evolution to enable utilisation of this resource will have to be considered.

The period 2019-2021 will also see enhancement and automation of the data quality control of the systems managed by the Agency.

To ensure timely, effective and efficient evolution of systems, the Agency is planning to verify that the result of the Virtualisation Active/Active Study regarding the choice of infrastructure technologies meets the business

requirements for applications. Continuing from (a) the virtualisation test phase to be conducted in 2018 and (b) the virtualised test environments of the different core business systems, the aim for 2019-2020 will be to prepare the virtualisation of the core business systems and to integrate them step by step into the already implemented common shared infrastructure. As well as evolving the existing large-scale IT systems to take advantage of improvements in technology, render them compatible with developments in systems interoperability and offer end-users improved services, significant changes will have to be implemented based on revision of the applicable legal bases. Thus, in the period in question, the Agency will implement all activities stemming from the planned changes to the VIS, Eurodac, Dublinet and SIS regulations.

### Schengen Information System

From a technical perspective, in the coming years the central SIS will evolve to ensure that additional capacity for alerts and queries can be properly implemented with the highly demanding performance requirements associated with the system. At least some of the changes will stem from requirements introduced by the interoperability legislation. They will require the implementation of a state-of-art search engine, enhancement of system availability and consideration of transcription aspects (adding infrastructure). The second phase of the SIS automated fingerprint identification system (AFIS) project will be launched in 2019, building on the successful rollout of the AFIS solution at the beginning of 2018. It will aim to develop further capabilities of AFIS, focusing on its response time and other technical aspects, and on some of the requirements of the SIS recast<sup>16</sup> such as fingerprints or palm prints. In particular, the facial recognition requirements of the SIS recast will be subject to an automated biometric identification system (ABIS) for SIS (facial recognition), to be initiated in 2020.

In line with the updated SIS legal basis, adopted on 19 November 2018 and coming into force on 27 December 2018, the Agency will implement additional categories of alerts, fields and other functionalities (including biometric facial recognition and DNA), which will significantly increase current SIS central system capacities. The new legal basis also aims at increasing the availability of SIS for the end-users, increased application of data quality control and monitoring statistics and wider access inside Member States and for EU institutional users; all necessary changes will be fully implemented.

The Agency will also execute the necessary tasks to implement the registration of return decisions<sup>17</sup> and entry bans into SIS, thus improving its capabilities to support the EU return policy, in particular:

- creation of SIS alerts on irregular migrants subject to return decisions;<sup>18</sup>
- the use of facial images<sup>19</sup> for biometric identification (ID) in addition to fingerprints;

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<sup>16</sup> OJ L 312, 7.12.2018, p. 1-106.

<sup>17</sup> Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the use of the Schengen Information System for the return of illegally staying third-country nationals.

<sup>18</sup> Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the use of the Schengen Information System for the return of illegally staying third-country nationals.

<sup>19</sup> Regulation (EU) 2018/1861 of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of border checks, and amending the Convention implementing the Schengen Agreement, and amending and repealing Regulation (EC) No 1987/2006, and Regulation (EU) 2018/1862 of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of police

- the creation of a new alert category of 'Wanted Unknown Person', for which forensic data may exist in national databases (e.g. a latent print left behind at a crime scene).

### **Eurodac**

The Eurodac system will continue to evolve technically, with capacity increases among the most notable enhancements likely to be necessary to keep it aligned with changes in migration flows. Following the adoption by the co-legislators of the recast Eurodac Regulation, eu-LISA will initiate/continue the implementation of the changes in Eurodac functionalities. At the time of writing this document, political agreement had been reached on the legislative text, although it was not clear when the final text would be adopted.<sup>20</sup>

The current Eurodac recast proposal reflects developments in the field of asylum and migration following the escalation of the refugee crisis and extends the scope of the system to serve other important needs in the field of migration. The system will better enable Member States to identify irregular migrants within the EU and facilitate the return of third-country nationals (TCNs) to their country of origin.

The evolution of Eurodac to comply with the new legal framework, once adopted, should include:

- extension of search and storage to all categories of data (asylum seekers, third-country nationals illegally present in the EU territory, third-country nationals apprehended illegally crossing EU borders);
- creation of new categories of data to handle people admitted under resettlement schemes;
- lowering of the minimum age of fingerprinting to 6 years (compared with 14 years, which is today's minimum) to better cope with minors arrivals, applications for international protection and secondary movements;
- extension of the data model to cover additional personal biographical data;
- storage of passport copies and other ID documents;
- extension of data retention period;
- inclusion of alphanumeric searches for law enforcement purposes;
- introduction of facial images — the Eurodac recast proposal includes the transmission of facial images to the central system.

The facial images would initially be stored and sent back to the Member States as part of the search result sets. eu-LISA will initiate a study, on approval of the legal basis, to further investigate the inclusion of face recognition

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cooperation and judicial cooperation in criminal matters, amending and repealing Council Decision 2007/533/JHA, and repealing Regulation (EC) No 1986/2006 of the European Parliament and of the Council and Commission Decision 2010/261/EU.

<sup>20</sup> The Eurodac recast proposal issued by the Commission, which included the budgetary provisions based on the Impact assessment done by eu-LISA, included only the updates presented in the 'Eurodac Recast Phase 1' project. During the legal negotiations, a number of additional items/functionalities were introduced by the stakeholders participating in the negotiations (e.g. inclusion of passport copies, alphanumeric searches, resettlements, etc.). For certain of these new items (e.g. passport copies and alphanumeric searches), eu-LISA was asked to perform a separate impact assessment in order to provide input into the negotiations. For others (e.g. inclusion of resettlements) no impact assessment was requested of eu-LISA. All these additional items (representing different possible modules or functionalities of the future Eurodac recast), not included in the initial proposal, have been identified as 'different' phases of the recast project. This provides clarity on the different tracks of the negotiations and on the additional budgetary requirements not taken into account in the initial proposal. In reality, if all these changes are finally approved with the recast regulation, the different projects will be implemented as separate work packages/ tracks within the same large project.

capabilities in the system, considering also the potential use of the shared biometric matching service to be implemented as part of the interoperability package. The study will focus on the modalities and different technical options, such as the impact on the Member States and on the current architecture, as well as providing an outline implementation roadmap for the face recognition capability (the implementation of the face recognition mechanism in Eurodac will only start on completion of the study and will be based on its conclusions).<sup>21</sup>

To better align Eurodac with today's technological reality and to enable the efficient use of the new functionalities introduced with the Eurodac recast (such as alphanumeric searches), an adaptation of the Eurodac communication model is considered. The current Eurodac communication model (email based) was designed as part of the initial architecture of Eurodac, which entered into operation in 2003. Although this communication mechanism has proven to be stable over the years, it is now considered technologically outdated. eu-LISA and the Member States have therefore considered since 2015 the possibility of switching to an up-to-date interface solution (based on web services). However, the migration crisis of 2015 led to a shift in priorities and eu-LISA prioritised, in agreement with its stakeholders, Eurodac capacity increases and other measures to deal with operational emergencies. The Eurodac recast proposal described previously introduces changes that will not be efficiently supported by the existing communication model. Under the new circumstances, and given future interoperability needs, eu-LISA plans to change Eurodac from a mail exchange-based system to a system based on web services.

In addition to the evolution of Eurodac, and to support changes introduced in the recast legal basis, a number of other technical changes may be implemented, such as:

- further capacity upgrades to cope with the impact of functional changes to the system's storage and transaction throughput, and possible changes to align or facilitate interoperability;<sup>22</sup>
- alignment with the shared services provisions and standards (based on the outcomes of the ongoing common shared services project);
- additional adaptations and technological improvements (e.g. at the infrastructure or monitoring level).

Finally, as far as the Eurodac system is concerned, subject to approval of the legislative proposals on interoperability of information systems and based on the relevant study on a shared biometric matching service and associated needs assessments, Eurodac might need to be re-engineered to:

- Use the shared biometric matching service.
- Separate the front-end layer of Eurodac implementing the business logic from the biometric matching services. Today the two layers (the front-end functionality making use of the biometric matching service and the biometric matching service itself) are not decoupled in the Eurodac architecture and

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<sup>21</sup> Subject to the adoption of the proposal for a recast Eurodac regulation.

<sup>22</sup> In December 2017, the Commission published a Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (police and judicial cooperation, asylum and migration) and a Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (borders and visa) and amending Council Decision 2004/512/EC, Regulation (EC) No 767/2008, Council Decision 2008/633/JHA, Regulation (EU) 2016/399 and Regulation (EU) 2017/2226 to address the necessity of interoperability of the systems.

are seen from the outside as a 'black box'. This increases the difficulty of utilising (if not making it impossible to utilise) a shared biometric matching service.

All changes to Eurodac will be contractually managed through the new Eurodac MWO, which has been in place since the beginning of 2018 (in the absence of the legal framework at the time of drafting, the budget required for the implementation of the Eurodac recast is not included in the Eurodac MWO contractual planning, which will have to be reconsidered accordingly).

### **DubliNet**

As regards DubliNet, the Eurodac recast proposal includes provisions to formalise the existing responsibility of eu-LISA for DubliNet as per the memorandum of understanding (MoU) of 2014. On approval of the above legal framework and in agreement/cooperation with the Member States, changes to DubliNet, for example changing the predefined PDF forms to further automated/XML web forms, will be assessed and implemented.<sup>23</sup>

### **Visa Information System**

For the period 2019-2021, eu-LISA will continue to ensure services of the VIS and Biometric Management System (BMS) through regular and comprehensive maintenance. Subject to an amendment of the VIS Regulation (proposals for a VIS recast were tabled in May 2018 and are being discussed by the co-legislators at the time of writing), eu-LISA will need to perform the necessary actions to ensure that all required changes stemming from this amendment are sufficiently introduced in the system. In 2019 (and until 2021), eu-LISA's main efforts will be focused on the evolution of the system in line with the planned VIS revision requirements, including interoperability with existing and future systems, and on keeping VIS and BMS transactional capacity aligned with business requirements. At the end of the period, the system should be fully aligned with the applicable legal provisions. Moreover, a flow control mechanism between VIS and BMS will be implemented to ensure more efficient use of the system throughput and to manage traffic variations better. This will be implemented with dynamic load allocation and VIS flow control.<sup>24</sup> Finally, VIS Storage Area Network components will be upgraded or replaced, and the capacity of the system's pre-production environment will be aligned with the test environment.

During 2019, Europol (European Union Agency for Law Enforcement Cooperation) will be integrated into VIS, for which a new configuration of VIS and BMS systems will be designed, built, qualified and deployed. Passive access for Bulgaria and Romania to VIS (to use VIS in read-only mode) will also be granted.

To assess the necessary resources required for an active/active solution, the Agency will carry out three impact assessments (IAs) in 2019, which will also look at the impact of the central repository for reporting and statistics and the common shared infrastructure on Eurodac, SIS II and VIS.

## **2.2. Operational management and evolution of the communication infrastructure**

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<sup>23</sup> The implementation of these tasks depends on the full transfer to eu-LISA of responsibilities to manage DubliNet.

<sup>24</sup> Dynamic load allocation and VIS flow control are compensatory measures in case active/active set-up for VIS is not technically feasible.

The Agency currently shares responsibility for tasks related to the communication infrastructure with the Commission: eu-LISA is responsible for the supervision, security and coordination of relations between the Member States and the relevant service provider for the communication infrastructure for Eurodac, VIS and SIS II and the exchange of data between Supplementary Information Request at the National Entries (SIRENE) Bureaux. The Commission remains responsible for all other tasks relating to the communication infrastructure, in particular the tasks relating to the implementation of the budget, acquisition and renewal and contractual matters. Following the review of the establishing regulation of the Agency and of the systems' instruments, the transfer of the Commission's responsibilities for the network to eu-LISA is expected to happen within the reference period,<sup>25</sup> subject to the adoption of the revised establishing regulation. In addition, eu-LISA also manages VIS Mail and DubliNet.

On expiry of the secure Trans European Services for Telematics between Administrations (s-TESTA) contract and completion of the migration of the SIS II, VIS and Eurodac networks to the new network, Trans European Services for Telematics between Administrations — new generation (TESTA-ng), the Agency will continue to strive to optimise the communication infrastructure, building on the study carried out in 2017. eu-LISA will aim to implement a unified secure network for all systems under its management, in the event that the applicable legal basis is adopted. Furthermore, the Agency will continue, within the boundaries of its legal mandate, the preparatory activities (started in 2018) for the successor of TESTA-ng, as the TESTA-ng framework contract (FwC) will expire at the latest in 2020.

Moreover, the Agency intends to continue to study the trends in network infrastructure unification<sup>26</sup> through the unified wide area network perimeter project, intending to study the possibilities to improve the interconnection of the core business systems and the communication infrastructure. It will complement the unified network project carried out in 2017 and 2018, which focused on the communication infrastructure as such.

Tasks related to the operational management of the communication infrastructure will continue to be entrusted to third-party private sector providers. Such network providers will continue to be bound by the security measures laid down in the basic instruments for each system and in the SIS II and VIS network Commission decisions, and will have no access to SIS II, VIS or Eurodac operational data.

As part of operational activities, eu-LISA will further continue to monitor<sup>27</sup> the utilisation of its network connections and will take appropriate actions to make sure that such network connections have sufficient capacity for the needs of the Agency.

In 2019-2021, eu-LISA will continue to look for a way to optimise the efficiency of the secure network connecting the Member States with the central systems by:

- further developing the vision of the necessary evolution of the communication infrastructure;
- ensuring that the Agency possesses the necessary means for testing the improvements of the system

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<sup>25</sup> EURODOMAIN will remain an exception: the Agency will continue to share responsibilities with the Commission.

<sup>26</sup> Any further implementation might be subject to legislative amendments.

<sup>27</sup> Using the outcomes of the Advanced Network Statistics study carried out in 2017 and 2018.

and proper pre-production environment/network development environment through the implementation of a unified and standardised test platform and test processes;

- executing the preparatory activities for the successor of TESTA-ng within the limits of the Agency's legal basis, taking into account the outputs from the studies executed, e.g. the wide area network (WAN) optimisation study;
- maintaining and monitoring networks and systems under eu-LISA management to ensure security and reliability of communications infrastructure.

### **2.3. Development and implementation of new systems**

On 6 April 2016, the European Commission submitted a revised proposal for a Smart Borders package. It included a proposal for a regulation establishing an Entry/Exit System as well as a proposal for revising the Schengen Borders Code. The EES Regulation was published in the *Official Journal of the European Union (OJ)* on 9 December 2017 and entered into force on 29 December 2017. eu-LISA will start the procurement activities for the implementation of the new system as soon as the legal basis (including the necessary implementing acts that are currently the focus of work) is finally adopted. To enable the swift start of the development of the Entry/Exit System, the Agency initiated necessary preparatory tasks in 2016, including preparation of draft technical specifications for EES. The development of the EES will include software development, delivery of hardware, system software and communication infrastructure, and development of necessary technical documentation. The EES development project will be fully under way in 2019.

Entry/Exit System development will also mean that the VIS/BMS application will have to be evolved to accommodate changes required by the EES legal basis for the interconnection of VIS and EES. These activities may influence the VIS system and will require strong coordination and convergent activities.

On 16 November 2016, the European Commission also submitted a proposal for a Regulation of the European Parliament and of the Council establishing a European Travel Information and Authorisation System (ETIAS) and amending Regulations (EU) No 515/2014,<sup>28</sup> (EU) 2016/399,<sup>29</sup> (EU) 2016/794<sup>30</sup> and (EU) 2016/1624.<sup>31</sup> On 19 September 2018, the newly adopted establishing regulations for ETIAS<sup>32</sup> were published in the *Official Journal of the European Union* and entered into force on 9 October 2018. The adopted system will require visa-exempt third-country nationals to apply for an authorisation to travel in advance of their crossing of the EU external borders. Based on details submitted online in advance of travel, the system should enable

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<sup>28</sup> Regulation (EU) No 515/2014 of the European Parliament and of the Council of 16 April 2014 establishing, as part of the Internal Security Fund, the instrument for financial support for external borders and visa and repealing Decision No 574/2007/EC.

<sup>29</sup> Regulation (EU) 2016/399 of the European Parliament and of the Council of 9 March 2016 on a Union Code on the rules governing the movement of persons across borders (Schengen Borders Code).

<sup>30</sup> Regulation (EU) 2016/794 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Law Enforcement Cooperation (Europol) and replacing and repealing Council Decisions 2009/371/JHA, 2009/934/JHA, 2009/935/JHA, 2009/936/JHA and 2009/968/JHA.

<sup>31</sup> Regulation (EU) 2016/1624 of the European Parliament and of the Council of 14 September 2016 on the European Border and Coast Guard and amending Regulation (EU) 2016/399 of the European Parliament and of the Council and repealing Regulation (EC) No 863/2007 of the European Parliament and of the Council, Council Regulation (EC) No 2007/2004 and Council Decision 2005/267/EC.

<sup>32</sup> Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS) and amending Regulations (EU) No 1077/2011, (EU) No 515/2014, (EU) 2016/399, (EU) 2016/1624 and (EU) 2017/2226 and Regulation (EU) 2018/1241 of the European Parliament and of the Council of 12 September 2018 amending Regulation (EU) 2016/794 for the purpose of establishing a European Travel Information and Authorisation System (ETIAS).

determination of whether or not the presence of such persons on the territory of the Member States would pose an irregular migration, security or public health risk. The regulations envisage that a mandate is given to eu-LISA to develop and ensure the technical operational management of the system. System development will begin at the end of 2018.

Further to the Agency's role in the development and management of new systems (EES and ETIAS) and its crucial role in the technical implementation and development of interoperability between the large-scale IT systems, provision of ad hoc technical support to the Member States can also be expected in the light of the new tasks laid down in (Article 16 of) the Agency's new establishing regulation. Following the entry into force of the new regulation, the Agency may be requested to provide advice to Member States with regard to national system connections to central systems. eu-LISA may also be entrusted by a group of at least five Member States to develop, manage and/or host a common IT component to assist them in implementing technical aspects of obligations deriving from EU law on decentralised systems in the area of freedom, security and justice. The Agency is to be entrusted with these tasks only with the prior approval of the Commission and subject to a positive decision by the Management Board. The requesting Member States are to entrust the Agency with such tasks by way of a delegation agreement setting out the conditions for the delegation of the tasks and the calculation of all relevant costs and the invoicing method. All relevant costs are to be covered by the participating Member States.

The migratory crisis has exposed structural weaknesses in the design and implementation of the European asylum and migration policy: within its efforts to put in place the tools to better manage migration flows in the medium and long term, and in line with the approach set out in the European Agenda on Migration, the Dublin Reform proposal (Dublin IV proposal) introduces a new system for allocating asylum applications in the EU based on a distribution key. The new automated system will be developed to follow up on the automatic allocation mechanism and (re)distribute the asylum applications across the EU. Following the preliminary political agreement reached on the file on 19 June, it may be expected that the necessary legal basis is adopted in the beginning of 2019 and eu-LISA will then begin the process of developing the system.

Finally, the European Commission published a legislative proposal for establishing a centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons in December 2017. This proposal for ECRIS-TCN envisages the creation of a centralised database, which will make it possible to verify quickly if any Member State holds conviction information on a non-EU citizen. Following any such 'hit', Member States would request detailed conviction information through the existing decentralised European Criminal Records Information System (ECRIS) directly. eu-LISA is to be the management authority for the development and later the operational management of ECRIS-TCN. Additionally, as part of the 'pre-project' phase, eu-LISA will continue to support the European Commission in the creation of the implementing act and related functional and technical challenges. In this regard, it is supporting the ongoing Commission study establishing the baseline for these acts.

Interinstitutional negotiations on the ECRIS-TCN proposal continue. The Agency stands ready to begin implementation of the system once the legislation is adopted.

#### **2.4. Security and business continuity**

To achieve the strategic objective of strengthening the Agency's security, cybersecurity and information management capabilities, the Agency has put in place a strategic approach to:

- consolidate the security and business continuity governance of eu-LISA;

- strengthen the operations and solutions necessary to tackle the challenges faced by the Agency and the systems under its responsibility during the period 2019-2021.

The ultimate goal of the strategy is to ensure that eu-LISA will maintain the highest levels of security and business continuity to ensure the fulfilment of its mandate.

With the Agency moving to two new buildings in 2017 and 2018 in Strasbourg and Tallinn, respectively, the work plan for the Protective Security Function will be focused on managing the implementation of physical security improvements for the two new buildings and for managing the day-to-day delivery of security services to protect the personnel, facilities and sites. The safety and security of everyone in eu-LISA's premises will be continuously facilitated by the emergency framework, which comprises updates, training and exercises.

The Protective Security Function will also work on continuously refining and testing the business continuity and disaster recovery plans for the Agency and the systems under its responsibility through the implementation, operation, improvement and continuous evolution of the end-to-end approach as described in the Security and Continuity Strategy 2016-2020. Following similar exercises for the VIS and the SIS previously conducted in 2017 and 2018, respectively, an end-to-end business continuity and disaster recovery exercise for the Eurodac system (involving when necessary national systems) will be performed together with the Member States.

The Security Unit will continue to provide strategic security and outreach to stakeholders through the organisation of the Security Officers Network<sup>33</sup> to facilitate the exchange of information, best practices, advice and guidance among security experts. This has become the enabling forum for coordination between eu-LISA, the institutions, bodies and agencies in the justice and home affairs area and the Member States and Associated Countries.

The Information Security and Assurance Function has two main areas of work within the planning period. The first area of work concerns the day-to-day delivery of the information security and assurance service. This involves the execution of operational information service processes, such as govern, assess, assure, protect, monitor, respond and recover (based on the ISO 27001 Information Security Management System), to maintain a high level of information security and assurance for all large-scale systems under the responsibility of the Agency. The second area of work covers the development and evolution of the technical security architecture in accordance with the roadmap outlined in the Agency technology strategy to strengthen the resilience of the large-scale systems to security incidents and cyberattacks.

The Agency's technology strategy has developed the target state for the information security management service, which envisages a comprehensive cybersecurity programme based on:

- Standardised security architecture, based on the most relevant, advanced and effective security controls to protect against threats and on accepted good practice, such as the Center for Internet Security (CIS) Critical Security Controls. The focus is on the basics such as application whitelisting and patching, technical vulnerability management, privileged management and identity and access management.

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<sup>33</sup> An informal network of security experts exchanging best practices on security and business continuity, advising the Management Board and the advisory groups upon request.

- Continuous monitoring and analytics to provide risk-based, actionable insights to enhance the security situation further (e.g. system behavioural analytics).
- Stronger communications security and trust through the development of a robust internal public key infrastructure (PKI).

The implementation roadmap sets out the following milestones:

- 2017: improvement of security management fundamentals such as vulnerability management, patching, secure configuration, portable media security, audit logging and security testing. Development of the baseline security controls based on ISO 27001/2 and good practice. Initiation of the development of the continuous monitoring approach through the design and development of the Security Information and Event Management System (SIEM) in the CSI project. Initiation of the design and development of the PKI project.
- 2018: continuation of the improvement of the security management fundamentals through the development of an automated technical vulnerability testing platform, implementation of a privileged management system and enterprise threat management (second phase of the common shared security infrastructure in the CSI project) and completion of the SIEM and PKI projects.
- 2019: integration of the core business systems into the SIEM. Development of the identity and access management system (third phase of the common shared security infrastructure in the CSI project).
- 2020: consolidation of the virtual Security Operations Centre concept (remote access to security monitoring dashboards and alerts via a secure VPN service). Implementation of advanced threat behaviour analysis solutions (in the CSI).

In addition, eu-LISA is currently developing implementing rules on COM Decision 46/2017 related to information security, including ancillary procedures to be aligned with the most recent COM's security notices on information markings.

## **2.5. Core business support activities (statutory reporting for systems, external technical training, technology research, etc.)**

During the period 2019-2021, the Agency aims to continue complying with all management and statutory reporting requirements (as set out in the current legal bases for the systems under its management). In particular, it will continue to report to the European Parliament, the Council and the Commission as follows:

- publishing each year SIS II statistics as per Article 66(3) of the Council Decision 2007/533/JHA and the parallel provision in Regulation (EC) No 1987/2006;
- submitting every 2 years — in 2019 and 2021 — a technical report on the functioning of SIS II including security pursuant to Article 46(8) of Council Decision 2007/533/JHA and parallel provision in Regulation (EC) No 1987/2006;
- submitting every 2 years — in 2020 — a technical report on the functioning of VIS including security pursuant to Article 50(3) of Regulation (EC) No 767/2008 and Article 17(3) of Council Decision 2008/633/JHA;
- submitting each year a report on the activity of the Eurodac central system including on its technical functioning and security pursuant to Article 40(1) of Regulation (EU) No 603/2013;
- publishing each year Eurodac statistics as per Article 8(2) of Regulation (EU) No 603/2013.

In addition, eu-LISA will continue to ensure publication in the OJ on an annual basis of the list of competent authorities, which are authorised to search directly the data contained in SIS II, together with the list of national SIS II offices and the national SIRENE Bureaux (as per Article 31(8) of Regulation (EC) No 1987/2006 and parallel

provision in Council Decision 2007/533/JHA), and to publish annually on its website the updated list of designated authorities, specifying the exact unit having access to the data recorded in the Eurodac central system as per Article 27.2 of Regulation (EU) No 603/2013.

The Agency also aims to comply with statutory reporting obligations stemming from new legal instruments (e.g. creating new systems or amending the current ones).

eu-LISA will continue to provide high-quality training on the technical use of systems under its remit (SIS II, VIS, Eurodac) to participating national authorities in cooperation with the European Commission, partners from JHA agencies and the Member States. In the period 2019-2021, a special focus will be on the establishment and subsequent reinforcement of the training portfolio related to the EES and ETIAS. The process of creating this specific training portfolio will involve all relevant stakeholders, with particular emphasis on Frontex (European Border and Coast Guard Agency), the European Union Agency for Law Enforcement Training (CEPOL) and the European Commission. The current target group for eu-LISA training (national IT operators, SIRENE and Schengen evaluators) will be further extended with new profiles arising from new systems. Following the experience eu-LISA obtained in preparation and delivery of newcomer programmes for the Member States joining the systems, the Agency, together with other relevant partners, will prepare tailored accession training programmes which will aim to (a) achieve the technical readiness of the Member States for integration to the systems and (b) support the Member States through the post-deployment phase. If considered necessary, the Agency may also provide technical training on systems under its remit to other JHA agencies, taking into account applicable legal framework.

The involvement of eu-LISA in the training activities within the EU Policy Cycle/**European multidisciplinary platform against criminal threats (EMPACT)** or similar initiatives related to combatting cross-border crime should continue. In addition, the role of the Agency as an active contributor to the European training landscape, providing training on large-scale IT systems and internal security, should continue in the period 2019-2021, following the positive example of eu-LISA's involvement in EU Strategic Training Needs Assessment, guided by CEPOL. Finally, for the period 2019-2021, the e-learning component of eu-LISA should continue to follow all developments in the area of e-learning. The training offer of e-learning materials will be further increased, and the introduction of simulation environments should be taken into consideration. Initiatives to connect learning management systems and consequently share e-learning products between JHA agencies should be further explored. Finally, for the period 2019-2021, the e-learning component of eu-LISA should be further reinforced following all developments in the area of e-learning and management of online learning systems.

The scope of research-related activities undertaken by the Agency is expected to increase, based on the provisions of Article 14 (together with Preamble 19) of the Agency's new establishing regulation. Specifically, the implementation of parts of the Framework Programme for Research and Innovation that relate to large-scale IT systems in the area of freedom, security and justice is envisaged.

Given that several new systems will be developed and/or implemented in the period 2019-2021, specific efforts will be made to incorporate the latest relevant developments in research and technology into projects focused on the new systems' implementation as well as the evolution of the systems already in operation. Additionally, research monitoring work will provide some of the in-depth knowledge and insight required for the Agency in its aforementioned actions as a reliable partner and advisor on topics pertaining to the operational management of large-scale IT systems in the area of freedom, security and justice. In this manner, policy-making and implementation efforts will be aligned and cognisant of the actual state of development of relevant technologies.

The priority topics for research monitoring will be identified early each year in the technology monitoring action

plans that will be discussed on each occasion with the Agency's advisory groups (AGs), thereby ensuring that the most relevant knowledge is assimilated to support system development and evolution. As noted below, topics related to interoperability will probably be heavily emphasised and may include an examination of current standards applicable to and proposals for new standards related to multimodal biometric systems. Examination of analytics-based approaches to boosting data quality and risk analysis may be proposed given the proposed new Agency mandate in improving data quality and the relevance of risk analysis to ETIAS. The Agency's Research and Technology Monitoring Strategy 2018-2020, to be approved by the Management Board, will elaborate specific approaches to monitoring, internal and external knowledge dissemination and incorporation of learning into system-related projects. Building on lessons learned from implementation of the first such strategy, which ran from 2015 to 2017, particular efforts will be made to ensure close work between those responsible for research monitoring and those working directly with system development and implementation. This will be achieved, inter alia, through the placement of staff responsible for technology monitoring directly into relevant project teams.

As the Agency takes responsibility for new systems and the efforts towards the implementation of interoperability of IT systems increase, it is anticipated that the Agency will increasingly work with teams of a cross-functional nature examining topics, procedures and technologies that are horizontal across IT systems. Thus, without pre-empting the detailed analysis to be undertaken on priority topics referenced in the previous paragraph, research and technology monitoring in the period 2019-2021 is expected to significantly focus on interoperability-related technologies and technologies associated with services horizontally applicable across the different IT systems. The Research and Technology Monitoring Officer/team will also play an important role in the cross-functional teams noted.

External outreach will also continue to be an important element of research monitoring activities. The practice of biannual public reporting of technology monitoring outcomes will continue; in particular, targeting Agency stakeholders who should be aware of relevant developments to ensure up-to-date input to EU-level discussions as well as the evolution of national IT to match that at the central level. Reports will also be available to the European Commission, Council, European Parliament and European Data Protection Supervisor, fulfilling the Agency's legal obligations in this regard.

## **2.6. Corporate governance**

The Agency will continue to maintain and refine the processes in place for operational management of the systems by following standards and best practice for ITIL/ITSM. Thus, eu-LISA will be able to identify further and implement activities to improve service quality and the efficiency and effectiveness of the established ITSM processes and the service model, significantly improving process integration<sup>34</sup> as well as the cost-effectiveness of delivering IT services without sacrificing customer satisfaction. Continuously evolving its operational model towards compliance with industry standards for ITSM, besides the service delivery processes, resolution processes and control processes, the Agency will develop and implement the needed relationship processes, namely demand management, business relationship management and supplier/vendor management, aiming at a much better alignment with stakeholders' requirements and expectations, thus aiming to ensure a higher overall level of stakeholder satisfaction. Next to that, the strengthening of the Agency's integrated process and service model aims at providing much more efficient and effective ongoing control, greater efficiency and

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Process integration is a key point in IT service management best practices.

opportunities for continuous improvement of all eu-LISA services.

In parallel, the Agency will seek to put in place a significantly enhanced service and process measurement via the establishment of the Agency's service measurement tree and automation of reporting on the relevant key performance indicators (KPIs) and SLAs/OLAs. Thus seeking greater effectiveness, the Agency will focus on the proper implementation and use of the knowledge database and knowledge sharing among stakeholders. All these planned activities will be based on the efficiently run continual service improvement process.

eu-LISA will continue to strengthen its capabilities to plan and implement its projects and programmes by enhancing its project management process, putting in place the necessary tools to support its activity and building up mechanisms well linked to the Agency's governance.

To enhance the efficiency and effectiveness of service support and delivery, changes to the internal tools that support internal process organisation and integration, and to the development lifecycle, are planned. The purpose is to introduce (a) specific tool(s) available in the market to support the automation of the different phases or areas involved in the development cycle and ITSM, such as requirement analysis and design, version control, software testing, further process integration and further report automation.

Continuing the approach taken in previous years, the Agency's governance framework's primary focus for the period 2019-2021 will be to facilitate the implementation of eu-LISA's long-term strategy. For this purpose, it will be amended accordingly, should the Agency take responsibility for new systems, to provide appropriate consultation and management between the Agency and its stakeholders.

eu-LISA's governance framework will hereby continue consisting of elements such as corporate risk management, corporate KPI performance management, compliance management with internal controls and corporate quality management and providing legal advice to ensure that statutory requirements and relevant business needs are met and the Agency adheres to the concept of practicing and delivering good governance in its actions and activities.

Furthermore, eu-LISA will mature its governance framework by amending and updating its ITIL/ITSM governance roadmap, based on a framework of best practices for adopting an IT service management approach, according to the existing and new requirements of stakeholders. Additionally, for the period 2019-2021 continuous updates to the Agency's services and processes will remain an important task to maintain eu-LISA's efficiency and effectiveness in delivering its services. With regard to the outcomes and results related to the first implementation of a corporate quality management framework in 2017, the Agency will continue its efforts in this area in 2019 by laying the ground work and planning for a follow-up quality management exercise, performing the assessment in 2020 and having the results initially implemented during 2020 and 2021 and thereafter.

The performance of the above capabilities will be embedded and linked to the Agency's overall planning and reporting cycle, which will transparently support the Agency and its stakeholders in delivering results according to requirements and expectations. The ongoing production and reporting of such management information, based on aspects of corporate governance, will continue to assist the Executive Director in managing the performance of the entire organisation and will enable the Management Board and advisory groups to perform their roles of 'challenge and support' to the Executive Director. In addition, the Agency will enhance its planning application to integrate data into the activity-based costing and budgeting platform, to be ready by the end of 2018. Another important development will be the modelling of payment milestones associated with deliverables in project management, which is expected to strengthen the multi-annual planning and monitoring of payment appropriations. These initiatives, as building blocks for a corporate information and management system (CIMS), will enrich planning, monitoring and reporting in the financial area, facilitating well-informed

decision-making by structuring and presenting management information based on pre-defined needs, and thereby contributing to the Agency becoming a centre of excellence.

The focus of operational planning will be on fine-tuning the use of the updated single programming document template to better satisfy the needs of eu-LISA's stakeholders and to use the approach to better perform the internal planning of units' and sectors' work and usage of resources. Particular effort will be put into strengthening and fine-tuning the ex-ante evaluation of activities with substantial impact based on the relevant Management Board decision and applicable rules. The Agency will further upgrade its application for automating the collection of information for annual planning and reporting. Regular review of the implementation of the long-term strategy will be carried out. The Agency will continue to inform its stakeholders and the general public about its performance by regular publication of its annual activity reports and other interim reports where necessary.

The Management Board and the Executive Director will continue to rely on eu-LISA's Internal Audit Capability (IAC) for independent, objective assurance on and insight into the effectiveness and efficiency of governance, risk management and internal control processes. IAC aims at helping eu-LISA to achieve its annual and multi-annual goals and strategic objectives.

eu-LISA will continue to cooperate with the European Court of Auditors and the Internal Audit Service of the European Commission, hosting their audit missions and taking measures to respond to the resulting recommendations as appropriate. IAC will continue to coordinate work in this area.

In 2019, IAC will implement the first audits planned with the second Strategic Internal Audit Plan issued after the implementation of the full risk audit assessment in 2018. IAC also intends to have established the capacity to deliver regularly IT audits to align with the Agency's operations and project management. With close supervision and compliance with the auditing standards, IAC will contract out IT audits either by using an existing framework contract or by initiating new procurement procedures.

eu-LISA will implement in 2019 the next levels of the Internal Audit Capability Model (which has levels 1 to 5), from level 4 (managed) to level 5 (optimised), thus using IAC as a catalyst for improving its effectiveness and efficiency by providing insight and recommendations based on analyses and assessments of data and business processes.

## ***2.7. Policy, stakeholder relations and communications***

In terms of fostering cooperation with EU institutions and bodies, eu-LISA will continue to act as a trusted and reliable partner and advisor on topics pertaining to the operational management of large-scale IT systems in the area of freedom, security and justice.

In this context, the Agency will continue to follow the work of the relevant Council preparatory bodies dealing with legal proposals, operational initiatives and other matters relevant for the Agency as well as the Committee on Civil Liberties, Justice and Home Affairs (LIBE) of the European Parliament when invited. Agency experts will be made available to ensure that eu-LISA's knowledge and experience in the development and operational management of large-scale IT systems can serve as a basis for well-informed and fact-based decision-making. Furthermore, the Agency will continue providing its technical expertise and sharing its knowledge with the Member States, EU institutions and EU Council presidencies. This work will include, inter alia, dissemination of research, operational and statistical reports in line with legislative requirements, delivery of high-quality training and provision of advice in discussions with eu-LISA governance bodies. Furthermore, in line with the provisions of the new eu-LISA regulation, enabling the Commission and Member States to request ad hoc support and advice from the Agency, the Agency will work to ensure that knowledge accrued through its activities and

operations is available in the event of such requests.

eu-LISA will continue maintaining close and effective relations with the European Commission and will look into the further development of the existing partnership. In this respect, the full application and implementation of the provisions of the memorandum of understanding between eu-LISA and the Directorate-General for Migration and Home Affairs (DG HOME) concluded in 2014 will be ensured. The overall aims will include mutual coordination of actions, the creation of synergies and ensuring regular dialogue.

Effective cooperation will also be maintained with the Member States and the Associated Countries as the main stakeholders of eu-LISA with respect to the Agency's activities and services. The Agency will seek to reinforce its strong working relations with the JHA counsellors further and to intensify cooperation with the diplomatic corps of EU Member States. The organisation of tailored external communication and outreach events will be an important element of such work. The outreach of previous years will be intensified in the period ahead, in particular to keep such stakeholders updated on the rapid changes associated with new system development that are under way.

EU agencies will continue to be an important group of eu-LISA stakeholders and partners. eu-LISA will continue the implementation of the provisions of the working arrangements concluded with several justice and home affairs agencies such as CEPOL in 2013, Frontex and the European Asylum Support Office (EASO) in 2014, the Fundamental Rights Agency (FRA) and Europol in 2016 and Eurojust in 2017. Close cooperation will be continued at a strategic level with other agencies from the justice and home affairs area, such as the European Institute for Gender Equality (EIGE) and European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), in particular through the JHA agencies network. In addition, eu-LISA will work towards further consolidation of its cooperation with the European Union Agency for Network and Information Security (ENISA) based on the working arrangement from 2017. eu-LISA will continue to collaborate actively and participate in the activities of the justice and home affairs agencies network and the wider network of EU agencies.

The Agency may also seek to develop service sharing with other agencies in the spirit of the common approach<sup>35</sup> and following the adoption of its revised mandate (i.e. Article 41(4) Cooperation with Union institutions, bodies, offices and agencies). Subject to the Commission's prior approval, within the limits of the relevant mandates and without prejudice to their core tasks, services (to be investigated) to be provided to other agencies may include hosting of backup infrastructure, provision of software, platform and/or infrastructure and/or provision of advice and support in the context of secure operational management of large-scale IT systems. Alignment with the Agency's service portfolio will ensure that such service provision is undertaken in a streamlined and efficient manner.

Further steps will be taken to enhance collaboration with academia, research entities and the industry at European and global scale. Extension of the Agency's mandate in research to render it responsible for management of some elements of the EU Framework Programme for Research and Innovation will bring new opportunities in this regard and should result in possible collaborations that will be win-win for all parties involved. A new Research and Technology Monitoring Strategy will be elaborated to delineate how these new responsibilities can optimally fulfil the Agency's objectives. Generally, the Agency will make consistent efforts

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<sup>35</sup> Annex to the Joint Statement of the European Parliament, the Council of the EU and the European Commission on decentralised agencies of 23 July 2012, point 23. Available at: [https://europa.eu/european-union/sites/europaefiles/docs/body/joint\\_statement\\_and\\_common\\_approach\\_2012\\_en.pdf](https://europa.eu/european-union/sites/europaefiles/docs/body/joint_statement_and_common_approach_2012_en.pdf)

to drive research efforts towards outcomes that will benefit its work and the operational management of large-scale IT systems while fulfilling the stated goals of the programmes themselves. The close contacts established through such work will ensure the rapid uptake of detailed knowledge that is necessary for incorporation into work to evolve the systems and support stakeholders.

The core purpose and focus of eu-LISA's external communication will remain unchanged and follow the principles set out in the eu-LISA External Communication and Information Strategy for 2017-2020. External communication will provide, through integrated communication efforts, added value to the core role of the Agency as defined in the legal provisions of the updated mandate. The communication objectives, goals and messages will be associated with eu-LISA's overall strategic objective for 2018-2022 and beyond and will aim at increasing the visibility, credibility and accurate understanding of the Agency's work among its external stakeholders and the general public. Enhancing the transparent and mutually beneficial relationships between the Agency and its stakeholders will be an ongoing task involving proactive relations with target audiences such as the Member States, the EU institutions and industry. In addition, being accountable to the general public, the Agency will make use of updated formats to disseminate regular, factual and timely on- and offline information in an easily understandable way about its mandate, activities and increased responsibilities.

The Agency will continue to develop and execute internal communication with the aim of fostering eu-LISA's corporate standards, culture and values. eu-LISA will further promote information and knowledge-sharing as well as employee engagement initiatives across the different sites of the Agency. Internal communication will be managed in line with the eu-LISA Internal Communication Strategy 2016-2020 and an update to the strategy for the next 5 years will be initiated. Emphasis will be placed on further facilitating two-way communication between the staff and the management by making use of the variety of available communication tools and initiating updated formats for the benefit of the staff.

## **2.8. *Financial management, procurement and accounting***

The Agency will continue to fine-tune its internal financial processes and procedures by ensuring transparent and effective management of available budgetary and financial resources. In particular, eu-LISA will further aim to reach the intended targets in budget execution through improved accuracy of its budgetary forecasting. eu-LISA will also continue to monitor and evolve its financial and procurement procedures, establishing the elements necessary to further develop the implementation of activity-based costing and budgeting, deployed in 2018.

In addition, the Agency's procurement activities will be further streamlined by consolidating its procedures, including e-procedures, namely e-tendering and e-submission. The activities will also aim to maintain and improve capabilities to provide proficient advice on best practices and to increase pricing transparency in contracts supporting the systems. A particular focus in the period 2019-2021 will be to ensure the required agility to procure goods and services or source additional external resources to be able to address evolving political priorities in the EU and their impact on eu-LISA in a timely manner, thereby optimising the lifecycle cost of contracts.

## **2.9. *Facilities and corporate services***

To address the increased workload and number of staff needed to work on the site, a construction contract for the reinforcement of the operational site in Strasbourg was signed in 2014, and the reconstruction project is at its final stage of acceptance.

However, the Agency expects a further, significant increase in the staff count (as well as contractors regularly

present on the site) related to the new systems and tasks assigned to the Agency. Based on current information, the number of staff at the Strasbourg operational site will grow from 158 in 2018 to 287 in 2022, an increase which is incompatible with the size of the operational site even after the reconstruction project is finalised. On top of the statutory staff mentioned above, the Agency provides working space to various contractors for their daily presence. It is expected that up to 140 contractors will be present on the site. Therefore, eu-LISA will ensure up to 427 working spaces at the operational site in Strasbourg. Moreover, as a result of eu-LISA's extended mandate — the new systems that will be entrusted to the Agency and the new services that will be made available to the Member States — there is a need for greater data centre capacity than exists today, or could have been thought necessary in 2014, when the first building project was designed. In addition, significant changes are expected to the systems already managed by eu-LISA.

Considering the experience gained and lessons learned from the current reconstruction project, eu-LISA intends to delegate the design related to the building project to a contracting authority, selected via a procurement procedure. The delegated contracting authority will be given a mandate contract to act on behalf of the Agency and to manage the project as a whole, replacing eu-LISA as the project holder, from which it will receive guidelines and instructions on the objectives to be achieved. Reconstruction works will be executed in the following years by a third party, selected through a separate procurement procedure.

The feasibility study presented to the Management Board in 2017 provided indications regarding a provisional project timeline and budget. However, a more detailed assessment and studies are to be undertaken as part of a business case, which, at the time of writing this document, is in progress, and will be presented in November 2018.

Taking into account, on the one hand, the timeline for the development of new large-scale IT systems entrusted to the Agency (EES, ETIAS, ECRIS, SIS (recast) and Eurodac (recast)) and increased number of staff and contractors expected in the period 2019-2021, and, on the other hand, the timeline for the second reinforcement of the operational site, it will be necessary to provide temporary office space for the increased number of people working in the operational site in Strasbourg until new office space is available. To address the need for workspace and, in particular, for the expansion of the data centre, eu-LISA will use temporary solutions until the project for the new extension of the technical site is finalised, such as rented office space and modular data centre facilities.

As regards the headquarters (HQ) in Tallinn, the Agency moved to its new premises in 2018, and in 2019 the new premises are expected to be fully operational. If needed, improvements to the working environment from a functional perspective will be carried out, as well as necessary regular maintenance works according to the Agency's strategic objectives.

A further substantial effort will be made to implement various environmental measures like the Eco-Management and Audit Scheme (EMAS) certification and calculation and to reduce the carbon footprint. Through the cooperation of various eu-LISA entities, health and safety will be a high-priority area in all sites via everyday implementation of relevant actions and preventive measures. In parallel, in this period the upgrade of the Agency's liaison office in Brussels should be complete, relocated to the joint liaison offices building together with other JHA agencies. A dedicated logistics and supplies chain should be established for the liaison office.

### **Corporate IT services**

The main priorities in 2019 will be the establishment and rollout of a maintenance in working order agreement for the regular maintenance of the corporate system, network and storage and virtualisation infrastructure in Tallinn, Strasbourg and the liaison office in Brussels. In parallel, the evolution of the corporate system, network and storage, and virtualisation architecture of the Agency will continue to be pursued and achieved with a range

of diverse initiatives. Moreover, the customisation and modernisation of corporate IT applications — namely collaboration platforms, communications and project management tools — will take place, as well as the full production capabilities of Advanced Records System (ARES) and Sysper Commission pilots for document and HR management. Furthermore, the Agency aims to develop further eu-LISA's enterprise architecture during this period — an exercise the initiation of which started in mid-2017.

The achievement of an enhanced disaster recovery solution with the establishment of high availability for the majority of components of corporate IT infrastructure is envisaged by the end of 2020.

The replacement and modernisation of the Agency's corporate infrastructure after a 5-year period for most components will be carried out in 2021. Furthermore, the focus will be on the provision of better, safer and accelerated communication capabilities with regard to email, telephony, and internet and web communication, as well as on delivering a paperless Agency to the greatest possible extent by automating a number of the services under the Corporate Services catalogue.

### **2.10. Human resources and knowledge management**

The Human Resources and Training Unit (HRU) supports the rapidly developing Agency by ensuring the timely recruitment of staff for the tasks and projects assigned to the Agency and the replacement of staff who leave as a result of natural turnover. The activities in the human resources (HR) domain, such as establishment of rights and entitlements, payroll and payments, leave, and appraisal and reclassification processes must be performed accurately and in due time. The relevant IT tools for HR must also be further developed and implemented. Finally, learning and development activities and tasks will be executed in accordance with the agreed plan.

For the period 2019-2021, the HRU has identified three main areas of activities that cover all the day-to-day business actions in the area of human resources management and projects, described below.

*Optimisation and sound management of human resources in terms of organisational structure, processes and practices in compliance with the relevant rules and decisions.*

The primary aim of optimisation is to ensure that adequate resources planned are available during this period of growth and that the HRU itself is prepared for the challenge of the increasing staff numbers. In 2019, eu-LISA will continue to recruit additional staff allocated to the Agency under the revised establishing regulation and for the next phase of the Entry/Exit System and ETIAS. At the same time, the structure of the organisation may undergo changes, to which the entity needs to be able to respond in a flexible manner. As eu-LISA expects an increase of around 75% in staff in the coming years because of its expanding mandate, the administrative burden of the HRU will increase almost twofold. The additional workload will need to be absorbed primarily through optimisation and increased administrative efficiency. Throughout this time, it will also be critical that the regulations and rules are observed by the Agency as a whole and the HRU in particular. The activities performed in previous years will continue and projects initiated in previous years — for example, development and implementation of the competency framework or development of the health and safety policy — should be continued and concluded as planned. Integration and consolidation of new staff will be a focus of human resources management during these years.

*Development of the HR IT tools and their implementation.*

Basic Sysper modules should be implemented in the Agency and put in use by the HRU and staff by the end of 2019 as part of eu-LISA's approach to automate repetitive administrative duties using modern IT tools. The aim is to have plans adopted on which additional modules should be obtained and implemented during the following years.

As concerns the human resources management of all eu-LISA staff, the focus will be maintained on the

recruitment, integration and consolidation of the new staff members in the organisation to allow them to sufficiently engage in the work and reach the objectives set by the Agency.

*Training for eu-LISA staff related to operations (technical training for staff).*

The HRU will continue to provide courses related to operations and systems to eu-LISA's staff to be able to better perform and offer better services to the Agency's stakeholders.

### **2.11. Data protection**

The new regulation repealing Regulation 45/2001,<sup>36</sup> expected in May 2018, might influence the way the Data Protection Officer (DPO)'s work is structured and performed today. Its impact and how it will be implemented within eu-LISA needs to be assessed, and it is possible that new methods and processes to comply with the change need to be established.

As a consequence, new implementing rules on the processing of personal data will be required, leading to the revision of the current ones as approved by eu-LISA's Management Board. Taking into account the transitional period, the DPO plans to issue appropriate guidelines, tools and procedures to organise the future cooperation with relevant stakeholders in the application of the new framework (e.g. controllers, joint controllers, processors, data subjects), thereby ensuring consistency in its implementation. Privacy-by-design and privacy impact assessment are concepts that the deployment of new systems needs to incorporate in the project management process, strengthening compliance with legal obligations on data protection. The new large-scale information systems will have to duly incorporate data protection safeguards as prescribed in the new regulation and the adopted specific legal framework.

Evolving towards a robust data protection culture within an IT-focused organisation will still be a challenge that the DPO intends to achieve with the support of middle and top-level managers of eu-LISA.

The Agency plans to keep upholding data subject rights of eu-LISA employees by continuously raising awareness through organised sessions with eu-LISA staff. The changes that the new regulation will have on the monitoring activities of processing operations with personal data need new procedures in place — to be defined and agreed among the relevant stakeholders of the Agency — to inform the data subjects in a transparent way.

For strengthening the cooperation with other EU agencies mainly in the JHA area, the plan is to continue to grow by sharing experiences and adopting best practices from the recently formed network of JHA DPOs, based on an initiative of the eu-LISA DPO.

Cooperation with the European Data Protection Supervisor will continue to be a key element for the DPO, providing assistance with the inspections to the core business systems and guidance or opinions for privacy impact assessments on operations considered risky from a data protection point of view.

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<sup>36</sup> Regulation (EC) No 45/2001 of the European Parliament and of the Council of 18 December 2000 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data.

## 3. Human and financial resource outlook for the period 2018-2020

### 3.1 Overview of the past and current situation

#### 3.1.1 Staff overview for 2017 and 2018

The staff of eu-LISA consist of temporary agents (TAs),<sup>37</sup> contract agents (CAs) and seconded national experts (SNEs).

In 2017, the total number of TA staff authorised under the Union budget was equal to 131 posts for temporary agents in the establishment plan of the Agency, including 43 posts for the AST function group (FG) and 88 posts for the AD function group, 27 posts for contract agents and 9 posts for seconded national experts.

In 2017, the number of contract agents increased owing to the urgent need to replace or add some posts, which proved to be critical to the daily operation of the Agency. This increased the overall number of staff. The total staff population of eu-LISA consisted of 153<sup>38</sup> staff members including all the above-stated categories of staff: 114 temporary agents, 32 contract agents and 7 seconded national experts.

Table 1 — Staff overview in 2017

Area of activity	2017 authorised			2017 actual situation on 31.12.2017		
	TA	CA	SNE	TA	CA	SNE
Establishment plan/authorised posts	115	27	9	114	32	7
LFS <sup>39</sup> EES development	14 <sup>40</sup>					
LFS Eurodac	2 <sup>41</sup>					
Total FTEs	131	27	9	114	32	7

The turnover of staff in 2017 reached 3.27% (five people by 31.12.2017), not exceeding the target KPI of 5%.

For 2018, according to the draft general budget of the EU for 2018, the staff population is to consist of 136 temporary agents (113 posts in the establishment plan with a reduction of 2 posts in comparison with 2017, 16 new posts added in 2017 and 7 additional posts for ETIAS system<sup>42</sup>) split for 94 post in function group AD and 42

<sup>37</sup> These are posts in the establishment plan of the Agency. eu-LISA does not have officials' posts in its establishment plan.

<sup>38</sup> Ultimate figures can be added in January 2018 when the reporting for 2017 is done, because they should present status on 31.12.2017. Therefore, they cannot be confirmed at present (September 2017).

<sup>39</sup> Legislative financial statement

<sup>40</sup> Regulation (EU) 2017/2226 of the European Parliament and of the Council of 30 November 2017 establishing an Entry/Exit System (EES) to register entry and exit data and refusal of entry data of third-country nationals crossing the external borders of the Member States and determining the conditions for access to the EES for law enforcement purposes, and amending the Convention implementing the Schengen Agreement and Regulations (EC) No 767/2008 and (EU) No 1077/2011.

<sup>41</sup> Subject to the adoption of the legal basis.

<sup>42</sup> Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS). The establishment plan of eu-LISA has been increased in 2017 to allow for recruitment as soon as the legal basis is in place.

posts in function group AST, 41 posts for contract agents and 9 for seconded national experts. During the period 2019-2021, an increase of staff levels is envisaged due to the new tasks the Agency will assume.

The Commission's proposal for a revised eu-LISA establishing regulation envisages a total of 159 temporary agents to cope with the new tasks (36 + 19 = 155 in 2018, 136 + 21 = 157 in 2019, 136 + 23 = 159 in 2020), a total of 91 contractual agents (76 in 2018, 78.5 in 2019 and 91 in 2020) and a total of 11 seconded national experts.

Proposals for the new systems, which are subject to the adoption of the legal bases, also affect the staffing levels. Table 2 below presents the situation in December 2018.

Table 2 — Staff overview in 2018

Area of activity	2018 eu-LISA request			2018 authorised			Difference		
	TA	CA	SNE	TA	CA	SNE	TA	CA	SNE
Establishment plan/authorised posts	113	30	11	113	27	11		-3	
2018 PD — request for additional staff		17			0			-17	
LFS EES development <sup>43</sup>	14			14					
LFS Eurodac <sup>44</sup>	2			2					
LFS SIS II recast border/police cooperation <sup>45</sup>		3			3				
LFS SIS II recast return <sup>46</sup>		1			1				
LFS ETIAS <sup>47</sup>	7	10		7	10				
LFS ECRIS <sup>48</sup>		5			0			-5	
LFS revised ER — staff revision <sup>49</sup>	19			0				-19	
LFS revised ER — insourcing CAs <sup>50</sup>		45			0 <sup>51</sup>			-45	
Total FTEs	155	111	11	136	41	11		-89	

Planning for the period 2019-2021 with a more detailed description of developments is outlined in section 3.2.2, 'Human Resources, (b) Growth of existing tasks', where a 3-year perspective is presented. Changes to the staff

<sup>43</sup> Regulation (EU) 2017/2226 of the European Parliament and of the Council of 30 November 2017 establishing an Entry/Exit System (EES) to register entry and exit data and refusal of entry data of third-country nationals crossing the external borders of the Member States and determining the conditions for access to the EES for law enforcement purposes, and amending the Convention implementing the Schengen Agreement and Regulations (EC) No 767/2008 and (EU) No 1077/2011.

<sup>44</sup> Subject to the adoption of the legal basis.

<sup>45</sup> The SIS package was adopted on 28 November 2018 (OJ L 312, 7.12.2018, p. 1-106).

<sup>46</sup> Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the use of the Schengen Information System for the return of illegally staying third-country nationals.

<sup>47</sup> Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS).

<sup>48</sup> Subject to the adoption of the legal basis.

<sup>49</sup> Regulation (EU) 2018/1726 of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA).

<sup>50</sup> Regulation (EU) 2018/1726 of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA).

<sup>51</sup> Out of 45 posts requested for insourcing, 27 additional posts were included in the LFS for the new eu-LISA Regulation. However, it will be possible to recruit additional staff for the approved posts only after the corresponding budget is adopted.

quota during the period 2017-2021 are described in more detail in the tables in Annex III.

### 3.1.2 Expenditure for 2017

In 2017, eu-LISA managed a budget of EUR 153.3 MIO in commitment appropriations and EUR 67.7 MIO in payment appropriations received from the EU subsidy. The table that follows details the tasks that are subject to the adoption of the legal basis.

New tasks subject to new legal basis	Expected expenditures in MIO EUR
LFS EES development	56,445
LFS Eurodac	11,598
LFS Dublin Allocation	1,750
<b>Total budget subject to new legal basis</b>	<b>69,793</b>

The Agency retained its high budget implementation rate at the end of 2017:

- 100% for commitment appropriations;
- 100% for payment appropriations including the carry-forward of administrative expenditure to 2017.

For running the Agency (Title 1 and Title 2), 17% of the total budget is expected to be required, amounting to EUR 25.6 MIO, of which EUR 16.1 MIO is for staff expenditure and EUR 9.7 MIO for infrastructure and operating expenditure. The total executed operational budget amounts to EUR 127.7 MIO (83% of the total budget), out of which EUR 6.4 MIO is planned for SIS II, EUR 35.2 MIO for VIS, EUR 18.6 MIO for Eurodac, EUR 9.1 MIO for shared system infrastructure and system security and business continuity and EUR 54.5 MIO for the Entry/Exit System, subject to the adoption of the legal basis. Another EUR 3.7 MIO has been committed for, among other things, training related to operations and external support services related to core systems.

## 3.2 Resource programming for the period 2019-2021

### 3.2.1 Financial resources

Over the coming years, the Agency will manage an increasing budget owing to new tasks assigned, which are at the time of drafting this document still subject to the adoption of the relevant legal bases. The table provides an overview of the new tasks and the corresponding budget for the planning period 2019-2021, reflecting the sums indicated in the legislative financial statements (LFSs) attached to the legislation proposals.

New tasks subject to new legal basis	Estimated expenditures (in MIO EUR)		
	2019	2020	2021
LFS Eurodac*	5.868	0.268	
LFS Dublin Allocation	0.135	0.735	
LFS SIS II recast border/police cooperation*	2.261	2.192	
LFS SIS II recast return*	0.517	0.517	
LFS ETIAS*	14.231	59.879	22.892
LFS ECRIS*	4.116	4.116	
LFS revised ER — additional staff revision*	3.178	3.178	
LFS revised ER — insourcing of CAs*	-0.281	-0.281	
LFS revised ER — transfer of network	19.221	19.221	

LFS revised ER — studies/consultancy	4.000	4.000	
LFS interoperability	5.830	17.031	51.743
<b>Total budget subject to new legal basis</b>	<b>59.076</b>	<b>110.856</b>	<b>74.635</b>

\* Estimates include administrative expenditures, which will be allocated according to the budgetary nomenclature in Title 1, 'staff expenditure', and Title 2, 'infrastructure and operating expenditure' (if applicable).

Compared with the initial budget ceilings set out in the MFF<sup>52</sup> 2015-2020, the introduction of the new tasks imposes an increase of the expenditures by more than 200% over the envisaged programming period.

Annex I provides detailed information of operational expenditure by system, as set out in the PD 2019-2021 and multi-annual planning and justification for the budget. Annex II contains a budget breakdown according to the budgetary structure of the Agency, with operational expenditures grouped for each system by budgetary chapter.

### 3.2.2 Human resources

The numerical information for the planning of the Agency's human resources is presented in Tables 1 and 2 of Annex III, which provide the staff planning for the length of the multi-annual plan 2019-2021, while this chapter describes in more detail the staffing needs of the Agency.

The Agency planning takes into account the position of the European Commission as outlined in its communication<sup>53</sup> to the European Parliament and the Council, 'Programming of Human and Financial Resources for Decentralised Agencies 2014-2020', dated 10 July 2013, concerning the establishment plan figures.

At the same time, this programming document includes the staffing needs for the new systems as presented in the relevant LFSs and the requests that the Agency puts forward for the increase of its staff levels owing to the service needs described in detail below under 'Resource outlook for the period 2019-2021'.

Subject to the adoption of the legal bases, the main impact on the establishment plan will be from the Entry/Exit System and the ETIAS project, for which the establishment plan needs to be increased by 21 posts. A remarkable staff increase due to the planned changes to eu-LISA's establishing regulation from 2018/2019 is expected, increasing the staff numbers set out in the establishment plan by an additional 19 posts in 2018 and up to 23 posts in 2020. The additional posts, when the new regulation is adopted, will increase staffing to 157 TA posts in 2019 and 159 TA posts during the period 2020-2021. The abovementioned developments will result in the establishment plan being changed as follows.

Table A — Overview of additional posts for eu-LISA — temporary agents

Temporary agents (TA) — establishment plan change					
Status or project	Comment	2019	2020	2021	Cumulative 2019-2021
European Commission (2013) 519 baseline		113	113	113	113

<sup>52</sup> Multiannual financial framework.

<sup>53</sup> COM (2013) 519 final. It envisages that a reduction in staff (temporary agents) will result in the following staff levels: 120 in 2015, 118 in 2016, 115 in 2017 and 113 in 2018-2020.

Additional temporary staff for development of Entry/Exit System — European Commission (2016) 194	Expected from 2017	14	14 <sup>54</sup>	14	14
Additional temporary staff for development of ETIAS — European Commission (2016) 731	Expected from 2018	7	7	7	7
Additional temporary staff for Eurodac recast European Commission (2016) 272 subject to the adoption of the legal instrument	Included in establishment plan 2017	2	2	2	2
Additional temporary staff due to the changes to the establishing regulation (18 AD with progressive intake) <sup>55</sup>		16	18	18	18
Additional temporary staff for other activities — proposal of European Commission (2 ADs) with regard to the changes to the establishing regulation: - Finance and administration: 1 procurement/contractual officer (1 AD) - Network (shift of responsibilities from European Commission to eu-LISA) (1 AD)		2	2	2	2
Additional temporary staff for additional managerial resources following changes to the establishing regulation (1 Head of Department and 2 Heads of Unit)		3	3	3	3
Additional temporary staff for interoperability of systems — European Commission (2017) 793 final and (2017) 794 final subject to the adoption of the legal instrument (progressive intake of staff during the period 2019-2023)		14 <sup>56</sup>	25	31.5	31.5
PD 2019 request for post of Deputy Executive Director stemming from the revision of the establishing regulation		1	1	1	1
<b>TOTAL (including staff subject to the adoption of the legal instruments for the EES and ETIAS)</b>		<b>172</b>	<b>185</b>	<b>191.5</b>	<b>191.5</b>

An increase in SNEs is also envisaged, from 9 posts in 2017 to 11 in 2019, to help strengthen cooperation with the relevant Member States' authorities (see the table below).

*Table B — Overview of additional posts for eu-LISA — seconded national experts*

Seconded national experts (SNE) — 2019-2021					
Status or project	Comment	2019	2020	2021	Cumulative 2019-2021
The situation in 2017 taken as baseline	9 SNE posts planned in 2017	9	9	9	9

<sup>54</sup> Fourteen posts have been added for the development of the system pursuant to eu-LISA's establishment plan. The number of posts for 2020 and subsequent years will be reassessed in the course of the preparation of the draft EU budget for 2020, taking into consideration the specific needs relating to the operation of the system 24 hours a day and 7 days a week. The financial resources have been planned for an additional 17.5 posts. This is reflected in the increased number of posts in the table 'A global overview of additional posts for eu-LISA in the period 2018-2021', at the end of this chapter.

<sup>55</sup> The required job profiles are listed in the table 'Forecast for additional posts for the execution of tasks arising from changes to the establishing regulation' under point b), 'Growth of existing tasks', below.

<sup>56</sup> The Commission proposal contained 14.5 posts in 2019. However, in the budget adopted for 2019, only 14 posts have been authorised.

SNEs requested by eu-LISA to support the implementation of all the new activities from the legislative financial statements that would need Member States' expertise to provide the required business expertise	These 2 additional posts were approved by the MB of eu-LISA on 22 March 2017.	2	2	2	2
<b>TOTAL</b>		<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>

The contract agents are not part of the establishment plan but remain relevant from both a budgetary and workforce planning perspective. A large number of the CAs play a crucial role in the operation of the Agency. Therefore, it is envisaged that some of these posts will involve employment contracts of indefinite duration, or that the establishment plan of the Agency will be augmented to absorb a great many of the jobs in question in future.

The developments mentioned above will result in the following increase in staff for CA posts.

*Table C — Overview of additional posts for eu-LISA — contract agents*

Contract agents (CA) — 2019-2021					
Status or project	Comment	2019	2020	2021	Cumulative 2019-2021
Baseline	27 authorised CA posts in 2018	30	30	30	30
Additional contract staff for development of ETIAS <sup>57</sup>	10 FTEs expected from 2018	12.5	25	35	35
Additional contract staff for new SIS legal framework border/police/return <sup>58</sup>		4	4	4	4
Contract staff requested by eu-LISA (25 out of 45 posts for insourcing necessary services + 1 post approved by the MB and 1 proposed by the EC) <sup>59</sup>		27	27	27	27
Additional contractual staff for the development of ECRIS <sup>60</sup>		5	5	5	5
<b>TOTAL (including staff subject to the adoption of the legal instruments for the EES, ETIAS, SIS II and Eurodac (recast))</b>		<b>78.5</b>	<b>91</b>	<b>101</b>	<b>101</b>

### Resource outlook for the period 2019-2021

The main focus regarding the human resources of eu-LISA will continue to be on combining a regular and flexible development of in-house human resources with the outsourcing approach wherever this will be of added value

<sup>57</sup> Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS).

<sup>58</sup> The SIS package was adopted on 28 November 2018 (OJ L 312, 7.12.2018, p. 1-106).

<sup>59</sup> The LFS of the Commission supports insourcing of 25 posts out of 45 posts requested by eu-LISA and 2 additional posts: 1 of 2 approved by the MB and one additional for the support of Legal Officer.

<sup>60</sup> In accordance with the LFS for ECRIS, subject to the adoption of the legal instrument.

with regard to the activities performed to reach the objectives of the PDs of the Agency during the period 2019-2021.

#### a) New tasks

From 2017, the Agency is prepared to take responsibility for the development and operational management of the new systems, subject to the adoption of the relevant legal instruments and the amendment of the establishing regulation of eu-LISA, for example Entry/Exit System (EES), ETIAS, the automated system for registration, monitoring and the allocation mechanism for applications for international protection,<sup>61</sup> and DubliNet.<sup>62</sup>

In 2016, the Commission presented proposals to entrust new systems to the Agency: the Entry/Exit System (EES),<sup>63</sup> ECRIS-TCN<sup>64</sup> and the EU Travel Information and Authorisation System (ETIAS).<sup>65</sup>

While the Agency awaited the adoption of the relevant legal bases, eu-LISA's establishment plan was augmented in 2017. The preparatory recruitment work (selection of the suitable candidates and establishment of the reserve lists) had been initiated by Q3 of 2016 and continued in 2017. The employment contracts with the additional staff for the EES were signed in the first half of 2018, after the adoption of the relevant regulation, and for ETIAS they will be signed as soon as the legal basis is in place (relevant legislation was adopted in September 2018) and the recruitment process is finalised.

The detailed staff planning for these projects is as follows.

*Table — Forecast for additional posts required for the Entry/Exit System*

Unit	Profile	Grade	2017	2018	2019	2020	2021	Cumulative 2019-2021
AMMU	Programme Manager	AD8	1	1	1	1	1	1
AMMU	Project Manager	AD7	1	1	1	1	1	1
AMMU	Project and Technical Quality Assurance	AD5	1	1	1	1	1	1
AMMU	Test Manager	AD5	2	2	2	2	2	2
AMMU	Application Administrator	AD5	1	1	1	1	1	1
AMMU	Application Architect	AD7	1	1	1	1	1	1

<sup>61</sup> The amendments to eu-LISA's regulation have not been inserted in the Dublin recast proposal and in any event will be subject to adoption of that proposal.

<sup>62</sup> The amendments to the eu-LISA Regulation concerning DubliNet were set out in the Eurodac recast proposal and are subject to the adoption of that proposal. The operation of DubliNet was already entrusted to the Agency by way of a service-level agreement between the Directorate General for Home Affairs and eu-LISA on 31.7.2014.

<sup>63</sup> Regulation (EU) 2017/2226 of the European Parliament and of the Council of 30 November 2017 establishing an Entry/Exit System (EES) to register entry and exit data and refusal of entry data of third country nationals crossing the external borders of the Member States of the European Union and determining the conditions for access to the EES for law enforcement purposes.

<sup>64</sup> Proposal for a Regulation of the European Parliament and of the Council establishing a centralised system for the identification of Member States holding conviction information on third country nationals and stateless persons (TCN) to supplement and support the European Criminal Records Information System (ECRIS-TCN system) and amending Regulation (EU) No 1077/2011. COM(2017) 344 final.

<sup>65</sup> Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS).

AMMU	Database Engineer/SOA-Middleware Specialist	AD5	1	1	1	1	1	1
AMMU	Business Analyst/Solution Architect	AD7	1	1	1	1	1	1
OIU	System Administrator	AD5	1	1	1	1	1	1
SEC	Information Security Officer	AD5	1	1	1	1	1	1
FPU	Finance Officer	AD7	1	1	1	1	1	1
FPU	Procurement Officer	AD5	1	1	1	1	1	1
FPU	Finance/Budget Officer/Assistant	AST4	1	1	1	1	1	1
	<b>Total TA: 1 AD8 + 4 AD7 + 8 AD5 + 1 AST4</b>		<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>

It should be noted that the legal and financial proposal for the EES forecasts a further increase of the staff number and budget from 2020, which has not been indicated in the table above. According to the proposal, the number of posts for 2020 and the subsequent years will be reassessed in the course of the preparation of the draft EU budget for 2020,<sup>66</sup> taking into consideration the specific needs for the operation of the system 24 hours a day and 7 days a week. A global figure for this purpose is included in the overview table at the end of this chapter for the budgetary planning (31.5 posts in 2020). The job profiles will be identified and described in the programming document for 2020.

Table — Forecast for additional posts for ETIAS — temporary agents

Unit	Profile	Grade	2018	2019	2020	2021	Cumulative 2019-2021
OD	Programme/project management — Head of Unit	AD10 <sup>67</sup>	2	2	2	2	2
AMMU	Programme/project management	AD7	2	2	2	2	2
AMMU	Quality assurance	AD6	1	1	1	1	1
FPU	Contract management	AD5	2	2	2	2	2
	<b>Total TA: 2 AD10 + 2 AD7 + 1 AD6 + 2 AD5</b>		<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>

In addition, for ETIAS some additional posts for contract agents are planned: 10 for technical experts from 2018, 2.5 posts for testing from 2019 and 2.5 more for testing from 2020. From 2020, five additional posts will be allocated to helpdesk support (24/7) and five to monitoring the central system (24/7).

Table — Forecast for additional posts for ETIAS — contract agents

Unit	Profile	Function group	2018	2019	2020	2021	Cumulative 2019-2021
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<sup>66</sup> 'Technical Study on Smart Borders — Cost Analysis. Final report by PCW, October 2014', Table 8, p. 24-25, indicates 31.5 FTEs necessary for the operation phase of the EES, namely for system management (0.5 FTE), contractor support (1 FTE), first-line helpdesk support (10 FTEs), second-line helpdesk support (10 FTEs) and operators monitoring the central system (10 FTEs). The amount allocated in the Commission proposal would cover 31.5 posts in total. Therefore, the planning for the development phase of the project should be further discussed.

<sup>67</sup> Two new AD10 posts are expected in the Operations Department to ensure the level of professional experience required to perform the role of the Head of Unit, potentially allowing for internal mobility. Should the establishment plan be increased in general for some additional middle management posts, this plan could be revised. The organisational structure of eu-LISA will have to be revised following the implementation of the additional project and the corresponding increase in staff.

AMMU	Technical experts	FG IV	10	10	10	10	10
AMMU	Testing	FG IV	0	2.5	5	5	5
OIU	Helpdesk support	FG III	0	0	5	10	10
OIU	Operators monitoring central system	FG III			5	5	5
OIU	Operators monitoring central system	FG IV	0	0	0	5	5
	<b>Total CA: 20 FG IV + 15 FG III</b>		<b>10</b>	<b>12.5</b>	<b>25</b>	<b>35</b>	<b>35</b>

Some new tasks for the Agency will be related to the adoption of the Proposal for a Regulation of the European Parliament and of the Council establishing a centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (TCN) to supplement and support the European Criminal Records Information System (**ECRIS or ECRIS-TCN**)<sup>68</sup> that will be reflected also in the amended establishing regulation of eu-LISA.

ECRIS is an electronic system for exchanging information on previous convictions handed down against a specific person by criminal courts in the EU for the purposes of criminal proceedings against a person and, if so permitted by national law, for other purposes. The tasks performed by eu-LISA during the implementation phase are planned for project management, development follow-up, and quality assurance and testing of the system.<sup>69</sup>

Table — Forecast for additional posts for ECRIS-TNC — contract agents

Unit	Profile	Function group	2018	2019	2020	2021	Cumulative 2019-2021
TBD	Project Manager	FG IV	1	1	1	1	1
TBD	System Engineer	FG IV	1	1	1	1	1
TBD	Application Expert	FG IV	2	2	2	2	2
TBD	Software Quality Engineer	FG IV	1	1	1	1	1
	<b>Total CA: 5 FG IV</b>		<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>

In the end of 2017, the European Commission published a Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (police and judicial cooperation, asylum and migration) and a Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (borders and visa) and amending Council Decision 2004/512/EC, Regulation (EC) No 767/2008, Council Decision 2008/633/JHA, Regulation (EU) 2016/399 and Regulation (EU) 2017/2226 to address the necessity of interoperability of the systems in order to enhance information exchange and information management including interoperability solutions in the justice and home affairs area.

<sup>68</sup> Proposal for a Regulation of the European Parliament and of the Council establishing a centralised mechanism for the identification of Member States holding conviction information on third country nationals and stateless persons (TCN) to supplement and support the European Criminal Records Information System (ECRIS), and amending Regulation (EU) 1077/2011 (ECRIS-TCN mechanism). COM(2016) 7 final, 2016/0002 (COD).

<sup>69</sup> The initial request of eu-LISA was for the six FTEs as temporary agents. The table presents the staffing level in line with the legal LFS of the Commission.

If the proposal is adopted, the following additional posts for temporary and contract agents will be necessary at eu-LISA during the period 2019-2021 according to the Commission proposal.

Table — Interoperability between EU information systems posts 2019-2021 — temporary agents

Unit	Profile	Function group <sup>70</sup>	2019	2020	2021	Cumulative 2019-2021
	PM — Programme Manager (Head of Unit)	AD9	1	1	1	1
	PM — Project Manager	AD6	0	0	1	1
	Project Officer	AD6	1	1	1	1
	PM — ESP	AD6	0.5	1	1	1
	PM — Shared BMS <sup>71</sup>	AD6	0.5	0.5	0.5	0.5
	PM — CIR	AD6		0.5	1	1
FPU	Financial management	AD5			1	1
FPU	Budgetary planning and control	AD5	1	1	1	1
FPU	Procurement/contract management	AD5	2	2	2	2
	Technical Experts — Shared BMS	AD5	2	3	5	5
	Technical Experts — CIR	AD5	2	5	5	5
	Technical Experts — Security	AD5	1	2	2	2
	Technical Experts — MID	AD5		2	2	2
	Technical Experts — Architects	AD5	1	2	3	3
	Testing — ESP	AD5	0	1	1	1
	Testing — Shared BMS	AD5	2	2	3	3
GCU	Training	AD5		1	1	1
	<b>Total</b>		<b>14</b>	<b>25</b>	<b>31.5</b>	<b>31.5</b>

Table — Interoperability between EU information systems posts 2019-2021 — contract agents

Unit	Profile	Function group <sup>72</sup>	2019	2020	2021	Cumulative 2019-2021
	PM — CRRS PM	FG IV	1	0.5		0.5
	PM — MID	FG IV		0.5	0.5	0.5
	Programme/Project Officer	FG IV	2	2	2	2
	PM — Quality Assurance	FG IV	1	2	3	3
	Technical Experts — CRRS	FG III	3	3	3	3
	Technical Experts — ESP	FG III	4	4	4	4
	Testing — CRRS	FG III	1	1	1	1
	Testing — CIR	FG III	0.5	1	2	2
	Testing — MID	FG III		1	1	1

<sup>70</sup> Proposal of the HRU.

<sup>71</sup> This post requires further clarification as regards contract, because it is impossible to offer half-time contract for temporary agent as it is indicated in the proposal for 2020 and 2021.

<sup>72</sup> Proposal of the HRU.

	System monitoring — Common (24/7)	FG III		5	10	10
	<b>Total</b>		<b>12.5</b>	<b>20</b>	<b>26.5</b>	<b>27</b>

These numbers will continue to increase in the following years, and this will be reflected in the programming documents. It has to be pointed out that some posts that have been allocated 0.5 full-time equivalents (FTEs) for more than 1 year will require careful consideration to plan for the right competencies and to mitigate potential risks concerning the employment contracts. Figures affecting the establishment plan are added in Table 2 in Annex III.

Success in ensuring the human resources for this project would depend on the decision to strengthen the Human Resources and Training Unit of the Agency at least half a year in advance with the recruitment and personnel administration profiles.

#### b) Growth of existing tasks

If the initiatives described in (a) *New tasks* are adopted by the co-legislators, they would require changes to the eu-LISA Regulation, which should enter into force when those proposals become applicable.

The proposals not only concern the new tasks but also entail the growth of the existing tasks as planned in the PD 2018-2020 and extension of the mandate of eu-LISA as well as increased responsibilities of the Management Board and the Executive Director.

This will have a direct impact on the work of the Agency, and it is very clear that additional human resources will be necessary to pursue these tasks.

All staff-related proposals with regard to the changes to the regulation have been presented in tables ('Overview of additional posts for eu-LISA — temporary agents', 'Overview of additional posts for eu-LISA — contract agents', 'Overview of additional posts for eu-LISA — seconded national experts') and a more detailed analysis of the new roles required follows. The tables below present the Agency's human resources needs concerning the growth of the existing tasks.

An increase of two posts on the baseline set out in the establishment plan is expected from 2017 for the additional staff required for the Eurodac recast, and the table below presents the grading and responsibilities of these posts.

*Table — Forecast for additional posts for Eurodac recast*

Unit	Profile	Grade	2018	2019	2020	2021	Cumulative 2019-2021
AMMU	IT Specialist	AD5	2	2	2	2	2
	<b>Total TA: 2 AD5</b>		2	2	2	2	2

For the Dublin Regulation recast, three additional posts are expected to be required.<sup>73</sup>

In 2016, the European Commission prepared two proposals for regulations of the European Parliament and of the Council: on the use of the Schengen Information System for the return of illegally staying third-country

<sup>73</sup> According to the LFS, these posts will be paid for from the operations budget.

nationals<sup>74</sup> (SIS II returns), and on the establishment, operation and use of the Schengen Information System (SIS) in the field of border checks, amending Regulation (EU) No 515/2014 and repealing Regulation (EC) No 1987/2006<sup>75</sup> (SIS II Borders/LE), which would require eu-LISA to upgrade the system in place to respond to the new tasks. To take account of these developments, four new contract agent posts are likely to be required.

Table 5 — Forecast for additional posts for SIS II returns and SIS II Borders/LE

Unit	Profile	Function group	2018	2019	2020	2021	Cumulative 2019-2021
AMMU	IT Specialist/SIS II Borders/LE	FG IV	3	3	3	3	3
AMMU	IT Specialist/SIS II returns	FG IV	1	1	1	1	1
	<b>Total: 4 CA FG IV</b>		<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>

As regards the project to insource external services, the Management Board of eu-LISA gave its approval to start the project in 2017 to cover the most urgent needs. However, respecting the administrative procedure for the adoption of the Agency budget, it may happen that the Agency will be able to execute this project in 2019 only. Nevertheless, some preparatory work, such as the selection process, already began in 2017 to create the reserve lists of suitable candidates.

Table — Forecast for additional contract agent posts to be created following the Agency's revised establishing regulation

Unit	Profile	Function group	2018	2019	2020	2021	Cumulative 2019-2021
AMMU	Senior Project Manager	FG IV	1	1	1	1	1
AMMU	Senior Application Architect	FG IV	1	1	1	1	1
AMMU	Test Analyst	FG IV	1	1	1	1	1
OIU	IT System Administrator	FG III	2	2	2	2	2
OIU	Senior Project Manager	FG IV	1	1	1	1	1
GCU	MB/AG Secretariat Assistant	FG III	2	2	2	2	2
GCU	Internal Communication Assistant	FG III	1	1	1	1	1
GCU	Policy Officer	FG IV	1	1	1	1	1
GCU	Planning Officer	FG IV	1	1	1	1	1
FPU	Financial Junior Assistant	FG II	1	1	1	1	1
FPU	Procurement Assistant	FG III	1	1	1	1	1
HRU	Recruitment and Personal Files Manager	FG III	1	1	1	1	1
HRU	Training Assistant	FG III	1	1	1	1	1
HRU	HR Officer	FG IV	1	1	1	1	1
CSS	Business Analyst	FG IV	1	1	1	1	1
CSS	System Engineer	FG IV	1	1	1	1	1
CSS	Senior Network Engineer	FG IV	1	1	1	1	1

<sup>74</sup> COM(2016) 881 final.

<sup>75</sup> COM(2016) 882 final.

SEC	Junior Security Policy Expert	FG III	1	1	1	1	1
SEC	Assistant to Security	FG II	1	1	1	1	1
SEC	Physical Security Expert	FG IV	1	1	1	1	1
ED	EPMO Junior Officer	FG III	2	2	2	2	2
ED	EPMO Officer	FG IV	1	1	1	1	1
TBD	Assistant Legal Officer	FG III	1	1	1	1	1
IA	Assistant to Internal Audit	FG III	1	1	1	1	1
<b>Total</b>	<b>12 FG IV + 13 FG III + 2 FG II</b>		<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>

The table below presents the additional staff necessary when the proposal of the amended establishing regulation of eu-LISA is adopted.<sup>76</sup>

Table — Forecast for additional posts for the execution of tasks arising from changes to the establishing regulation

Unit	Profile	Grade	2018	2019	2020	2021	Cumulative 2019- 2021
TBD <sup>77</sup>	Head of Department	AD12	0	1	1	1	1
TBD	Head of Unit/Strasbourg	AD9	1	1	1	1	1
TBD	Head of Unit/Tallinn	AD9	1	1	1	1	1
GCU	Research Officer	A7	1	1	2	2	2
GCU	Research Assistant	AST3	1	1	1	1	1
FPU	Procurement/Contract Officer	AD5	1	1	1	1	1
TBD	Project Manager	AD7	2	2	2	2	2
TBD	General Analyst/Business Expert for technical impact assessment and ex-ante technical evaluations	AD5	2	2	2	2	2
TBD	System Architect	AD7	1	2	2	2	2
TBD	Security, Biometric Network Expert	AD5	4	4	5	5	5
TBD	IT Expert for costs assessment	AD7	1	1	1	1	1
TBD	Test Expert for conducting pilots, proofs of concept, prototyping and testing activities	AD7	2	2	2	2	2
TBD	Data Analyst	AD7	1	1	1	1	1
TBD	Network Expert for the communication infrastructure	AD7	1	1	1	1	1
TBD	Deputy Executive Director	AD13	0	1	1	1	1

<sup>76</sup> Regulation (EU) No 2018/1726 of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), and amending Regulation (EC) No 1987/2006 and Council Decision 2007/533/JHA and repealing Regulation (EU) No 1077/2011 entered into force on 11 December 2018.

<sup>77</sup> TBD, to be decided.

<b>Total</b>	<b>Total: 1 AD<sub>13</sub> + AD<sub>12</sub> + 2 AD<sub>9</sub> + 11 AD<sub>7</sub> + 8 AD<sub>5</sub> + 1 AST<sub>3</sub></b>		<b>19</b>	<b>22</b>	<b>24</b>	<b>24</b>	<b>24</b>
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The overall overview of the necessary staff per project or programming document is presented in the table below.

Table — A global overview of additional posts for eu-LISA in the period 2018-2021

Elements	2018			2019			2020			2021		
	TA	CA	Total staff	TA	CA	Total staff	TA	CA	Total staff	TA	CA	Total staff
Baseline HR European Commission (2013) 519 final (establishment plan with cuts)	113		113	113		113	113		113	113		113
CA posts authorised in the 2018 budget <sup>78</sup>		27	27		30	30		30	30		30	30
LFS EES	14		14	14		14	14 <sup>79</sup>		14	14		14
LFS Eurodac	2		2	2		2	2		2	2		2
LFS ETIAS	7	10	17	7	12.5	19.5	7	25	32	7	35	42
LFS SIS II Borders/LE		3	3		3	3		3	3		3	3
LFS SIS II returns		1	1		1	1		1	1		1	1
Additional CA posts due to insourcing intra-muros in revised eu-LISA Regulation		0	0		27	27		27	27		27	27
LFS ECRIS		0	0		5	5		5	5		5	5
LFS revised eu-LISA Regulation	0		0	22		22	24		24	24		24

<sup>78</sup> According to the Commission's proposal for the new eu-LISA Regulation, the baseline number of contract agents is to be 30. Figures show the budget coverage in 2018 and 2019 and request to align this from 2020.

<sup>79</sup> Fourteen posts have been added for the development of the system pursuant to eu-LISA's establishment plan. The number of posts for 2020 and subsequent years will be reassessed in the course of the preparation of the draft EU budget for 2020, taking into consideration the specific needs relating to the operation of the system 24 hours a day and 7 days a week. The estimated total number is 31.5 posts in 2020.

LFS on interoperability				14	12.5	26.5	25	20	45	31.5	26.5	58
<b>Total</b>	<b>136</b>	<b>41</b>	<b>177</b>	<b>172</b>	<b>91</b>	<b>263</b>	<b>185</b>	<b>111</b>	<b>296</b>	<b>191.5</b>	<b>127.5</b>	<b>319</b>

### c) Efficiency gains

The policy objectives are to be achieved taking into account the constraints affecting eu-LISA's budget and available human resources, including the expected reductions in staff for the tasks performed currently and the additional tasks to be taken over by the Agency in the future. Although it is inevitable that every staff member will continue to take a share of the additional workload, the other measures addressing the issue of a gap between the available human resources and the objectives to be reached by the Agency have to be identified and implemented. To do this, in the last 3 years eu-LISA used external service providers (ESPs) to cover the identified gap in the existing IT and administrative profiles. Analysis of the efficiency of this solution was made at the beginning of 2017 and reported to the Management Board,<sup>80</sup> resulting in the approval for insourcing 45 + 2 posts as contract agents following the staff and budget planning process.<sup>81</sup>

Therefore, some efficiency will be gained when the insourcing of the intra-muros profiles will be concluded as this should result in the improvement of the effectiveness of the business processes in question, in particular the processes that highly depend on the knowledge and experience of the EU regulations and procedures. Replacing the relevant outsourced profiles with the contract staff and using the revenue collected from the Associated Countries, in accordance with Article 46(3)(b) of its new establishing regulation, should enable the Agency to make some savings in its budget.<sup>82</sup> It would also enable more effective operation, in terms of applying the same staff and security policies and reducing or solving organisational issues and risks, by granting relevant access rights, exercising internal control, providing or assuring know-how, etc.

Nevertheless, the Agency will continue to use a framework contract for external support services as it has proven to be effective in dealing with relevant tasks on a short-term basis.

Other efficiency gains are expected following the development of eu-LISA's organisational structure that should enable cross-functional communication, strengthen planning and implementation of the projects in the Operations Department (OD) and improve the overall administration of the Agency.

Some further efficiency gains should take place as a result of adopting a long-term perspective, including starting to work on the automation and, where possible, simplification of internal processes, especially in the area of administrative tasks such as recording and monitoring the working time of the Agency's staff or document management. However, experience shows that the customisation or the development of IT solutions requires an increased effort to prepare the technical specifications and to test the proposed solutions.

<sup>80</sup> Note to the Management Board on the establishment of additional contract agent posts in the Agency of 7 March 2017 (document reference 2017-052) and Decision No 2017-044 of the Management Board of eu-LISA of 22.3.2017 (agenda point B.11).

<sup>81</sup> In this PD, from this list, 25 + 2 profiles have been agreed with the European Commission for the insourcing in 2018.

<sup>82</sup> The cost of using an external service provider is considered more than 30% higher than the cost of using contract staff in function group II or III.

Therefore, for a development phase, some extra support is required in terms of human resources.

**d) Negative priorities/decrease of existing tasks**

There are no negative priorities envisaged by the Agency in the foreseeable future, because it is still at an early stage in its organisational development. However, at the time of drafting this document, it cannot be excluded that absorption of the additional unplanned tasks allocated to the Agency with a high priority may potentially result in a need to review the activities planned in the PD 2018-2020 and PD 2019-2021, especially in the event of a lack of or delay in the provision of all the necessary resources, whether they be financial or human.

**e) Redeployment of resources in view of budgetary constraints**

At the time of drafting this document, many initiatives are being undertaken to enhance and further advance the operation of the Agency. Should the budgetary constraints affect the eu-LISA's budget, a prioritisation of tasks would be considered. For example, staff involved in the development phase of the EES may be redeployed either to new system development or to the operational phase of the EES, depending on the tasks and the skills needed to perform them.

***Conclusion on changes to resources compared with the Commission Communication 2014-2020***

As stated in section 3.2.2 above, the Agency has taken into account for the planning of its human resources the position of the European Commission outlined in the Communication to the European Parliament and the Council, 'Programming of Human and Financial Resources for Decentralised Agencies 2014-2020',<sup>83</sup> and has included in its establishment plan for the coming years the numbers of staff in line with Commission guidance. The cuts include 5% of the staff (amounting to six posts) and one post for the deployment pool of the EU agencies. In this context, eu-LISA's establishment plan will have decreased between 2016 and 2018 from 120 posts in 2015 to 113 posts in 2018. It is envisaged that natural turnover or the end of employment contracts will account for this reduction, depending on the nature of the posts becoming vacant. In planning, the lowest grades in both function groups have been taken into account for the calculation of the staffing levels. One of eu-LISA's policies concerning staff cuts is to use natural (voluntary) staff turnover to block the vacant posts. Otherwise, non-renewal of contracts would be required, which would not be beneficial to the Agency or its staff.

These changes to the establishment plan, the human resources of eu-LISA and their evolution over the years, including plans for 2018-2020, are reflected in Tables 1 and 2 in Annex III.

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<sup>83</sup> COM (2013) 519 final.

## Section III Work Programme 2019

### 1. Executive summary

In 2019 and the years to come the EU will continue facing a dual challenge:

- To stay open, since it is part of a globalised and interconnected world where international mobility is expected to grow further. More and more people will look at Europe as a place to come to visit, study in, work or seek protection in. Additionally, the EU will be faced with the consequences of a continuous instability in its immediate neighbourhood, rapid demographic changes and increasingly diverse societies.
- To stay secure and guarantee the security of its citizens. Technology has evolved at an extremely high pace in recent years, creating new opportunities for economic growth and fundamentally transforming the daily life of people. However, these changes also increased the number of new security challenges dramatically. Cybercrime cases increase rapidly; terrorism remains an ultimate threat to security, taking advantage of new social platforms; cross-border organised crime is taking on new shapes.

To address these challenges, the EU will have to consolidate successful policies and their achievements in the JHA domain and complement them with relevant new initiatives.

The ongoing digital transformation of the justice and home affairs domain will continue and even accelerate in the coming years. Therefore, the EU should further explore the capabilities of technology to support and contribute to the delivery of priorities in the JHA domain.

Therefore, the role and importance of eu-LISA for the Member States and the EU as a whole will continue to grow. The Agency will be one of the most important contributors to the successful implementation of relevant JHA policies, aimed at strengthening border management and internal security.

In 2019, eu-LISA will face and will have to address a dual strategic challenge of its own. On the one hand, the Agency will have to stay focused on its core operations (i.e. the operational management and development of the systems entrusted to it and the creation of new systems). On the other, it will have to continue to increase its contribution to the Member States and the EU as a whole, capitalising on its knowledge, experience and capabilities in the area of management of large-scale IT systems and services.

This section elaborates the major operational tasks for 2019 based on the analysis above and agreed internal priorities for 2019.

#### *Operational management and the evolution<sup>84</sup> of the existing systems*

The Agency will continue with the maintenance of the systems under its management, including, from 2018 on, the SIS II AFIS and DubliNet maintenance. First- and second-level support will be provided 24/7 for the operational management of the systems. Efforts will also be focused on the common shared infrastructure implementation (to finalise and implement the services that were not implemented in 2018), maintenance and reorganisation of the data centres and asset management will be integrated with configuration management. To ensure an uninterrupted service, the Agency will continue to operate, manage and maintain the backup data

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The changes to the systems depend heavily on the adoption of the recast legal bases for SIS, VIS and Eurodac.

centre and backup operational site in St Johann im Pongau.

Hence, 2019 activities detailed in Chapter 2 are as follows:

- Operational business-as-usual activities
  - 24/7 first-level support for operational management of the systems — eu-LISA Service Desk (Section 2.2.1.1);
  - 24/7 second-level application support for operational management of the core business systems (Section 2.2.1.2);
  - Eurodac maintenance (Section 2.2.1.3);
  - DubliNet maintenance (Section 2.2.1.4);
  - VIS/BMS maintenance (Section 2.2.1.5);
  - SIS II maintenance (Section 2.2.1.6);
  - SIS II AFIS maintenance (Section 2.2.1.7);
  - SIS II support to Member States (including integration of new users to SIS II) (Section 2.2.1.8);
  - Operational management/daily system management operations (Section 2.2.1.9);
  - Operate, manage and maintain the backup data centre and backup operational site in St Johann im Pongau (Section 2.2.1.10).
- Operational project activities
  - CSI second phase implementation maintenance, including reorganisation of the data centres (Section 2.3.1.1);
  - CSI second phase implementation (Section 2.3.1.2);
  - Integration of asset management with configuration management (Section 2.3.1.3);
  - Single integrated monitoring solution — continuation from 2018 (Section 2.3.1.4).

In 2019, the evolution of the systems will focus on reflecting all the new requirements that are expected to be introduced as a result of the adoption of the recast legal bases for the systems by the co-legislators.

Further to the continuation and finalisation of the projects that have started in previous years, such as user software kit (USK) renewal, BMS database increase, the implementation of the VIS/BMS end-to-end testing platform and test environment/testing requirements (TST) upscale (to be finalised in 2020), other important new projects related to VIS should start implementation, including the interoperability between VIS and EES. The project related to 100 MIO visa applications will see qualification and deployment in production for the final products.

On completion of the face recognition study results in the context of the Eurodac recast, the face recognition mechanism will be introduced to Eurodac. Specific efforts will be made regarding testing and support for the Member States. Depending on the adoption of the Eurodac recast, a couple of Eurodac initiatives will be implemented (see the list below). In addition, the Eurodac communication model will be changed to web services.<sup>85</sup>

SIS II will end an upgrade of its search engine and overall capacity. A new SIS II central system simulator will be

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<sup>85</sup> This is independent of the adoption of the Eurodac recast.

fully operational for all Member States from 2019. The SIS II AFIS implementation for the second phase will start in 2019. Once the new SIS legal framework is approved, the Agency will start the implementation of the new business functionalities (targeting also improvements in the control of return decisions).

It is also expected that new legislation will be adopted to allow the interoperability of the systems and European search portal. On its adoption, the Agency will start a project to implement the new legal framework.

Hence, 2019 activities detailed in Chapter 2 are as follows:

- Operational project activities
  - New SIS legal proposal<sup>86</sup> (Section 2.3.1.5);
  - SIS return decision<sup>87</sup> (Section 2.3.1.6);
  - Implementation of VIS/BMS end-to-end testing platform (continuation from 2017 and 2018) (Section 2.3.1.7);
  - USK renewal (continuation from 2018) (Section 2.3.1.8);
  - BMS Database increase (Phase 1, continuation from 2017 and 2018) (Section 2.3.1.9);
  - TST upscale to 100% Pre-Production Environment (PPE) (Phase 1) (Section 2.3.1.10);
  - New search engine and Oracle upgrade for SIS II, improving availability and considering transcription aspects (Section 2.3.1.11);
  - VIS capacity increase to 100 MIO visa applications (continuation from 2017 and 2018) (Section 2.3.1.12);
  - VIS new users integration: Europol (Section 2.3.1.13);
  - Eurodac recast Phase 1 — updates as per recast proposal: search-storage of CAT<sub>1,2,3</sub>, new biographical/biometric data, capacity upgrade, face recognition study<sup>88</sup> (Section 2.3.1.14);
  - Eurodac recast Phase 2.1 — inclusion of passport copies and other (ID) documents to Eurodac (Section 2.3.1.16);
  - Eurodac recast Phase 2.2 — managing resettlements in Eurodac (Section 2.3.1.17);
  - Eurodac recast Phase 2.3 — alphanumeric searches to Eurodac (Section 2.3.1.18);
  - Eurodac recast Phase 3 — implementation of face recognition in Eurodac (based on study outcomes) (Section 2.3.1.19);
  - Change Eurodac communication model to web services (Section 2.3.1.20);
  - Implementation of SIS II AFIS Phase 2<sup>89</sup> (Section 2.3.1.21);
  - Implementation of the regulations on establishing a framework for interoperability between EU information systems<sup>90</sup> (Section 2.3.1.22).

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<sup>86</sup> The SIS package was adopted 28 November 2018 (OJ L 312, 7.12.2018, p. 1-106).

<sup>87</sup> Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the use of the Schengen Information System for the return of illegally staying third-country nationals.

<sup>88</sup> Subject to legislative amendments.

<sup>89</sup> Regulation (EU) 2018/1861 of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of border checks, and amending the Convention implementing the Schengen Agreement, and amending and repealing Regulation (EC) No 1987/2006.

<sup>90</sup> Subject to the final adoption of the Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (police and judicial cooperation, asylum and migration) and the Proposal

## *Operational management and evolution of the communication infrastructure*

Primary objective of the Agency, as regards to the core business systems communication infrastructure and related communication systems, will be its operational management. In addition, the Eurodac network bandwidth will be upgraded on assessment of the transaction throughput to be observed following the Eurodac recast. Projects such as the unified network test phase (the study is to be done in 2017, and the test phase in 2017-2018), advanced network statistics (the study is to be done in 2017-2018, and the test phase in 2019) should be concluded in 2019, and TESTA-ng VIS second encryption layer implementation (that started in previous years) will continue in 2019. Moreover, the study phase of the unified wide area network perimeter project should be launched in 2019, covering collection of the requirements, identification of the most appropriate solution and outlining the high-level architecture.

An additional three impact assessments will be carried out in 2019 to assess the necessary resources for the implementation of active/active solutions, the central repository for reporting and statistics and the common shared infrastructure to SIS II, Eurodac and VIS.

Hence, 2019 activities detailed in Chapter 2 are as follows:

- Operational business-as-usual activities
  - Operational management of the communication infrastructure and the related communication systems (Section 2.2.1.11);
  - Regular operational management of the communication infrastructure contracts (budget execution, acquisition, renewal and contract management) (Section 2.2.1.12).
- Operational project activities
  - Handover of the activities related to implementation of the budget, acquisition, renewal and contractual matters of the VIS and SIS II communication infrastructure (Section 2.3.1.30);
  - Unified wide area network perimeter — study and design (Section 2.3.1.26);
  - Eurodac network bandwidth upgrade (Section 2.3.1.27);
  - Conducting a unified network test phase (continuation from 2018) (Section 2.3.1.28);
  - Introduction of advanced network statistics (continuation from 2018) (Section 2.3.1.29);
  - TESTA-ng VIS second encryption layer implementation (Section 2.3.1.31);
  - Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for SIS II (Section 2.3.1.23);
  - Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for VIS (Section 2.3.1.24);

- Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for Eurodac (Section 2.3.1.25).

### *Development and implementation of new systems*

In 2019, the Agency will continue with implementation of the Entry/Exit System and European Travel Information and Authorisation System as well as the new Dublin Automation System. It is also expected that the implementation of ECRIS-TCN and the recast Eurodac Regulation are in progress. The work on the central repository for reporting and statistics will continue too.

Hence, 2019 activities detailed in Chapter 2 are as follows:

- Operational project activities
  - Dublin Automation System (Section 2.3.1.32);
  - EES implementation (Section 2.3.1.33);
  - Implementation of the European Travel Information and Authorisation System (ETIAS) (Section 2.3.1.34);
  - ECRIS-TCN implementation (depending on the adoption of the relevant legal basis) (Section 2.3.1.35);
  - Central repository for reporting and statistics implementation to improve automated reporting and statistics generation Phase 2 — unification of the reporting of all our systems (continuation from 2017) (Section 2.3.1.36).

### *Security and business continuity*

As regards to security, the Agency will continue the implementation of Phase 3 of the common shared security infrastructure including identity and access management for the core business systems. The identity and access management solution will provide automated workflows for managing the provisioning and management of user accounts for eu-LISA administrators of the core business systems. It also will enhance the security auditing and reporting of user activities related to the management of the core business systems. eu-LISA will operate, plan and develop the business continuity/disaster recovery/emergency response parts from security and continuity management and will operate, plan and develop the protective elements of security and continuity management. This service is based around the key principles and requirements deriving from the Commission Decision 2017-416 and ISO27001. The main budgetary elements of this service derive from the licence and maintenance cost of security-related software and solutions (e.g. anti-virus solutions, security-testing software) and the purchase of new or updated security software and hardware. Together with Member States, a security and business continuity exercise for Eurodac will be carried out, in which the security and business continuity plans and control are tested from an end-to-end point of view. This project comprises the planning, coordination, execution and reporting activities necessary to organise a large-scale security and business continuity exercise for the Eurodac system in cooperation with the Member States. The exercise will be designed to test the objectives, which will be established as part of the project process. The physical security of the new sites in Tallinn and in Strasbourg will be improved by implementing additional controls to enforce their resilience.

Hence, 2019 activities detailed in Chapter 2 are as follows:

- Horizontal activities

- Security activities not specifically related to the core business systems and communication infrastructure (Section 2.1.6).
- Operational business-as-usual activities
  - Implementation of the recommendations coming from the security and business continuity exercises (Section 2.2.1.13);
  - Delivering the information security and assurance service (Section 2.2.1.14).
- Operational project activities
  - Implementation of the common shared security infrastructure Phase 3 (Section 2.3.1.37);
  - Security and business continuity exercise for Eurodac (Section 2.3.1.38).

### *Core business support activities (statutory reporting for systems, external technical training, technology research, etc.)*

Statutory reporting as requested by the legal mandate of the Agency will be continued according to the existing requirements as well as best practices.

The Agency will continue to provide high-quality tailored training to Members States on the technical use of the systems under its management.

During 2019, the research and technology monitoring roadmap will be implemented and the eu-LISA library will be updated with new titles.

The 2019 activities detailed in Chapter 2 are as follows:

- Horizontal activities
  - General coordination (Section 2.1.1).

### *Corporate governance (centre of excellence, governance, planning and corporate statutory reporting, quality management, internal audit, etc.)*

To support the establishment of eu-LISA as a centre of excellence, the Agency will further develop and maintain its ITSM framework.

To support the Agency governance framework, the Agency's internal control register will be updated and regular and monitoring exercises will be carried out. The General Coordination Unit (GCU) will coordinate, prepare and facilitate the work of the Management Board and the AGs.

The Agency will provide the necessary resources to fulfil its legal obligations regarding the production of its programming documents and the consolidated annual Activity Report.

The efforts in the area of the internal audit are focused on the implementation of the annual audit plan.

2019 activities detailed in Chapter 2 are as follows:

- Horizontal activities
  - Implementation of the annual internal audit plan (Section 2.1.7);
  - General coordination (Section 2.1.1).
- Operational business-as-usual activities

- eu-LISA ITSM framework maintenance and development (Section 2.2.2.1).

### *Policy, stakeholders relations and communications*

Partnership with other EU agencies and other relevant bodies, in particular justice and home affairs agencies, will be further strengthened.

Attention will be focused on monitoring the relevant developments in JHA areas.

In this strategic action area, the main efforts will be on the execution of the annual External Communication Action Plan and the annual Internal Communication Action Plan.

- Horizontal activities
  - General coordination (Section 2.1.1).

### *Financial management, procurement and accounting*

The main project outside the business-as-usual activities will be the establishment of the corporate information and management system. Execution of the Procurement and Acquisition Plan and timely delivery of services related to budgetary, procurement and financial management will be the further priorities for 2019.

2019 activities detailed in Chapter 2 are as follows:

- Horizontal activities
  - Financial management, procurement and accounting (Section 2.1.2).

### *Facilities and corporate services*

It is expected that in 2019 the Agency will have already moved to its new HQ in Tallinn and to its extended operational site in Strasbourg, which will require that all logistics and supplies services and maintenance activities for the new buildings and the equipment must be in place. In addition, in Strasbourg the second extension of the operational premises to host current and future projects will be initiated.

Regarding corporate IT services, the Agency will maintain and evolve its corporate network architecture, system and storage architecture, corporate applications and website hosting. E-learning environments will also be evolved.

Hence, 2019 activities detailed in Chapter 2 are as follows:

- Horizontal activities
  - Corporate services (Section 2.1.5).

### *Human resources and knowledge management*

During the period 2019-2021, the HRU will focus on three areas of human resources management:

- optimisation and sound management of human resources in terms of organisational structure, processes and practices in compliance with the relevant rules and decisions;
- development of the HR IT tools and their implementation;
- training for eu-LISA staff related to operations (technical training for staff).

The primary aim of optimisation is to ensure that adequate resources planned are available during this period of growth and that the HRU itself is prepared for the challenge of the increasing staff numbers. In 2019, eu-LISA will continue to recruit additional staff allocated to the Agency under the revised establishing regulation and for the next phase of the Entry/Exit System, ETIAS and ECRIS-TCN. At the same time, the structure of the organisation may undergo changes to accommodate the new tasks and new staff while allowing for the consolidation and future growth of the organisation and its members.

The implementation of the IT tools, in particular the tools used by the other EU agencies and the European Commission, should facilitate the work and reporting in the domain of human resources. Basic Sysper modules should be implemented and put in use by the HRU and staff by the end of 2019. Plans for the introduction and implementation of the next modules in the coming years will be made. It should be pointed out that introduction and implementation of the new IT tools until they are fully operated builds on the additional effort from the eu-LISA staff involved in the project.

HRU will continue to provide courses related to operations and systems to eu-LISA staff to be able to better perform and offer better services to the Agency's stakeholders.

Hence, 2019 activities detailed in Chapter 2 are as follows:

- Horizontal activities
  - Human resource management (Section 2.1.3).
- Operational business-as-usual activities
  - Training for eu-LISA staff related to operations (technical training for staff) (Section 2.2.4.1).

### *Data protection*

The DP annual Work Report 2018 will be drafted and the intermediate status on DP compliance will be reported to the MB. Data protection awareness and the frequency of the awareness sessions on the subject (including a special session on the data protection day) will be increased to address the changes coming from the repeal of Regulation 45/2001 and the annual Data Protection Survey will be carried out.

2019 activities detailed in Chapter 2 are as follows:

- Horizontal activities
  - Data protection (Section 2.1.4).

## 2. Activities in 2019

### 2.1. *Horizontal activities*

This section covers all organisational crosscutting activities that are performed on a daily basis and projects to support the execution of the Agency's core operational business. The activities include annual planning and reporting exercises, management of relations with the external stakeholders such as the Member States, Commission or other agencies and bodies, external and internal communication efforts or corporate risk management and implementation of internal control standards (ICSs). They also cover budgetary, procurement and financial management as well as recruitment, staff learning and development, personnel administration and payroll. The internal audit and data protection business-as-usual activities are also part of this section, which also provides information on the day-to-day security activities related to physical and information security.

#### 2.1.1. *General coordination*

##### MAIN ACTIONS OR TASKS

This activity includes:

- planning and reporting;
- providing governance and compliance management capabilities;
- timely administrative support for the Management Board;
- timely administrative support for the advisory groups;
- drafting technical reports and aggregating statistics;
- execution of externally-directed activities delineated in the annual research and technology monitoring roadmap for 2019 and the research and technology monitoring strategy 2019-2021;
- monitoring of research and technological developments and input of learning into internal projects focusing on system evolution, new system implementation, Agency capability enhancement and new service provision;
- implementation of the External Communication and Information Action Plan;
- implementation of eu-LISA Internal Communication Action Plan;
- stakeholder engagement and policy coordination;

- contribution as an observer to Schengen evaluations in the fields of SIS/SIRENE and common visa policy and ensure better use of SIS II and VIS by Member States.
- providing training on the technical use of the systems to the Member States. In addition, eu-LISA will provide training and technical support to other JHA agencies, if needed/requested and if allowed by the applicable legal framework;
- initiate and contribute to the development and implementation of management of corporate information and management system (CIMS).

### VALUE ADDED

- The Agency will fulfil its legal obligations, it will manage its work in a predictable and structured way, and it will perform in accordance with the needs of its stakeholders.
- eu-LISA stakeholders will receive timely and sufficient information on the execution of the Agency's activities and achievement of objectives. The management and the stakeholders of eu-LISA will be able to take strategic and operational decisions based on objectively verifiable data.
- The appliance and monitoring of internal control standards managed by eu-LISA will contribute to facilitating good governance by the Agency.
- The positive image of the Agency will be maintained.
- The awareness among stakeholders on technologies of relevance will be raised, enabling improved decision-making and enhanced capacity and capabilities to work with Agency experts on new and ongoing projects.
- Enhanced view of the Agency as a centre of knowledge and hub for high-quality information exchange.
- The internal communication actions will facilitate the strengthening of corporate culture of the Agency as a modern and well-functioning organisation.
- eu-LISA is a trusted and valuable partner to all of its stakeholders, perceives well the impact of EU policies in the JHA domain on the Agency and is able to defend its views vis-a-vis relevant stakeholders.
- EU Member States use the systems under the management of eu-LISA following the best practices for correct implementation of the Schengen legislation in the fields of SIS/SIRENE and common visa policy.
- Technical knowledge of the Member States/partner JHA agencies on the systems is increased resulting in better performance at national level. The Member States/partner JHA agencies receive the tailored training on technical use of the systems.
- The management of the Agency will be provided with broader and more precise information for taking strategic and operational decisions.

### MAIN CHALLENGES

- Ensuring timely delivery of information in the desired quality and quantity.
- Timely contributions from and the commitment of the participants involved.
- Limited resources (human/budgetary) and time to sufficiently support the general coordination activities.

- Insufficient communication between operations and the research monitoring function to drive topic prioritisation, rendered more likely by the division across units.
- Unavailability of sufficiently broad expertise within the research and technology monitoring function to provide high-quality and relevant input on the exceptionally wide gamut of technological domains in which support would be valuable.
- Limitations may be imposed on the Agency by contractors who host and/or develop the functionalities for the website.

Unit	Objectives of the activity	Outputs from the activity	Outcomes of the activity
GCU	<ol style="list-style-type: none"> <li>To fulfil the planning requirements of eu-LISA’s establishing regulation and the Framework Financial Regulation as regards the planning and reporting documents.</li> <li>To facilitate that good governance is applied by implementing and monitoring a framework of internal control standards in eu-LISA.</li> <li>Effective support for the operations of the Management Board and the advisory groups.</li> <li>To provide information on the technical functioning of the systems and their usage.</li> <li>Monitoring of relevant technologies and communication to the EP, Council, European Commission and European Data Protection Supervisor.</li> <li>To enhance internal knowledge of recent academic/industrial research and technological developments of relevance to internal projects and development work and to thereby ensure that the best available technology, subject to cost-benefit analysis, is used.</li> <li>To provide updated information, increase awareness and rapidly give objective, reliable and easily understandable information to the public and stakeholders.</li> <li>To improve intra-agency information sharing and knowledge sharing and contribute to employee engagement.</li> <li>High-quality stakeholders relations (Member States, EU</li> </ol>	<ol style="list-style-type: none"> <li>All legally required planning and reporting documents are drafted and adopted in due time.</li> <li>The internal control register is updated and implemented for 2019, including defined measures for ensuring good governance.</li> <li>The administrative and logistic support to the Management Board and the advisory groups is maintained at a high level.</li> <li>Technical reports, annual statistics and list of authorities submitted to the EU institutions or published in the OJ as required by the legal basis.</li> <li>Two research reports published online focused on topics relevant to new and ongoing projects and 2019 Agency priorities. Organisation of two industry events and coordination of impactful content at the eu-LISA annual conference 2019.</li> <li>Short focus reports on research and novel technologies for management, input to project meetings and teams based on technology monitoring, investigatory work executed according to good research practices.</li> <li>External communication and information tasks are performed in line with the legal requirements and quality standards set for EU institutions and bodies and according to the principles of the eu-LISA Communication and Information Strategy 2017-2020.</li> <li>All the activities of the annual Internal Communications Action Plan are fully implemented.</li> </ol>	<ol style="list-style-type: none"> <li>eu-LISA provides its stakeholders with sufficient information on the planning and execution of its tasks and its performance.</li> <li>The Agency sufficiently applies elements of good governance in its compliance management practices.</li> <li>The Management Board and the advisory groups are sufficiently supported to perform effectively its duties.</li> <li>Fulfilment of all reporting obligations as outlined in the legal basis.</li> <li>Dissemination of accrued knowledge of relevance boosts necessary stakeholder awareness on technical matters, leading to improved collaborative possibilities. The Agency’s profile as a centre of knowledge is raised and its image boosted.</li> <li>eu-LISA’s large-scale IT systems are maintained and evolved utilising the best available technologies.</li> <li>Better knowledge and improved awareness of the primary stakeholders on the role and tasks of the Agency.</li> <li>The staff at all the sites of the Agency is informed and engaged on the corporate level, allowing informed decisions to be made regarding their professional tasks and having access to internal communication tools for information sharing and feedback.</li> <li>Systematic and well-functioning cooperation with eu-LISA’s stakeholders and thorough policy analysis and coordination internally and appropriate outreach to relevant</li> </ol>

	<p>institutions, EU agencies, industry representatives, academia) and comprehensive internal policy analysis and coordination along with appropriate outreach to stakeholders.</p> <p>10. Ensure sound implementation of the Schengen acquis in the field of SIS/SIRENE and common visa policy by the evaluated Member States and ensure better use of SIS II and VIS.</p> <p>11. The knowledge of the Member States and/or partner JHA agencies on the technical functioning and use of the systems is enhanced and applied.</p> <p>12. Initiate and contribute to the development and the implementation of CIMS</p>	<p>9. Implementation of working arrangements and memoranda of understanding with EU institutions and agencies; management of joint initiatives; stakeholder engagement through events; analysis and information sharing on JHA policies with an impact on the Agency.</p> <p>10. Participation in Schengen evaluation missions in SIS/SIRENE and common visa policy areas as an observer and contribution to evaluation reports of EU Member States.</p> <p>11. To fulfil the core task of the Agency as per establishing regulation and to provide technical training on the functioning and use of the systems to the Member States. To provide support to partner JHA agencies, if so requested and legally acceptable.</p> <p>12. CIMS is put in place and operational</p>	<p>stakeholders.</p> <p>10. EU Member States apply correctly the Schengen legislation in the fields of SIS/SIRENE and common visa policy and ensure better use of SIS II and VIS.</p> <p>11. A responsive and tailored systems training programme in place that meets in full the needs of stakeholders.</p> <p>12. Existence of a system that facilitates well-informed decision-making by structuring and presenting management information based on pre-defined needs, and hereby contributes to the Agency becoming a centre of excellence</p>
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### 2.1.2. *Financial management, procurement and accounting*

#### MAIN ACTIONS OR TASKS

This activity includes:

- execution of the Procurement and Acquisition Plan;
- timely delivery of services related to budgetary, procurement, financial and asset management;
- internal control, procedures and audits related to finances and procurement;
- introduce for the first full financial year an activity-based management model (including costing, budgeting, reporting);
- maintaining the accounts of the Agency.

#### VALUE ADDED

- Maintain and facilitate the operation of the Agency by ensuring acquisitions in accordance with sound financial management.
- Support the smooth execution of the Agency's operational and corporate objectives.
- The Agency meets the statutory requirements mandatory for an EU body.
- Objectively monitor performance by achieving a more accurate budget forecast and transparency in the budget process.
- Coherent and credible reporting and presentation of the Agency's financial situation.

- Compliance with sound financial management.
- Properly implemented payments and timely recovery of amounts established as receivable.
- Legal prerequisite for the discharge procedure.

**MAIN CHALLENGES**

- Planning and scheduling.
- Legal risks (court cases).
- Quality of planning is inadequate.
- Failure in internal controls may result in unjustified expenditure, fraud and denial of discharge by the budgetary authority.
- Expanding business results in growing complexity with increasing numbers of financial transactions to control and to report on.

Unit	Objectives of the activity	Outputs from the activity	Outcomes of the activity
FPU/AO	<ol style="list-style-type: none"> <li>1. To support the Agency’s core and corporate activities by providing procurement and acquisition in due time.</li> <li>2. Sound financial management and capabilities for precise budget planning; monitoring and execution are ensured in support of the Agency’s operations.</li> <li>3. Ensure that the activities in the financial and procurement management area are compliant with applicable standards, documented, revised and updated.</li> <li>4. To ensure more precise budget planning and financial reporting related to the costs incurred for specific business activities, and in particular the development, maintenance and evolution of the systems under management.</li> <li>5. Ensuring proper presentation of the Agency’s financial position, safeguarding the Agency’s assets and timely recovery of due amounts</li> </ol>	<ol style="list-style-type: none"> <li>1. High-quality and timely procurement services in support of the Agency are provided throughout the year.</li> <li>2. High-quality internal budgetary, procurement and financial services are provided, allowing the achievement of operational and corporate objectives.</li> <li>3. Procedures and controls are developed and revised; internal and external audits in the financial and procurement area are performed.</li> <li>4. Better capabilities to align activities with objectives, streamline costs and improve business practices to have greater effectiveness in the budget planning and reporting processes.</li> <li>5. Provisional and final individual and consolidated annual accounts</li> </ol>	<ol style="list-style-type: none"> <li>1. The Agency’s acquisition needs are addressed in compliance with statutory obligations and within the budgetary framework.</li> <li>2. High-quality and timely services of budgetary, procurement and financial services are provided throughout the year. Processes are continuously revised to improve efficiency and effectiveness, wherever possible through dematerialisation.</li> <li>3. The Agency avails itself of a comprehensive set of procedures and checks which are fit for purpose to promote sound financial management and internal control.</li> <li>4. The Agency is capable of precisely measuring its performance in the execution of its main business processes in accordance with an activity-based management model.</li> <li>5. Presenting the annual accounts so that they represent fairly and transparently the financial position of the agency facilitating the discharge procedure</li> </ol>

**2.1.3. Human resource management**

**MAIN ACTIONS OR TASKS**

This activity includes:

- optimisation and sound management of human resources in terms of organisational structure, processes and practices in compliance with the relevant rules and decisions;
- development of the HR IT tools and their implementation;
- training for eu LISA staff related to operations (technical training for staff).

**VALUE ADDED**

- Organisational structure of eu-LISA reflecting development of the Agency and HRU service organisation adjusted to the growing Agency.
- HR strategy implemented in line with its roadmap.
- Implementing Rules to the Staff Regulations adopted and/or implemented.
- Sysper is implemented for the staff career and organigram module and work on the use of the optional modules is performed.
- Plans are made concerning optional modules.
- Other IT tools used by the HRU (SharePoint, Totara, etc.) are developed or implemented.
- eu-LISA’s operational staff will be able to better perform and offer better services to the Agency’s stakeholders.

**MAIN CHALLENGES**

- Ensuring that planning of the organisational structure is in line with the legal proposals for the new tasks while the legal basis has not been adopted yet.
- Ensuring the availability of staff in the HRU with the relevant knowledge and knowledge transfer in the event of HR staff turnover.
- Ensuring timely reporting on the relevant areas of HR and that accurate records are kept. Human error is kept to a minimum in the event of staff turnover.
- Ensuring the availability of resources to pursue this work on top of business as usual.
- Availability of the funds for this type of training, availability of expert knowledge on the market and workloads may affect participation in the training. These risks can be mitigated by good planning and prioritisation.

Unit	Objectives of the activity	Outputs from the activity	Outcomes of the activity
HRU	1. To plan the resources of the Agency and in the HRU to meet the strategic goals and objectives of the Agency and	1. Organisational structure of eu-LISA is reflecting the development of the Agency; HRU service organisation is	1. The Agency’s and HRU’s organisational structure will reflect the organisational development and accommodate future

	<p>to fulfil the requirements of the Staff Regulations and Conditions of Employment of Other Servants of the European Union.</p> <ol style="list-style-type: none"> <li>2. To have in place adequate or customised IT tools, used by other EU agencies and the Commission, for the smooth running of the HR service.</li> <li>3. To ensure eu-LISA provides high-level service and innovation to its internal stakeholders through increased knowledge of its own staff</li> </ol>	<p>adjusted to the growing Agency; HR strategy is implemented in line with its roadmap; Implementing Rules to the Staff Regulations are adopted and/or implemented.</p> <ol style="list-style-type: none"> <li>2. Sysper is implemented for the staff career and organigram module and work on the use of the optional modules is performed; plans are made concerning optional modules; other IT tools used by the HRU (SharePoint, Totara, etc.) are developed or implemented.</li> <li>3. Courses related to operations and systems will be provided to eu-LISA's staff</li> </ol>	<p>growth. eu-LISA will fulfil its obligations towards staff in accordance with the regulatory framework.</p> <ol style="list-style-type: none"> <li>2. eu-LISA human resources management (HRM) will be optimised as concerns efficiency of performance, resources allocation and systematisation of data structure, and auditable records.</li> <li>3. eu-LISA's staff will be able to better perform and will be acquainted with the best practices in the field of technology</li> </ol>
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## 2.1.4. Data protection

### MAIN ACTIONS OR TASKS

This activity includes:

- drafting the annual Work Report 2018 and reporting the intermediate status of DP compliance to MB;
- increasing data protection awareness;
- transposition of the new regulation repealing Regulation 45/2001;
- perform the annual Data Protection Survey.

### VALUE ADDED

- Information on DP level is provided to the relevant stakeholders.
- Staff commitment towards DP is expected at a high level.
- Compliance with the DP legal framework applicable to eu-LISA.
- Improve data protection compliance and identify possible risky practices on data protection issues.

### MAIN CHALLENGES

- Lack of resources to raise the level to be presented and delivery on time the documents.
- Lack of interest of the staff, demotivation or lack of compromise by middle managers and managers. Lack of support from the higher managers. Lack of resources to carry such activities.
- The new regulation introduces certain difficulties and new challenges. A period of adaptation will be required with proper exchange of information among EU DPOs,

seeking guidance on how to correctly implement the new provisions. Incorrect or misperceived concepts can lead to risks of in compliance, leading to financial losses.

- Lack of resources to perform the survey in a timely manner.
- Follow-up actions and the audit can be perceived as an inspection, with all negative connotations arising.

Unit	Objectives of the activity	Outputs from the activity	Outcomes of the activity
DPO	<ol style="list-style-type: none"> <li>1. Public, MB and European Data Protection Supervisor are informed about the level of compliance as regards DP via web publication of the annual Work Report 2018. MB is also kept informed through intermediate status report.</li> <li>2. Continuous update of the staff's knowledge on DP principles applicable.</li> <li>3. Adaptation to the new regulation applicable to Community institutions and bodies on processing personal data.</li> <li>4. Audit to the data protection compliance on a specific unit of eu-LISA</li> </ol>	<ol style="list-style-type: none"> <li>1. Annual Work Report 2018 submitted for approval to the eu-LISA's MB. Intermediate status report on DP provided.</li> <li>2. Increased/maintained understanding of the staff on data protection concepts and rights.</li> <li>3. A new decision from the eu-LISA Management Board on implementing rules relating to processing of personal data at eu-LISA.</li> <li>4. Report with the outcomes on/findings and recommendations to be presented to the Executive Director of eu-LISA</li> </ol>	<ol style="list-style-type: none"> <li>1. MB is informed on the level of compliance as regards data protection.</li> <li>2. Staff complies with data protection requirements.</li> <li>3. Ensure compliance of the internal rules with the applicable legal framework.</li> <li>4. Recommendations on data protection compliance to be implemented to increase data protection compliance of the Agency</li> </ol>

### 2.1.5. Corporate services<sup>91</sup>

#### MAIN ACTIONS OR TASKS

This activity includes:

- maintenance and evolution of the corporate network architecture;
- maintenance activities of all equipment and assets in the operational site;

<sup>91</sup> Regarding ICT governance aspects, eu-LISA is required to use the IT governance standards and, whenever appropriate, the reusable building blocks made available by the Commission under the Telecommunication Guidelines of the Connecting Europe Facility. In that context, synergies in IT governance and a regular dialogue between eu-LISA and the Commission will be beneficial; when developing its enterprise architecture model, eu-LISA will take into account the revised European Interoperability Framework — Implementation Strategy COM (2017)134 from 23/03/2017 and the work done under the ISA programme by the Commission and the Member States' representatives on EIRA (European Interoperability Reference Architecture) on delivering interoperable digital public services across borders and sectors.

- extension of the operational premises to host current and future projects;
- maintenance and evolution of the corporate system and storage architecture;
- corporate applications enhancement;
- long-term archive preservation strategy of the Agency;
- evolution of eu-LISA e-learning environments;
- website hosting and evolution;
- further development of enterprise architecture;
- facility operations to enable full and effective use of the new HQ building in Tallinn;
- implementation of logistics and supplies services in the new HQ;
- mission portfolio and creation of an internal mission guide;
- providing legal advice to eu-LISA.

#### VALUE ADDED

- Better network platform integration, enhanced business continuity and disaster recovery, better security, better network services.
- Adequate facilities to support operations.
- Sufficient and fit-for-purpose working conditions in accordance with OIB<sup>92</sup> standards.
- Improvements in communications, directory services and identity management.
- Increased safety and resiliency in backup and restore processes.
- Conformance to legal obligations as well as deposit, preservation, access and public consultation for documents/archives.
- Improvements in e-learning platforms or adoption of new necessary platforms and tools.
- In-house solution establishment in view of the inability to preserve or enhance the current capacity.
- Maintaining and improving website hosting and services.
- Guidelines on the business, information, process and technology changes necessary to execute IT strategy.
- Smooth transition of the IT and non-IT business services in relation to missions.

- The risks of criticism and court cases will be mitigated.

**MAIN CHALLENGES**

- Security vs usability — the more secure the layout, the more the burden is on the network flows.
- Lack of resources and limited staff contingencies.
- Extensive timelines required for sourcing and procuring services that ensure timely implementation.
- To perform effective business continuity without staff presence on both sites for standby support and physical intervention for prompt incident handling.
- Preserving in-house knowledge of the initiatives in the application area with only one staff member in CSS involved, namely the Head of Sector.
- Lack of clear requirements on behalf of business side.
- Lack of resources to maintain the knowledge base.
- To preserve the in-house knowledge with limited resources.
- Dependency on external process owner and contractors.
- Limited resources for providing legal advice according to the needs and expected deadlines.

Unit	Objectives of the activity	Outputs from the activity	Outcomes of the activity
CSD	<ol style="list-style-type: none"> <li>To enhance network architecture of the Agency for corporate use for provision of flexibility, better availability and reliability as well as platforms integration.</li> <li>Preparedness and continuity of all facilities.</li> <li>The objective of the project is to extend the additional Strasbourg site (today's, as completed in 2017) to provide adequate working and operational conditions.</li> <li>To enhance system and storage architecture of the Agency for corporate use to provision for flexibility, better availability and reliability as well as platforms integration.</li> <li>To enhance the capabilities of the Agency's corporate applications and improve collaboration capabilities and workflows.</li> <li>To establish the implementing rules and a solution to the long-term archive preservation obligation on an Agency level.</li> </ol>	<ol style="list-style-type: none"> <li>Implementation of corporate network architecture improvements.</li> <li>The facilities are properly maintained.</li> <li>An updated floor plan is developed and is utilised by the Agency for the Strasbourg facilities concerned.</li> <li>Corporate system and storage architecture is improved.</li> <li>Intranet/extranet design enhancements and workflow provisions, document management system improvements and HR tools improvements.</li> <li>The long-term archive preservation strategy of the Agency is drafted and implemented.</li> <li>E-learning platform is improved.</li> <li>Maintenance, hosting and evolution of the Agency's website.</li> <li>Evolution of the Agency's enterprise architecture.</li> <li>Effective corporate services to new HQ as regards the</li> </ol>	<ol style="list-style-type: none"> <li>Sufficient support for corporate IT management. Improved working conditions for staff. Enhanced communication abilities.</li> <li>The facilities provide all necessary conditions.</li> <li>Adequate working and operational conditions as well as implementation of technical, logistical and operational best practices.</li> <li>Provide services in the field of corporate IT management. Enhanced communication abilities.</li> <li>Enhanced capabilities of the Agency's SharePoint, DMS and HR platforms.</li> <li>Provide services in the field of effective document and archive management. Improved working conditions for staff.</li> <li>Improved e-learning and information conditions for staff and Member States. Enhanced communication abilities.</li> </ol>

	<ol style="list-style-type: none"> <li>7. To enhance e-learning capabilities of internal (vis-a-vis staff) and external (vis-a-vis Member States) e-learning capabilities and platforms of the Agency to provision for better user experience, better availability and reliability.</li> <li>8. To maintain and enhance the website hosting and architecture to provision for flexibility, better availability and reliability.</li> <li>9. To evolve further the enterprise architecture for the Agency.</li> <li>10. To provide services in the field of facility and building management in Tallinn.</li> <li>11. To provide services in the field of logistics and supplies management in Tallinn.</li> <li>12. To enhance the effectiveness of the mission portfolio including the establishment of a missions guide.</li> <li>13. Support the compliance of eu-LISA with the applicable regulations</li> </ol>	<p>facilities and the building.</p> <ol style="list-style-type: none"> <li>11. New Tallinn building preserves high-quality logistics and supplies services.</li> <li>12. Enhancement of effectiveness of the mission portfolio.</li> <li>13. Legal advice and opinion to internal and external stakeholders and representation of eu-LISA in EU or national courts are provided if needed</li> </ol>	<ol style="list-style-type: none"> <li>8. Provide services in the field of web hosting and content reposition. Improved working conditions for staff. Enhanced communication abilities.</li> <li>9. To further evolve the holistic view of IT and business interrelationship.</li> <li>10. Improved working conditions for staff and ability to effectively use the new HQ.</li> <li>11. Improved working conditions for staff and ability to effectively use the new HQ.</li> <li>12. Improved effectiveness of the mission's portfolio.</li> <li>13. Compliance by eu-LISA with the applicable regulations</li> </ol>
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## 2.1.6. *Security activities not specifically related to the core business systems and communication infrastructure*

### MAIN ACTIONS OR TASKS

This activity includes:

- physical security improvement of the new eu-LISA HQ in Tallinn and in the Agency's site in Strasbourg;
- operate, plan and develop the business continuity/disaster recovery/emergency response parts from security and continuity management;
- operate, plan and develop the protective elements of the security and continuity management.

### VALUE ADDED

- An adequate level of physical security assurance for eu-LISA HQ in Tallinn and in the site in Strasbourg.
- An adequate level of business continuity is implemented at the Agency level to acquire the needed resilience for performing its main tasks and responsibilities.
- An adequate level of protective security is implemented at the Agency level to allow the normal activities and process performed by eu-LISA.

**MAIN CHALLENGES**

- There may be a bigger gap than estimated between the security measures initially expected to be implemented through the Estonian government’s construction project and the construction project in Strasbourg and those actually to be implemented.
- The security risk level in 2019 will grow higher and the budget and timeline for the project will be exceeded.
- Delays in the implementation of the post-handover project planned in 2018, due to significant delays to the Estonian government’s construction project, which would impact the implementation of the current project; delays in the implementation of the project planned in 2018, due to significant delays to the construction project in Strasbourg, which would impact the implementation of the current project.
- Inability to implement all the security controls currently proposed by eu-LISA due to the technical aspects concerning the design or way the premises would be built.
- Management’s commitment for implementing Business Continuity Management System (BCMS) and the protective security controls according to the legislation and eu-LISA’s rules.
- Commitment of external stakeholders in supporting the implementation of BCMS as needed as well as the implementation of the specific protective security controls as needed.

Unit	Objectives of the activity	Outputs from the activity	Outcomes of the activity
SEC	1. Compliance with the legislation, with the eu-LISA security rules, with the best practices and the ISO 27000 and ISO 22300 family standards	1. The physical security provided at the eu-LISA HQ in Tallinn and at the site in Strasbourg complies with the risk assessment results and the relevant rules and standards for physical security. 2. Business continuity policies and plans for the systems and the Agency are updated. 3. Specific business continuity/disaster recovery/emergency response controls are implemented as needed. 4. Agency adopts appropriate security measures based on the risk assessment, EU legislation and the best practices	1. The Agency ensures the safety and security of the people and assets in its premises. 2. The Agency improves its resilience in its horizontal activities

*2.1.7. Implementation of the annual internal audit plan*

**MAIN ACTIONS OR TASKS**

This activity includes:

- developing an annual audit plan using an appropriate risk-based methodology;
- coordinating work with the Internal Audit Services and the European Court of Auditors;
- implementing the annual audit plan as approved;
- following up on audit recommendations;
- developing the IAC quality assurance and improvement programme.

**VALUE ADDED**

- Coherent, independent, objective assurance and consulting services provided to the Executive Director and the Management Board.
- Enhanced Agency’s reputation for effective and efficient business processes.
- Improved sound financial management.
- Increased likelihood that eu-LISA objectives will be met.

**MAIN CHALLENGES**

- Ensuring optimal audit coverage of eu-LISA processes given the upcoming expanse of eu-LISA’s mandate (audit universe).

Unit	Objectives of the activity	Outputs from the activity	Outcomes of the activity
IA	1. Provide independent, objective auditing and consulting services to the Executive Director and the Management Board	1. Audit reports, opinions and action plans for improvement	1. Effective, efficient risk management and control and governance processes and procedures are in place to enable eu-LISA to achieve its objectives

**2.2. Operational business-as-usual activities**

This section covers all operational activities of the Agency’s core operational business that are performed on a daily basis.

**2.2.1. Activities within the scope of Strategic Goal 1**

*Operational management and evolution of the existing systems*

## 2.2.1.1.24/7 first-level support for operational management of the systems — eu-LISA Service Desk

### MAIN ACTIONS OR TASKS

24/7 first-level operational management of VIS/BMS, SIS II and Eurodac, including:

- effective communication to Member States and other stakeholders;
- managing operational documentation with the Member States;
- event management and monitoring;
- participation in the incident lifecycle management according to the eu-LISA incident management policy;
- dealing with standard requests according to the eu-LISA request fulfilment policy;
- timely delivery of the agreed reports according to the eu-LISA service-level management policy;
- contribute regularly to the knowledge management as well as to the knowledge database.

### VALUE ADDED

eu-LISA Service Desk provides the necessary services to the core business system support for the Member States and other stakeholders.

### MAIN CHALLENGES

To ensure that services are provided according to the business systems rules and requirements as well as to the customers' expectations.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To maintain and continuously improve the everyday support activities and customer satisfaction	Efficient and effective first-level of support for eu-LISA core business systems and reliable communication for eu-LISA customers and stakeholders	Core business systems and Members States users receive efficient and reliable services as first-level of support and communication via the agreed	Service Desk performance indicators  Annual customer satisfaction survey	For Service Desk performance indicators: above 80%  For annual customer satisfaction survey: above 80%	The relevant Service Desk performance indicators reports  Annual customer satisfaction survey	OIU



### 2.2.1.2. 24/7 second-level application support for operational management of the core business systems

**MAIN ACTIONS OR TASKS**

24/7 second-level support (applications and databases) for the operational management of all core business systems including incident management, problem management, change and release management (deployment of RFCs and releases) and technical support to projects. Maintenance activities lead to the system performing in accordance with the service-level agreement, anticipated improvements and prevented incidents.

**VALUE ADDED**

The Agency will fulfil its legal obligations and will provide the Member States with the applications working in accordance with their business needs.

**MAIN CHALLENGES**

Ensuring that all services provided meet business expectations and technical specifications.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To ensure uninterrupted and high-quality 24/7 second-level application support for operations/management of core business systems	Uninterrupted and high-quality 24/7 second-level application support for operations/management of core business systems	Core business systems and Member States receive a reliable service of the applications including databases	Adherence to the operational service-level agreement of the applications	Maintenance activities lead to the system performing in accordance with the service-level agreement, anticipated improvements and prevented incidents	Internal reports on the performance of the system and SLA	AMMU

### 2.2.1.3. Eurodac maintenance

#### MAIN ACTIONS OR TASKS

Continuous monitoring of the system’s operation and its components (monitoring of Eurodac core system operational status and user connectivity and operation):

- communication/interaction with the end-user community with the aim of improving and stabilising operations;
- provision of user support;
- provision of third-level support/incident management, problem management, operational change management, request fulfilment;
- use and maintenance of operational tools to support the above aims;
- continuous monitoring of the system inventory and components to ensure that they are kept up to date and under continuous support from suppliers (licence renewal, patching, etc., as part of the adaptive maintenance);
- implementation of urgent technical upgrades and interventions coming from corrective maintenance and operational emergencies;
- management of interaction with the MWO contractor and contractual follow-up for the above aims.

#### VALUE ADDED

The Agency will fulfil its legal obligations and will provide the Member States with the system working in accordance with business needs.

#### MAIN CHALLENGES

A sudden increase in Eurodac traffic (due to a crisis situation) could increase the risk of instability and resource pressure (human resources, technical environments usage, time constraints) owing to unforeseen technical mitigation measures. Data centre space availability issues may affect smooth operation (e.g. overheating within racks due to lack of additional space, difficulties in adding infrastructure in the event of issues, for example due to capacity pressures).

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To maintain Eurodac in optimal working order	Eurodac operates as required (stable operation as per SLAs)  Eurodac is continuously covered by the technical support	The Member States receive a reliable service from the Eurodac system	Conformity to the Eurodac SLA and Eurodac-related corporate KPIs	Standard and specific Eurodac SLA met 100% (see Annex XI)	Reports on the performance of the system (based on the operational tools and generated SLA statistics)	AMMU

guaranteed by its  
suppliers

### 2.2.1.4. *DubliNet maintenance*

#### MAIN ACTIONS OR TASKS

Monitoring of DubliNet operation:

- generation of encryption certificates for the Member States;
- communication/interaction with the end-user community, with the aim of ensuring smooth operation and providing support in case of issues;
- communication with third party providers for troubleshooting purposes (e.g. TESTA-ng);
- take urgent technical measures/perform necessary updates in case of issues or to satisfy operational needs.

#### VALUE ADDED

The Agency will fulfil its legal obligations and will provide the Member States with a system working in accordance with business needs.

#### MAIN CHALLENGES

Lack of full control over DubliNet components (e.g. mail relay) may introduce delays on the support provided to the Member States.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions	To ensure smooth DubliNet operation for the Member States	DubliNet operates as required (stable operation as per SLAs)	The Member States are receiving reliable and	Set up and adhere to the DubliNet	DubliNet SLA met 100% <sup>93</sup>	Periodical operational and maintenance reports	AMMU

<sup>93</sup> On approval of the new legal basis (Eurodac Recast) giving eu-LISA full operational responsibility for DubliNet, eu-LISA expects to establish a specific SLA for DubliNet in agreement with the Member States.

to stakeholders as per mandate			uninterrupted DubliNet services	operational service-level agreement			
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### 2.2.1.5. *VIS/BMS maintenance*

**MAIN ACTIONS OR TASKS**

Guarantee the quality and delivery of contractual deliverables from the MWO<sup>94</sup> FwC<sup>95</sup>. Ensure maintenance services continuity throughout the FWC under:

- corrective maintenance: incident management, problem management, change management;
- adaptive maintenance: monitor and anticipate the obsolescence of system components so that VIS/BMS constantly remains compliant with state-of-the-art technologies and support is available from component manufacturers and editors;
- perfective maintenance: improve, based on technical expertise and identified upturns, VIS/BMS components so that they perform at their best;
- preventive maintenance: perform changes to the VIS/BMS based on operational observations to prevent an identified potential source of an issue to be materialised into an incident.

**VALUE ADDED**

The Agency will provide the Member States with VIS/BMS working in accordance with the VIS/BMS legislative framework and agreed SLA.

**MAIN CHALLENGES**

To ensure that VIS/BMS changes required as part of maintenances activities are properly integrated into the global VIS/BMS roadmap and deployed in a timely manner so that the system performs in accordance with the VIS/BMS legislative framework and the relevant SLA.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
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<sup>94</sup> Maintenance in working order

<sup>95</sup> Framework contract

<p>Provide reliable and cost-effective solutions to stakeholders as per mandate</p>	<p>To ensure that VIS/BMS performs as per requirements on availability/performance and that events are managed according to ITSM and SLA with the end-users</p> <p>With the adaptive maintenance, ensure that VIS/BMS is covered by the support of the manufacturers</p>	<p>VIS/BMS system performs as per SLA</p>	<p>VIS/BMS behaves as per requirements and events preventing the system from behaving appropriately are managed in a timely manner so that performance remains within the service-level agreement with the end-users</p>	<p>Adherence to the VIS/BMS service-level agreement</p>	<p>VIS/BMS maintenance activities lead to the system performing in accordance with the SLA, anticipated improvements and prevented incidents (see Annex XI)</p>	<p>Periodical operational and maintenance reports including SLA and monthly service reports</p>	<p>AMMU</p>
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### 2.2.1.6. *SIS II maintenance*

#### MAIN ACTIONS OR TASKS

This activity includes:

- corrective maintenance: incident management, problem management, change management, release management, etc.;
- adaptive maintenance: monitor and anticipate the obsolescence of system components so that SIS II constantly remains compliant with state-of-the-art technologies and support is available from both component manufacturers and editors; implementation itself not included (carried out as evolutions);
- use and maintenance of operational tools to support the above aims;
- continuous monitoring of the system inventory and components to ensure that they are kept up to date and under continuous support from suppliers (licence renewal, patching, etc.);
- management of interaction with the MWO contractor and contractual follow-up for the above aims; associated technical support and training.

#### VALUE ADDED

SIS II CSIS available 24/7 within SLAs.

#### MAIN CHALLENGES

New biometric technology introduced can be a challenge for incident and problem resolution.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To ensure 24/7 availability of the system	SIS II CSIS available 24/7 within SLAs (availability, performance)	SIS II system available and within SLAs in 2019	Conformity to the SIS II SLA and SIS II-related corporate KPIs	Standard and specific SIS II SLA met 100% (see Annex XI)	Internal SIS data Service Desk data L2 eu-LISA available data Periodical operational and maintenance reports	AMMU

### 2.2.1.7. SIS II AFIS maintenance

#### MAIN ACTIONS OR TASKS

This activity includes:

- corrective maintenance: incident management, problem management, change management, release management, etc.;
- adaptive maintenance: monitor and anticipate the obsolescence of system components so that SIS II AFIS constantly remains compliant with state-of-the-art technologies and support is available from component manufacturers and editors; implementation itself not included (carried out as evolutions);
- use and maintenance of operational tools to support the above aims;
- continuous monitoring of the system inventory and components to ensure that they are kept up to date and under continuous support from suppliers (licence renewal, patching, etc.);
- management of interaction with the MWO contractor and contractual follow-up for the above aims;
- associated technical support and training.

#### VALUE ADDED

SIS II CSIS available 24/7 within SLAs.

#### MAIN CHALLENGES

New biometric technology introduced can be a challenge for sufficient incident and problem resolution.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To ensure 24/7 availability of the system	To ensure SIS II AFIS available 24/7 within SLAs (availability, performance)	SIS II AFIS system available and within SLAs in 2019	Conformity to the SIS II SLA	Standard and specific SIS II SLA met 100% (see Annex XI)	Internal SIS data Service Desk data L2 eu-LISA available data	AMMU

### 2.2.1.8. SIS II support to Member States (including integration of new users)

**MAIN ACTIONS OR TASKS**

- Support the actual integration of new Member States into SIS II.
- Provide ongoing support to the Member States during the qualification process for the evolution of their individual national systems.
- Conduct test and qualification campaigns.

**VALUE ADDED**

- Member States’ national systems properly functioning when interacting with the central system.
- Overall Member States operation not impacted by problems in other Member States’ systems.
- New Member States smoothly integrated into SIS II community.
- Conformance with interface control document (ICD) and detailed technical specifications of national systems.

**MAIN CHALLENGES**

- Increased complexity resulting from biometric technology introduced into the system.
- Increased complexity resulting from interoperability initiatives.
- Overlap with other project activities.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions	To ensure that national systems are ready to	Testing reports for different stakeholders confirming readiness of	Support to national systems properly delivered	Quality and time of Member States integration	New Member States properly integrated	SIS II data	AMMU

to stakeholders as per mandate	operate with central system	the Member States for operation with CSIS. New Member States joining SIS II ready for integration and integrated in the appropriated moment		Member States testing adherence to the plan	within agreed deadlines Member States' national systems tested per plan	Operational and testing data Information from new Member States	
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### 2.2.1.9. Operational management/daily system management operations

**MAIN ACTIONS OR TASKS**

- Core business systems operational management, systems and infrastructure administration.
- End-user workstation operational management.
- Monitoring/backup systems set-up and operations.
- Evolution of systems management processes.
- CSI set-up and operational management.
- Data centres operational management.

**VALUE ADDED**

All systems administration operations provide the necessary reliable and available services to core business systems and CSI (in accordance with SLAs in place).

**MAIN CHALLENGES**

Ensuring that all services provided meet business expectations and technical specifications.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Proper maintenance, set-up and monitoring core business systems under eu-LISA's management to ensure	Secure and reliable operational management of central business systems (core business systems)	Both core business systems and Member States receive a reliable infrastructure in line with agreed SLAs	Conformity with core business systems and CSI SLAs	All systems' infrastructure will be available in compliance with their specific services and SLAs as	System Performance Internal Reports	OIU



### 2.2.1.10. *Operate, manage and maintain the backup data centre and backup operational site in St Johann im Pongau, AT*

**MAIN ACTIONS OR TASKS**

24/7 daily operation of the IT infrastructure for core business systems, covering operational management, release and change management, incident and problem management and resolution, maintenance activities and facilitation of project execution to ensure uninterrupted functioning of core business systems and limit the potential loss of data in the case of a Central Unit (CU) incident.

**VALUE ADDED**

Fulfilment of the requirements of the new founding regulation (Article 1(6)) to keep the large-scale IT systems functioning in accordance with the specific provisions applicable to them.

**MAIN CHALLENGES**

No major challenges expected at this point.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
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<sup>96</sup> SM9 is an ITSM Tool using the ITIL framework .

Provide reliable and cost-effective solutions to stakeholders as per mandate	To ensure uninterrupted and high-quality 24/7 level 1 operation/management of core business systems and underlying infrastructure	Uninterrupted and high-quality 24/7 operation/management of core business systems	The Member States receive a reliable service from the core business systems	Number of issues of eu-LISA's BCU infrastructure that interrupt the services of the core business systems towards the Member States	Potential issues of eu-LISA's BCU infrastructure do not interrupt the services of core business systems for the Member States	Internal reports on the performance of the systems	OIU
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### *Operational management and evolution of the communication infrastructure*

#### *2.2.1.11. Operational management of the communication infrastructure and the related communication systems*

##### MAIN ACTIONS OR TASKS

- Core business systems (Eurodac, SIS II, VIS) local network infrastructure operational management.
- Local management network (end-user workstation) operational management.
- SIS II second encryption layer operational management.
- VIS second encryption layer operational management.
- VIS Mail systems operational management.
- SIS II Mail systems operational management.
- Evolution of network management processes.
- Evolution of network architecture.
- Trans European Services for Telematics between Administration (TESTA) activities:
  - supervision, including analysis and review of operational reports, the organisation of regular meetings related to the operations and the following up of points for action with the provider, and dealing with requests for changes and technical aspects of service orders;
  - coordination of relations between the Member States and the provider, maintaining lists of Member State contacts, and coordinating all network activities having

- an impact on a Member State;
- proposing technical specifications as requested by the Commission.

### VALUE ADDED

The communication infrastructure and related communication systems provide the necessary service to core business systems and to the Member States.

### MAIN CHALLENGES

Ensuring that the services provided meet business expectations and technical specifications.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To maintain and monitor networks under eu-LISA management to ensure security and reliability of communications infrastructure	Secure and reliable communication infrastructure and related communication systems operate as required	Core business systems and Member States receive a reliable service from the communication infrastructure and related communication systems	Conformity with the communication infrastructure SLAs	The communication infrastructure and communication infrastructure systems (VIS Mail, SIS II Mail) will be available according to the system-specific SLA outlined in the valid version of the eu-LISA Service Catalogue	Internal reports on the performance of the systems and SLA	OIU

### 2.2.1.12. Regular operational management of the communication infrastructure contracts (budget execution, acquisition, renewal, contract management)<sup>97</sup>

<sup>97</sup>

The implementation of this activity depends on the adoption of the relevant legislation.

**MAIN ACTIONS OR TASKS**

The activity will start once the handover from DG HOME has been completed and will continue from then on. It will cover:

- extending or renewing support on the Sirenemail and VIS mail components;
- acquisition of the VIS second encryption layer components;
- renewal of the SIS II second encryption layer components;
- contractual management of the SIS II and VIS TESTA-ng contract;
- contractual management of the VIS and SIS II mail systems’ support contracts;
- contractual management of the VIS and SIS II second encryption layer contracts;
- providing specifications for the extension of the specific contracts (SCs).

**VALUE ADDED**

The Agency will fulfil its legal obligation and provide the Member States a communication infrastructure for SIS and VIS in accordance with the legislative framework and SLA.

**MAIN CHALLENGES**

No major challenges identified.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Ensuring that the communication infrastructure meets requirements in terms of availability and performance. For Sirenemail and VIS Mail in particular it must be ensured that all components are covered by third party	Maintenance of the communication infrastructure is managed so that the system performs as per service-level agreements and support is provided to Member States	Communication infrastructure behaves as per requirements. Events preventing the system from behaving properly are managed in a timely manner so that performance remains within service-level agreements	Adherence to communication service-level agreements	Communication infrastructure performing in accordance with the SLA, anticipated improvements and prevented incidents	Monthly SLA reports	OIU

	and manufacturing support						
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*Security and business continuity*

**2.2.1.13. Implementation of the recommendations coming from the security and business continuity exercises**

**MAIN ACTIONS OR TASKS**

This activity includes:

- review of the action plans following the exercise recommendations;
- execution of the action plans;
- post-implementation review.

**VALUE ADDED**

Ensuring the validation and continuous improvement of the security and business continuity of the systems.

**MAIN CHALLENGES**

Prioritisation of the allocation of the resources for the security and business continuity exercises.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
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Strengthen security, cybersecurity and information management capabilities	To ensure the security and business continuity of the systems	The action plans from the security and business continuity exercise implemented	Ensuring the continuous improvement of the security and business continuity of the systems	Percentage of the implementation of the action plan	85%	Post-implementation review reports	SEC
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### 2.2.1.14. *Delivering the information security and assurance service*

#### MAIN ACTIONS OR TASKS

- Govern
  - security policy, standards and guidance;
  - security architecture;
  - security awareness and training;
  - reporting and communication.
- Assess
  - risk management;
  - threat modelling;
  - threat intelligence.
- Assure
  - security assessments and audits;
  - vulnerability assessments and penetration testing;
  - cybersecurity exercises and Red Team.
- Protect
  - identity and access management;
  - secure configuration;
  - network security;

- secure system development and application security;
- endpoint security;
- cryptography and public key infrastructure;
- technical vulnerability management.
- Monitor
  - security monitoring.
- Respond
  - security incident management;
  - digital forensics.
- Recover
  - ICT business continuity management.

**VALUE ADDED**

- Security risks are managed to an acceptable level.
- Compliance with legal and business requirements.
- Increased trust of stakeholders.
- Increasing reputation of the agency as a trustworthy and secure custodian of sensitive EU internal security and border management information.

**MAIN CHALLENGES**

- Lack of priority with regard to other tasks.
- Scope creep from non-core tasks.
- Increase in complexity of project activity outstripping resource capacity.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Strengthen information security capabilities related to	Delivering the information security and assurance service	Security policy; security risk assessments; security plans; security	Ensuring that information security risks are managed to an acceptable level	% of business processes and their services covered by the	60%	Internal risk assessment reports E-learning reporting	SEC

the systems entrusted to the Agency	according to European Commission 2017/46	awareness and training, security architecture, security assessments and audits; software maintenance and licences; security testing, security monitoring and incident management		information risk management process  % of staff that have completed the security awareness e-learning training  % of security controls implemented in each Information System Security Plan	75%  65%	Self-assessment questionnaire	
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### 2.2.2. *Activities within the scope of Strategic Goal 2*

*Corporate governance (centre of excellence, governance, planning and corporate statutory reporting, quality management, internal audit, etc.)*

#### 2.2.2.1. *eu-LISA ITSM framework maintenance and development*

**MAIN ACTIONS OR TASKS**

- Supervision and annual review of the processes, considering possible improvements in the process definition as well as process implementation.
- Enhanced regular reporting on processes KPIs and on the agreed SLAs.
- Implementation and reporting for the ITSM Phase 2 processes, namely regarding capacity management, availability management, knowledge management and continuous service improvement.
- Monitoring and suggesting maturity evolution of processes via continuous service improvement to support the lifecycles of the implemented processes.
- Considering and suggesting possible improvements in the eu-LISA ITSM tool.

**VALUE ADDED**

- Significantly improved running and control of the processes.
- Enhanced reporting using online SMg data and the defined KPI per system.
- Definition and implementation of needed new processes, part of the eu-LISA ITSM framework.
- Maturity evolution of processes via continuous service improvement.
- Maintenance of an agreed register with improvements and initiatives.
- Optimised efficiency via leveraging ITSM tool capabilities to the eu-LISA systems and contractors support.

#### MAIN CHALLENGES

- Lack of priority over tasking.
- Lack of proper process control and supervision.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Develop and maintain an efficient and effective governance and service model to achieve and maintain operational excellence	To maintain, monitor and report on the adopted eu-LISA ITSM processes as well as further develop the new ones, guaranteeing high level of process integration	Guaranteeing the efficient review, support and needed further development of the eu-LISA processes and service model	Core business systems and the Member States receive reliable services, following effectively the eu-LISA ITSM framework usage	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Documentation on the relevant processes KPI reports	OIU

### 2.2.3. *Activities within the scope of Strategic Goal 3*

*Not applicable. No business as usual activities for Strategic Goal 3 are envisaged for 2019.*

## 2.2.4. Activities within the scope of Strategic Goal 4

### Human resources and knowledge management

#### 2.2.4.1. Training for eu-LISA staff related to operations (technical training for staff)

##### MAIN ACTIONS OR TASKS

- Organisation of technical training within the existing framework contracts, analysing and using individual training offers/contracts, in-house training and knowledge sharing;
- Administrative handling of training requirements identified through training needs analysis carried out by monitoring training events and reporting on the results.
- Cooperation with the Operations Department on the planning and delivery of technical training.

##### VALUE ADDED

eu-LISA's operational staff will be able to perform better and offer better services to the Agency's stakeholders.

##### MAIN CHALLENGES

Availability of the funds for this type of training, availability of expert knowledge on the market and workloads may affect participation in the training. These risks can be mitigated by good planning and prioritisation.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Continue to be an attractive employer, retain and continuously develop staff	To ensure eu-LISA provides high-level service and innovation to its internal stakeholders through increased knowledge of its own staff	Courses related to operations and systems will be provided to eu-LISA's staff	eu-LISA's staff will be able to better perform and will be acquainted with the best practices in the field of technology	Number of training days per year General satisfaction level	400 working days of training per year Satisfaction level not less than 80%	SMART report and other relevant reports	HRU

## 2.3. Operational project activities

This section covers all operational activities of the Agency's core operational business that are performed on project bases.

### 2.3.1. Activities within the scope of Strategic Goal 1

*Operational management and evolution of the existing systems*

#### 2.3.1.1. CSI second phase implementation maintenance, including reorganisation of the data centres

##### MAIN ACTIONS OR TASKS

- Regular follow-up including updating of core infrastructure status via incident/problem/change and request management.
- Applying technical and security patching.
- Implementation of corrective maintenance.
- Implementation of the new racking solution, containment for power efficiency, secured access to the racks, monitoring of the rack capacity (power, cooling, etc.).
- Rearrange rack disposal for SFR and Orange racks to cope with data centre layout.

##### VALUE ADDED

- CSI availability met as per SLA.
- Activities related to shared services (e.g. application security tools, common monitoring), procured outside core business system contracts, are maintained/supported via a unique MWO.
- Space allocation, proper monitoring of rack capacity, power and cooling increased capacities.

##### MAIN CHALLENGES

- Brand new contractor for CSI without eu-LISA core business systems experience.
- Reduced physical space that needs proper management.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Proactively identifying any configuration items (CIs) reaching end of support period  Keeping all CIs under appropriate vendor support  Reorganisation of the data centres to properly manage the space and cope with new systems requirements	Continuous maintenance of the common shared infrastructure according to the infrastructure inventory and CSI service catalogue  Fully reorganised data centres (CU and BCU)	Mandatory maintenance within FwC CSI including programme management  Mandatory reorganisation of the data centres for new infrastructure accommodation  CSI maintained 24/7, in line with eu-LISA agreed SLAs	Maintenance SLAs met as per contract  CBS performance indicators	100%	KPI measurement via ITSM cool  Monitoring of core business systems availability	OIU

### 2.3.1.2. CSI second phase implementation

#### MAIN ACTIONS OR TASKS

In 2018, to host the Common Shares Services, a common shared infrastructure will have been put in place. This minimal infrastructure will act as the basis for future infrastructure changes required to host virtualised applications.

In the meantime, the shared services, necessary to operate the infrastructure (active directory, time management, etc.) or to ease technical management (central database management, common monitoring, etc.), will have been partially implemented in 2018 owing to budget limitations. The remaining shared services not implemented in 2018 will have to be implemented in 2019. The exact list of services to be implemented in 2019 depends on the outcomes of 2018 and is therefore not known now.

To summarise: this activity involves the implementation of the final set of CSI work packages in 2019. Implementation already started in 2017 (CSI in place) and 2018 (first set of common shared services implemented). In this activity, the remaining set of common shared services will be implemented by preparing and following-up the relevant SCs.

#### VALUE ADDED

eu-LISA’s core business systems will benefit from a shared common infrastructure layer and related services implemented on top that can significantly reduce the total cost of ownership, as the core business systems will no longer run in a silo-mode approach, with replicated technical services.

**MAIN CHALLENGES**

Data centre space limitations that may severely impact the CSI implementation, as the relevant CSI equipment needs to be stored in eu-LISA’s data centres in Strasbourg (CU) and St Johann im Pongau (Backup Central Unit (BCU)).

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	<p>Implement the remaining shared services, as identified in the Common Shared Services/Virtualisation Active/Active Study results</p> <p>In this way, eu-LISA will be able to efficiently and effectively run its core business systems, on top of a shared common infrastructure, aiming at total cost of ownership savings</p>	<p>Continue common shared infrastructure implementation based on Common Shared Services/Virtualisation Active/Active Study results</p> <p>This project will deliver the remaining set of common shared services on top of the common shared infrastructure</p>	<p>Common shared services, on top of a common shared infrastructure with virtualisation foundations, affecting the core business systems by offering a more efficient and effective operational management, by eliminating the current ‘silo approach’ mode</p>	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Project interim and final/closure reports	OIU

*2.3.1.3. Integration of asset management with configuration management*

**MAIN ACTIONS OR TASKS**

- Data harmonisation between these two processes;

- Identifying the reliable data sources for the processes as basis for the integration;
- Having a single integrated view of the process, using best practices of both ITIL configuration management and asset management.

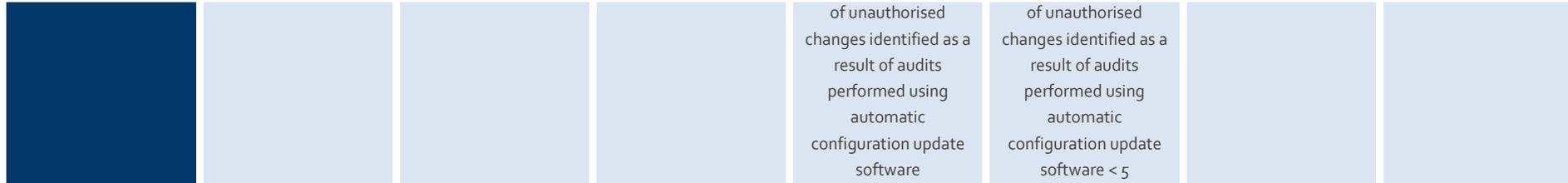
**VALUE ADDED**

- Efficient total cost of ownership;
- Extended tangible benefits to people in contracts, procurement and finance, thus alignment with cross-organisational people and processes;
- Cost, benefits, service impact and risk mitigation benefits are highly leverageable across organisation.

**MAIN CHALLENGES**

- Ensuring process owners’ commitment.
- Coordination between IT and process owners.
- Following a project approach with milestones for process definition, software implementation, integrations, training, testing and rollout.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Establish processes that optimise the cost and the utilisation of each asset	A system allowing a complete overview over configuration items with technical features, financial, licensing, procurement and request management  Data harmonisation between these two processes	A single, centralised and relational repository for contract, financial, operational status of the IT components and assets	Percentage of assets and configuration items covered by the integration model  Number of incidents reported where the underlying cause of the incident is the result of inaccurate configuration management information  Number of unauthorised changes detected automatically: number	Percentage of assets and configuration items covered by the integration model 80%  Number of Incidents reported where the underlying cause of the incident is the result of inaccurate configuration management information < 5  Number of unauthorised changes detected automatically: number	Project documentation  The Universal Configuration Management Database	OIU



### 2.3.1.4. Single integrated monitoring solution — continuation from 2018

#### MAIN ACTIONS OR TASKS

- As a continuation from 2018, when Phase 1 of the project is supposed to be completed, Phase 2 and Phase 3 are expected to begin:
  - Phase 1 (2018): the solution to be in place for Service Desk on the central site as well as on the backup site.
  - Phase 2 (2019): extension of the solution to all the non-operational areas as well as to the headquarters.
  - Phase 3 (2019): assessment/evaluation of the solution toward operational areas’ requirements, which are different from non-operational ones. Based on the outcome of the evaluation, extension of the solution to the operational areas.

#### VALUE ADDED

- Providing a much more efficient level of flexibility to operators for follow-ups and for communicating/highlighting any type of issues.
- Implementing the single integrated solution will provide a sufficient level of alignment for the monitoring solutions across all systems under eu-LISA management.
- Minimise significantly the risk for critical alert omission.

#### MAIN CHALLENGES

- Timeline could not be met, because of planning errors and corrections or dedicated new room for the eu-LISA Service Desk is not available in time.
- Constraints relating to security.
- Procurement takes substantially longer than expected.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
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Provide reliable and cost-effective solutions to stakeholders as per mandate	To monitor and maintain the core business systems in a more efficient and effective way	Modern and much more efficient Service Desk integrated monitoring solution	Core business systems will be monitored much closer, with a higher level of automation, minimising significantly the risks for underestimation of any potential issue	Increased satisfaction of the Service Desk operators  Minimising the potential risk for omission for critical alerts	Increased service Desk satisfaction with more than 10%  Critical alerts followed at 100%	Monitoring tools  Incident management tool	OIU
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### 2.3.1.5. New SIS legal framework<sup>98</sup>

#### MAIN ACTIONS OR TASKS

- New functionalities, business rules, data fields, alerts and object categories under Articles 26, 32, 36 and 38 of the new SIS Regulation.<sup>99</sup>
- Provide additional data fields under Article 24 of the SIS Regulation and for better person identification.
- Fine-tuning of the central system from the capacity perspective.

In particular, in 2019, eu-LISA will focus on granting requested accesses to Europol, European Border and Coast Guard Agency and Eurojust.

#### VALUE ADDED

Improve law enforcement and border control SIS capabilities through the additional functionalities identified.

#### MAIN CHALLENGES

- There will be a need to coordinate closely all the stakeholders at any stage of this project.
- The Member States will have to achieve the given milestone at the due time regarding ICD.

<sup>98</sup> The SIS package was adopted on 28 November 2018 (OJ L 312, 7.12.2018, p. 1-106).

<sup>99</sup> Regulation (EU) 2018/1861 of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of border checks, and amending the Convention implementing the Schengen Agreement, and amending and repealing Regulation (EC) No 1987/2006.

- Implementation, to enable testing operations, as this is a major step in delivering the project.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To provide new categories of alerts in SIS, additional data fields, new object categories and new users to the system	The project will provide new functionalities defined in the new legal basis of SIS for law enforcement and border control	New SIS central system releases including the new SIS core functionalities identified in the recast legal instrument (return decision not included)	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Project interim and final/closure reports	AMMU

### 2.3.1.6. SIS return decision<sup>100</sup>

#### MAIN ACTIONS OR TASKS

- Implementation of the new return decision alert plus the related functionality.
- Fine-tuning of the central system from the capacity perspective.

#### VALUE ADDED

Improve migration and law enforcement SIS capabilities by improving the control, status and information of return decisions issued (currently not properly controlled).

#### MAIN CHALLENGES

- There will be a need to coordinate closely all the stakeholders at any stage of this project.
- The Member States will have to achieve the given milestone at the due time regarding ICD implementation.

<sup>100</sup> Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the use of the Schengen Information System for the return of illegally staying third-country nationals.

- Failure to enrol appropriate business knowledge on European return decision, current activities and practices will jeopardise the project.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To provide new categories of alert (return decision) plus related functionality	This project will provide a new return decision functionality defined in the new legal basis of SIS	A new SIS central system release including return decision functionalities	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Project interim and final/closure reports	AMMU

### 2.3.1.7. Implementation of VIS/BMS end-to-end testing platform (continuation from 2017 and 2018)

#### MAIN ACTIONS OR TASKS

This activity aims at defining and implementing a flexible end-to-end VIS/BMS testing solution based on commercial off-the-shelf (COTS) and industry standards, covering functional and non-functional aspects. In addition, the project includes the definition and implementation of a global and representative VIS/BMS test database, unlike the current situation in which two VIS and BMS databases coexist.

#### VALUE ADDED

Implementing a standardised and flexible test tool with automation will bring the following benefits:

- There will be no dependency on a deprecated and proprietary solution (which is expensive and inefficient in terms of evolution, maintenance and support).
- A significant amount of additional target capacity and performance improvements are envisaged, allowing the reuse of the same set of automated tests.
- Manual testing can be mundane, error prone and therefore become exasperating. Test automation allows the test execution with very limited user interaction while guaranteeing repeatability and accuracy. eu-LISA staff will have more capacity to continuously improve the qualification process instead of concentrating a lot of effort to re-execute the existing test scenarios.
- With automated test cases, eu-LISA would be able to run thorough test campaigns for smaller changes (such as corrective/adaptive maintenance) thus ensuring continuous and better quality assurance of the system.
- Documentation and reporting will be automatically generated.

- External work force availability is increased when standardised test tools are used.

## MAIN CHALLENGES

The implementation and qualification of the project's products will require joint availability of VIS and BMS test environments that may conflict with other workstreams.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	VIS and BMS test tools are implemented based on industry standard and COTS (to be achieved in 2018). The two separate existing BMS and VIS databases are merged into one global and representative database	Implemented VIS/BMS flexible end-to-end testing solution and one database for BMS and VIS	VIS and BMS are improved and evolved to adapt to business needs and legislative changes	Adherence to the required quality, budget, time and scope	The project is delivered in the required scope, quality and timeframe	Project interim and final reports	AMMU

### 2.3.1.8. USK renewal (continuation from 2018)

#### MAIN ACTIONS OR TASKS

As a continuation of the studies and agreements made in 2016 and 2017, the project aims at providing Member States with a standardised fingerprint acquisition toolkit, including also the set-up of a future central support and maintenance service provided by eu-LISA.

As an action to the needs raised by Member States, eu-LISA conducted two studies in 2016 with the aim of finding a common fingerprint acquisition toolkit suitable to the high variety of Member States' needs. As an outcome of the studies and related follow-up discussions/agreements, the project includes the provisioning of a customised Safran product called MorphoKit to Member States, related qualification, release and training activities, the required number of workstation licences as well as the set-up of a centralised maintenance and support service through the eu-LISA Service Desk. Since some Member States already invested in open source solutions such as National Institute

of Standards and Technology (NIST) NFIQ 2.0,<sup>101</sup> they can continue maintaining their solution by providing compliance with the quality standards defined by eu-LISA.

**VALUE ADDED**

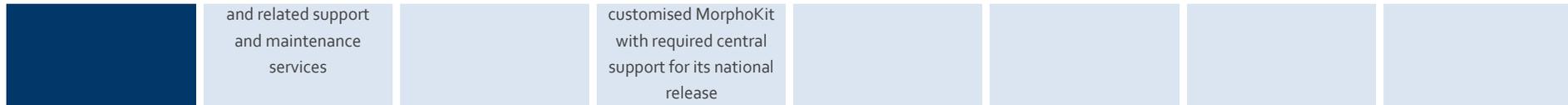
The main aspect, which has to be considered for the expected benefits, is the standardisation of the fingerprint acquisition toolkit, which is a big step forward for the insertion of high quality biometric data into the central system. Member States are currently using a big variety of tools, each of them having their own biometric algorithms and there is no common standard with which they can all comply. In addition to this, Member States using the old Morpho USK toolkit have a growing number of problems because their tool has become obsolete: it does not support the latest version of operating systems and there is no vendor support and/or maintenance accessible. As a consequence, and also because of o-FTEs, the required data quality for the smooth performance of business operations of VIS/BMS is hard or impossible to guarantee. Bad and/or non-standardised biometric data quality requirements not only might result in decreased central system performance but might also affect the business efficiency of the VIS as defined in the related regulation.

**MAIN CHALLENGES**

The smooth, progressive and timely release of MorphoKit to all European consular posts and ESPs will have to be coordinated by the national authorities; it will involve a considerable amount of work and challenging stakeholder management.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	The objective of the project is to standardise the computation of fingerprint quality on the Member State side by providing them with an appropriate toolkit	Provisioning of a standardised fingerprint acquisition toolkit	Delivery of a fingerprint quality standard document to which all Member States using custom acquisition tools will have to comply and the delivery of a	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and time frame	Project interim and final/closure reports	AMMU

<sup>101</sup> NIST Finger Image Quality software.



### *2.3.1.9. BMS database increase (Phase 1, continuation from 2017 and 2018)*

#### **MAIN ACTIONS OR TASKS**

This is the first phase of the BMS PPE and Production Platform (PRD) upscale multi-annual project starting in 2017 with the aim of improving the storage capacity of BMS from 60 MIO to 100 MIO fingerprint template records. This first phase starting in 2017 and ending in 2019 includes an upscale up to 85 MIO records, while the second phase will target a further upscale from 85 MIO to 100 MIO records. The upscale includes both PPE and PRD in its scope, starting with PPE to be able to successfully qualify the changes before rolling them out to PRD. The project does not include the delivery of an upscale background database in its scope, which forms part of the scope of the 'implementation of VIS/BMS end-to-end testing platform' project launched in 2017.

The main technical activities part of the project include the insertion of new storage area network capacity, new blades and blade enclosures and the extension of existing matching units. The provisioning of additional Morpho licences is also part of the main activities.

The scope of this project includes completion of the SST campaign, the entry into operation of the upscaled PPE and PRD, and the execution of the final system acceptance phase.

#### **VALUE ADDED**

Compulsory evolution to ensure sufficient database storage capacity for production business operations. Without this evolution, and considering the latest forecasts/projections from the border management system sector, BMS will reach its database capacity ceiling of 60 MIO in 2019, causing huge business effects for Member States (it would become impossible to add new visa applications).

#### **MAIN CHALLENGES**

The following risks can be identified:

- Unavailability of PPE for the requested duration. Probability: low. Impact: high.
- Unavailable data centre space if new racks are required. Probability: low. Impact: high.

- Unavailability of internal resources causing delays for various project phases. Probability: medium. Impact: high.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Extension of the existing database capacity of BMS to 85 MIO fingerprint template records	The expected output is an updated BMS database storage capacity to support up to 85 MIO fingerprint template records	Appropriate continuation of an existing service provided by eu-LISA to Member States	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Project interim and final/closure reports	AMMU

### 2.3.1.10. TST upscale to 100% PPE (Phase 1)

#### MAIN ACTIONS OR TASKS

During the last few years, a series of changes were carried out to the database and transactional throughput capacity of VIS and BMS. While there was a slow evolution of Pre-Production Environment, TST has been improved only as part of the ongoing 'reinforcement of the VIS-BMS testing infrastructure' project (Single Programming Document2016) through which eu-LISA performs a transactional throughput capacity increase of TST to 40% of PRD by implementing a simulated BCU passive environment and moving it to the shared virtual New Test Environment (NTE) platform. This upscale will allow the contractor to perform an improved qualification of future functional and technical evolution based on a more representative environment than before. However, this project is considered to be only an intermediate step to reach the final goal, namely the creation of a TST environment equal to PPE in terms of size and configuration. The qualification of changes delivered by the contractor is currently a long and difficult activity with several repetition cycles, owing to the number of issues usually discovered as part of the testing process. As per lessons learned, a significant portion of the issues are due to the inability of the contractor to perform its qualification campaigns in an eu-LISA-like test environment, where it would have the opportunity to detect and fix performance or configuration issues at an early stage.

#### VALUE ADDED

By delivering an environment similar in terms of size, configuration and background database to Pre-Production, eu-LISA expects a significant improvement in the quality delivered, reduced internal qualification time and thus a faster lead time to market in the case of any future evolution. Last but not least, an enhanced TST environment will also optimise the use of internal FTEs required for the product verification process.

**MAIN CHALLENGES**

The following risks can be identified:

- Unavailability of data centre space in the event that new racks are required. Probability: low. Impact: high
- Unavailability of internal resources causing delays for various project phases. Probability: medium. Impact: high

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Improve the product qualification process by providing the MWO contractor with a similar testing environment to Pre-Production	TST environment with the same database and transactional throughput capacity to PPE	A new test environment with similar capacity to Pre-Production	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Project interim and final/closure reports	AMMU

*2.3.1.11. New search engine and Oracle upgrade for SIS II, improving availability and considering transcription aspects*

**MAIN ACTIONS OR TASKS**

- Implement state-of-the-art search engine including new search functionalities.
- Increase query capacity.
- Reassign resources increasing alerts capacity.
- Optimise overall capacity.
- Upgrade to Oracle/WL 12.

**VALUE ADDED**

- State-of-the-art search functionalities.
- Additional capacity for queries (eight times that of original SIS core system design).
- Additional capacity for alerts.

**MAIN CHALLENGES**

- Limited resources.
- Conflict with other projects.
- Very challenging test of equivalence of queries.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Obtain cost-efficient state-of-the-art search functionalities Additional capacity in central system Allow in the near future use of the same engine in Member States	SIS central system will implement a new search engine for additional capacity on queries and alerts  Associated documentation upgraded	New SIS II central system cost-efficient state-of-the-art search functionalities  Additional query and alerts capacity Prepare search engine module for national systems	Timely delivery Manage budget within boundaries Quality of the delivery	Project needs to be finalised in 2019 No additional budget in 2019 State-of-the-art functionalities working properly Queries fully respecting SLAs	Project's stakeholders including Member States and the Commission  Programme board Testing activities and operational SIS II data  Interim and final reports from projects	AMMU

### 2.3.1.12. *VIS capacity increase to 100 MIO visa applications (continuation from 2017 and 2018)*

**MAIN ACTIONS OR TASKS**

The activity is a continuation from the previous years and leads to the qualification and deployment in production in 2019 of the final products.

**VALUE ADDED**

The Agency fulfils its legal obligations and will provide Member States with an upgraded version of VIS working in accordance with their business needs (from a capacity perspective).

**MAIN CHALLENGES**

- The risk that the consumption of the available capacity grows faster than estimated. This is mitigated by planning contingency and agility in delivering the necessary products faster, and possibly an adapted phasing of the implementation.
- Despite the fact that the *end of support* date has not yet been announced by the vendor, the current storage infrastructure is close to obsolescence. As a major change in the infrastructure, the planning for the replacement of the storage components will have to be thoroughly planned and its impact on the ongoing project avoided. Extended support could be considered to avoid or mitigate the dependencies between the ongoing projects and necessary adaptive maintenance activities.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	The objective is to provide VIS with the necessary capacity for coping with the regular increase of the number of visa applications and prevent storage shortage; also, the activity includes the virtualisation of a number of components	VIS infrastructure is upgraded to manage up to 100 MIO visa applications	VIS system is able to manage up to 100 MIO visa applications, satisfying future business needs	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and allocated timeframe	Project interim and final/closure reports	AMMU

### 2.3.1.13. *VIS new users integration: Europol*

**MAIN ACTIONS OR TASKS**

Design, build, qualify and deploy changes to VIS and BMS systems.

**VALUE ADDED**

VIS and BMS systems are compliant with the legal basis.

**MAIN CHALLENGES**

Availability of an inception capacity analysis to identify the impact on the load sent against VIS of the new users integration together with the updated distribution of the

system’s capacity per user.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to Member States as per mandate	The activity reinforces the added value of services provided by VIS and BMS systems with the integration of non-Member State organisations to support integrated border management and law enforcement	A new configuration of VIS and BMS systems is designed, built, qualified and deployed, allowing new Europol users to use VIS	Europol can connect and use VIS system as per legal basis	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Project interim and final/closure reports	AMMU

### 2.3.1.14. *Granting of passive access for Bulgaria and Romania to VIS*

**MAIN ACTIONS OR TASKS**

Design, build, qualify and deploy changes to VIS and BMS systems.

**VALUE ADDED**

VIS and BMS are compliant with legal basis.

**MAIN CHALLENGES**

There are no particular risks concerning this activity.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
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Provide reliable and cost-effective solutions to Member States as per mandate	The activity reinforces the added value of services provided by VIS and BMS systems with the integration of new users to support border management and law enforcement	A new configuration of VIS and BMS systems is designed, build, qualified and deployed, allowing new users (BG and RO) to use VIS in read-only mode	BG and RO can use the VIS system as per legal basis	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Project interim and final/closure reports	AMMU
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### 2.3.1.15. Eurodac recast Phase 1 — updates as per recast proposal: search storage of CAT<sub>1,2,3</sub>, new biographical/biometric data, capacity upgrade and face recognition study<sup>102</sup>

#### MAIN ACTIONS OR TASKS

- ICD updates.
- Cooperation with the AG and the Member States in the framework of expert groups and the project management forum to coordinate the central and national projects' implementation and planning alignment.
- Finalisation of the implementation of Eurodac functional updates as per legal proposal (all categories of data (CAT<sub>1,2,3</sub>) stored and searched, facial images stored and retrieved, new biographical data stored, new data retention periods applied and age limits lowered).
- Increase database capacity and transaction throughput based on continuous monitoring of the core system traffic and usage trends, as well as traffic projections owing to the scope extension.
- Testing and qualification of the new Eurodac release in PPE.
- Perform operational tests with the Member States and system acceptance testing before deployment to production.

<sup>102</sup> Subject to the pending renewal of the Eurodac Regulation.

- Initiate project closure activities and provide final system acceptance.
- Conclude the study on face recognition and set the planning for inclusion of face recognition in Eurodac.

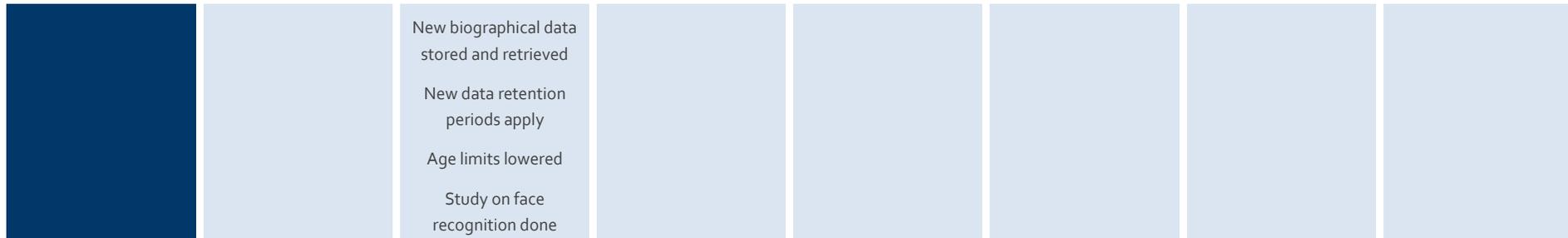
**VALUE ADDED**

The Agency will fulfil its legal obligations and will provide Member States with a system working in accordance with their business needs. Apart from compliance with the asylum policy and the new Dublin framework, Eurodac will facilitate the illegal migration tracking and the implementation of the European return policies.

**MAIN CHALLENGES**

- The complexity and difficulty of aligning planning for core system and national system projects may introduce delays in testing and system readiness.
- Data centre space availability issues may seriously affect the implementation of the project (new infrastructure/rack space will be needed, especially for the capacity upgrades).
- Resource unavailability may negatively affect the project.
- Risk of non-availability of technical environments for testing, release deployment, etc., owing to parallel complex projects.
- A possible decision on a common ABIS, leading to drastic architectural changes, would introduce major complexity and resource pressures in parallel.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	<p>To align Eurodac with the requirements set in the recast Eurodac proposal</p> <p>To properly size Eurodac to sustain the increased load owing to the new business needs from Eurodac recast</p>	<p>Eurodac updated as per recast:</p> <p>Capacity increased (to cope with the increased transactions and usage of Eurodac as a result of recast)</p> <p>All data (CAT<sub>1,2,3</sub>) stored and searched</p> <p>Facial images stored and retrieved</p>	Eurodac in line with the recast provisions and sized properly to allow compliance of the Member States with the new legal basis	Adherence to the agreed project scope, budget and time	The project is delivered in the approved scope, budget and timeline	<p>Periodical project progress reports and dashboards</p> <p>Project documentation repository (project plan, decision log, exception reports)</p>	AMMU



### 2.3.1.16. *Eurodac recast Phase 2.1 — inclusion of passport copies and other (ID) documents to Eurodac<sup>103</sup>*

#### MAIN ACTIONS OR TASKS

- ICD updates.
- Cooperation with the AG and the Member States in the framework of expert groups and the project management forum to coordinate the central and national projects' implementation and planning alignment.
- Implementation of Eurodac functional updates as per legal proposal to allow Eurodac to store and retrieve colour copies of passports and other ID documents in Eurodac (software and infrastructure changes).
- Testing and qualification of the new Eurodac release in PPE.
- Perform operational tests with the Member States and system acceptance testing before deployment to production.
- Project closure activities and final system acceptance.

#### VALUE ADDED

<sup>103</sup> Subject to legislative amendments.

- The agency will fulfil its legal obligations and will provide Member States with a system working in accordance with the business needs.
- The storage of passport copies will:
  - facilitate the establishment of the identity of migrants;
  - facilitate the work of the national authorities;
  - help to increase security in Europe through better alignment with return policies.

**MAIN CHALLENGES**

- The complexity and difficulty of aligning planning for core system and national system projects may introduce delays in testing and system readiness.
- Resource unavailability may negatively affect the project.
- A possible decision on a common ABIS or drastic architectural changes would introduce major complexity and resource pressures in parallel.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To align Eurodac with the new requirements introduced in the recast proposal and to facilitate the Member States compliance with return policies	Eurodac updated to store and retrieve colour copies of passports and other ID documents	The Member States are facilitated through the use of Eurodac in establishing the identity of irregular migrants and can comply with European return policies	Adherence to the agreed project scope, budget and time	The project is delivered in the approved scope, budget and timeline	Periodical project progress reports and dashboards  Project documentation repository (project plan, decision log, exception reports)	AMMU

**2.3.1.17. Eurodac recast Phase 2.2 — managing resettlements in Eurodac<sup>104</sup>**

**MAIN ACTIONS OR TASKS**

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<sup>104</sup> Subject to legislative amendments.

- ICD updates.
- Cooperation with the AG and the Member States in the framework of expert groups and the project management forum to coordinate the central and national projects' implementation and planning alignment.
- Implementation of Eurodac functional updates as per legal proposal to allow Eurodac to handle resettlements (software changes).
- Testing and qualification of the new Eurodac release in PPE.
- Perform operational tests with the Member States and system acceptance testing before deployment to production.
- Perform project closure activities and provide final system acceptance.

**VALUE ADDED**

- The agency will fulfil its legal obligations and will provide the Member States with a system working in accordance with their business needs and in line with the resettlement policy.
- Handling resettlements through Eurodac allows better integration of the flows and data processing activities performed by the Member States for purposes similar in nature (asylum, resettlement).

**MAIN CHALLENGES**

- The complexity and difficulty of aligning planning for core system and national system projects may introduce delays in testing and system readiness.
- Resource unavailability may negatively affect the project owing to various parallel Eurodac projects.
- A possible decision on a common ABIS or drastic architectural changes would introduce major complexity and resource pressures in parallel.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To align Eurodac with the requirements set in the Eurodac recast proposal for the management of resettlements under EU and national schemes	Eurodac updated to handle (store/search/retrieve) data for two new categories, representing resettled persons under EU and national schemes	The Member States can handle resettlements (under EU and national schemes) through Eurodac and can act in compliance with the legal basis (Eurodac recast — resettlements proposal)	Adherence to the agreed project scope, budget and time	The project is delivered in the approved scope, budget and timeline	Periodical project progress reports and dashboards Project documentation repository (project plan, decision log, exception reports)	AMMU

### 2.3.1.18. *Eurodac recast Phase 2.3 — alphanumeric searches to Eurodac*<sup>105</sup>

#### MAIN ACTIONS OR TASKS

- ICD updates.
- Cooperation with the AG and the Member States in the framework of expert groups and the project management forum to coordinate the central and national projects' implementation and planning alignment.
- Implementation of Eurodac component for alphanumeric searches (software/search engine and hardware/infrastructure changes).
- Testing and qualification of the new Eurodac release in PPE.
- Perform operational tests with the Member States and system acceptance testing before deployment to production.
- Perform project closure activities and provide final system acceptance.

#### VALUE ADDED

- The agency will fulfil its legal obligations and will provide Member States with a system working in accordance with their business needs.
- The system will be able to support alphanumeric searches by law enforcement authorities contributing to the improvement of security within Europe.
- This change will facilitate the implementation of the future interoperability roadmap, enabling homogeneous search capabilities among the European databases.

#### MAIN CHALLENGES

- The complexity and difficulty of aligning planning for core system and national system projects may introduce delays in testing and system readiness.
- Resource unavailability may negatively affect the project (additional FTEs need to be approved by the European Commission).
- The current Eurodac interface based on email exchange is not ideal from a technical perspective for supporting these new types of searches. A change of communication model to web services is envisaged (see Section 2.3.1.22).
- Risks related to the complexity of aligning planning and resources with the 'change communication to web services' project.
- Data centre space availability issues may seriously affect the implementation of the project (new infrastructure/rack space will be needed).
- Risk of non-availability of technical environments for testing, release deployment, etc., due to parallel Eurodac projects.

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<sup>105</sup> Subject to the pending renewal of the Eurodac Regulation.

- A possible decision on a common ABIS or drastic architectural changes would introduce major complexity and resource pressures in parallel.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To align Eurodac with the new legal requirements by allowing the Member States to perform alphanumeric searches  Although not a primary objective, this change will also facilitate future interoperability efforts by enabling different types of searches	Eurodac updated to allow alphanumeric searches	Eurodac in line with the new legal provisions, enabling the Member States to perform alphanumeric searches and better exploit the data registered in Eurodac for law enforcement purposes	Adherence to the agreed project scope, budget and time	The project is delivered in the approved scope, budget and timeline	Periodical project progress reports and dashboards  Project documentation repository (project plan, decision log, exception reports)	AMMU

### 2.3.1.19. *Eurodac recast Phase 3 — implementation of face recognition in Eurodac (based on study outcomes)*<sup>106</sup>

#### MAIN ACTIONS OR TASKS

- ICD updates.
- Cooperation with the AG and the Member States in the framework of expert groups and the project management forum to coordinate the central and national projects' implementation and planning alignment.

<sup>106</sup> Subject to legislative amendments.

- Implementation of Eurodac component for face recognition (software and hardware/infrastructure changes).
- Testing and qualification of the new Eurodac release in PPE.
- Perform operational tests with the Member States and system acceptance testing before deployment to production.
- Provide final system acceptance.

**VALUE ADDED**

- The agency will fulfil its legal obligations and will provide Member States with a system working in accordance with their business needs.
- The system will be able to support face comparisons together with the fingerprint matching to provide better evidence to the Member States when fulfilling their asylum- or return-related tasks.
- Member States will be able to fulfil their obligations where fingerprinting is not a possibility, which currently lead to missed registrations and decreased security.

**MAIN CHALLENGES**

- Risk of not being able to accommodate such a big architectural change in the current Eurodac (will be shown by the study results).
- Rather substantial change to accommodate under the running MWO contract. Possible new procurement or significant amendment can lead to delays.
- The complexity and difficulty of aligning planning for core system and national system projects may introduce delays in testing and system readiness.
- Resource unavailability may negatively affect the project (additional FTEs need to be approved by the European Commission and new external support contract needs to be in place).
- Data centre space availability issues may seriously affect the implementation of the project (new infrastructure/rack space will be needed).
- Risk of non-availability of technical environments for testing, release deployment, etc., due to many parallel complex Eurodac projects.
- A possible decision on a common ABIS or drastic architectural changes would introduce major complexity and resource pressures in parallel.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To align Eurodac with the new legal requirements and to enable the Member States to better comply with the relevant EU policies by offering	Eurodac updated as a multimodal biometric system: face recognition component introduced to allow for face comparison	Eurodac in line with the new legal provisions and providing increased matching accuracy through multimodal biometric capabilities	Adherence to the agreed project scope, budget and time	The project is delivered in the approved scope, budget and timeline	Periodical project progress reports and dashboards  Project documentation repository (project plan, decision log, exception reports)	AMMU



### 2.3.1.20. *Change Eurodac communication model to web services*

**MAIN ACTIONS OR TASKS**

- ICD updates.
- Cooperation with the AG and the Member States in the framework of expert groups and the project management forum to coordinate the central and national projects' implementation and planning alignment.
- Implementation of new interface for Eurodac (with the option to retain both communication models for a transition period).
- Testing and qualification of the new Eurodac release in PPE.
- Perform operational tests with the Member States and system acceptance testing before deployment to production.
- Provide final system acceptance.

**VALUE ADDED**

The Agency will provide Member States with a technologically up-to-date communication mechanism enabling the efficient use of core functionalities as envisaged under the new legal framework (including, for example, alphanumeric searches). It will also act as a facilitator for future interoperability efforts, providing the necessary communication capabilities.

**MAIN CHALLENGES**

- The complexity and difficulty of aligning planning for core system and national system projects may introduce delays in testing and system readiness.
- There is technical complexity involved in retaining both communication models (old and new) for a transition period.
- Resource unavailability may negatively affect the project (many parallel Eurodac projects).
- There is a risk of non-availability of technical environments for testing, release deployment, etc., due to many parallel projects.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
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<p>Provide reliable and cost-effective solutions to stakeholders as per mandate</p>	<p>To align Eurodac with today's technological reality and enable the provision of up-to-date communication means to the Member States for fulfilling their role, given the extension of Eurodac scope and new transaction types (e.g. alphanumeric searches)</p>	<p>Eurodac updated to support communications with national systems through web services</p>	<p>The central Eurodac and the national systems are technologically aligned  The Member States are enabled to efficiently communicate with Eurodac and comply with the new legal requirements and new types of transactions</p>	<p>Adherence to the agreed project scope, budget and time</p>	<p>The project is delivered in the approved scope, budget and timeline</p>	<p>Periodical project progress reports and dashboards  Project documentation repository (project plan, decision log, exception reports)</p>	<p>AMMU</p>
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### 2.3.1.21. *Implementation of SIS II AFIS Phase 2*<sup>107</sup>

#### MAIN ACTIONS OR TASKS

- Validating the new fingerprint (including also latent) and palm print requirements together with Member States and Commission stemming from the new SIS legal framework.
- Updating the specifications of the SIS II AFIS system.
- Improving the architecture of the AFIS system delivered in Phase 1 to cope with the new requirements.
- Conduct internal and Member States integration test campaigns.
- Coordinate implementation at national system and central system levels.
- Regular communication and follow-up with Member States and other stakeholders.

#### VALUE ADDED

<sup>107</sup> OJ L 312, 7.12.2018, p. 1-106.

Strengthen the fight against terrorism and enforce law enforcement collaboration between Member States in the Schengen area.

**MAIN CHALLENGES**

- There will be a need to coordinate closely all the stakeholders at any stage of this project.
- The Member States will have to achieve the relevant milestone regarding ICD implementation in due time to enable testing operations, as this is a major step in delivering the project.
- The Member States will need to be ready for the target delivery date of the project.
- Any hardware/software changes and consistency issues will have to be dealt with on an individual basis. Therefore, those unknown issues could lead to additional delay.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To provide better response time on biometric searches  Increase the AFIS database capacity and throughput  Support additional biometric functions and provide additional levels of accuracy	This project will provide enhancement on the functionalities already set-up in Phase 1 of the SIS II AFIS	This project will provide additional biometric capabilities to the Member States	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and allocated timeframe	Project interim and final/closure reports	AMMU

*2.3.1.22. Implementation of the regulations on establishing a framework for*

## *interoperability between EU information systems<sup>108</sup>*

### MAIN ACTIONS OR TASKS

- Develop and implement a European search portal.
- Develop and implement a shared biometric matching service.
- Develop and implement a common identity repository (CIR).
- Develop multiple identity detector.
- Introduce and expand use of universal message format across all systems.
- Develop the central repository to enable statistical reporting and integrate it with the existing technical solution.
- Introduce automated data quality control mechanisms.

### VALUE ADDED

- Increased usability, enhanced access control and new capabilities for the systems.
- Improved total cost of ownership of the systems.
- Improved system search and identity management.

### MAIN CHALLENGES

- Late adoption of the legislation.
- Competing resources for multiple concurrent projects (EES, ECRIS-TCN, etc.).
- Interdependencies between different projects (EES, ETIAS).

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<sup>108</sup> Depending on the final adoption of the Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (police and judicial cooperation, asylum and migration) and the Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (borders and visa) and amending Council Decision 2004/512/EC, Regulation (EC) No 767/2008, Council Decision 2008/633/JHA, Regulation (EU) 2016/399 and Regulation (EU) 2017/2226 to address the necessity of interoperability of the systems.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To improve the efficiency and the effectiveness of the systems for the end-users and to improve the total cost of ownership	All deliverables required by the regulations for interoperability available for the stakeholders	Reduced total cost of ownership of the systems, better service for the stakeholders, increased usability, enhanced access control and new capabilities for the systems	Adherence to project scope, budget and time frame	Project delivered according to scope, budget and time frame	Project interim and closure reports	AMMU

### 2.3.1.23. *Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for SIS II*

#### MAIN ACTIONS OR TASKS

- Preparation of a service order for the MWO contractor (in 2018 with input from the Operations and Infrastructure Unit (OIU) and other relevant organisational entities).
- Negotiation on the timeline and cost of the impact assessment (in 2018).
- Execution of IA:
  - kick-off workshop;
  - workshops to collect information on individual initiatives in scope of the IA;
  - preparation of the draft IA report;
  - presentation of the draft IA report;
  - finalisation of the draft IA report;
  - acceptance of the IA report.
- Preparation of executive summary and presentation for the Management Board and advisory groups.

**VALUE ADDED**

Impact assessment will provide important information to the Agency, which will enable it to plan precisely implementation of these initiatives for SIS II. Furthermore, the Agency will be able to incorporate implementation of these initiatives in the roadmap for the evolution of SIS II. Last but not least, implementation of these initiatives will enable SIS II to meet the statutory availability target of 99.99%, will enable the Agency to use available human resources more efficiently through automation of statistical and data quality reporting and will improve further the efficiency of operational management of the system.

**MAIN CHALLENGES**

The major risks related to this project can be summarised as follows:

- There is a risk that the project will overlap with other already agreed projects because the request for it was made by COM very late within the planning cycle of the Agency.
- There is a risk that the allocated budget for SIS II will not be sufficient to finance this activity.
- There is a risk that the present MWO contractor will not be able to deliver this project on time and within budget.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Objective of the activity is to enable the Agency to implement these three initiatives for SIS II in a structured and comprehensive manner	Up-to-date knowledge concerning impact of these three initiatives on SIS II; improved ability of the Agency to plan precisely implementation of these initiatives for SIS II.	Ability of SIS II to meet the availability target of 99.99% as specified in the legal basis; reduced manual effort to produce standard statistical and data quality reports for SIS II; increased efficiency of	<ol style="list-style-type: none"> <li>1. Project delivered on time</li> <li>2. Project delivered within budget</li> <li>3. Quality of deliverables meet standard of the Agency</li> </ol>	<ol style="list-style-type: none"> <li>1. Project delivered no later than 31.10.2019</li> <li>2. Actual budget EUR ≤ 250 000</li> <li>3. No more than two review cycles per deliverable</li> </ol>	EPMO <sup>109</sup> project status reports	AMMU



### 2.3.1.24. *Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for VIS*

#### MAIN ACTIONS OR TASKS

- Preparation of a service order for the MWO contractor (in 2018 with input from OIU and other relevant organisational entities).
- Negotiation on the timeline and cost of the impact assessment (in 2018).
- Execution of IA:
  - kick-off workshop;
  - workshops to collect information on individual initiatives in scope of the IA;
  - preparation of the draft IA report;
  - presentation of the draft IA report;
  - finalisation of the draft IA report;
  - acceptance of the IA report.
- Preparation of executive summary and presentation for the Management Board and advisory groups.

#### VALUE ADDED

Impact assessment will provide important information to the Agency, which will enable it to plan precisely implementation of these initiatives for VIS. Furthermore, the Agency will be able to incorporate implementation of these initiatives in the roadmap for the evolution of VIS. Last but not least, implementation of these initiatives will enable VIS to meet the statutory availability target of 99.99%, will enable the Agency to use available human resources more efficiently through automation of statistical and data quality reporting and will improve further the efficiency of operational management of the system.

#### MAIN CHALLENGES:

The major risks related to this project can be summarised as follows:

- There is a risk that the project will overlap with other already agreed projects because the request for it was provided by COM very late within the planning cycle of the Agency.
- There is a risk that the allocated budget for VIS will not be sufficient to finance this activity.
- There is a risk that the present MWO contractor will not be able to deliver this project on time and within budget.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Objective of the activity is to enable the Agency to implement these three initiatives for VIS in a structured and comprehensive manner	Up-to-date knowledge concerning the impact of these three initiatives on VIS; improved ability of the Agency to plan precisely implementation of these initiatives for VIS	Ability of VIS to meet availability target of 99.99% as specified in the legal basis; reduced manual effort to produce standard statistical and data quality reports for Eurodac; increased efficiency of operational management of Eurodac	1. Project delivered on time 2. Project delivered within budget 3. Quality of deliverables meet standard of the Agency	1. Project delivered no later than 31.10.2019 2. Actual budget EUR ≤ 250 000 3. No more than two review cycles per deliverable	EPMO project status reports	AMMU

*2.3.1.25. Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for Eurodac*

**MAIN ACTIONS OR TASKS**

- Preparation of a service order for the MWO contractor (in 2018 with input from OIU and other relevant organisational entities).
- Negotiation on the timeline and cost of the impact assessment (in 2018).
- Execution of IA:

- kick-off workshop;
- workshops to collect information on individual initiatives in scope of the IA;
- preparation of the draft IA report;
- presentation of the draft IA report;
- finalisation of the draft IA report;
- acceptance of the IA report.
- Preparation of executive summary and presentation for the Management Board and advisory groups.

**VALUE ADDED**

Impact assessment will provide important information to the Agency, which will enable it to plan precisely implementation of these initiatives for Eurodac. Furthermore, Agency will be able to incorporate implementation of these initiatives in the roadmap for the evolution of Eurodac. Last but not least, implementation of these initiatives will enable Eurodac to meet statutory target for its availability, will enable the Agency to use available human resources more efficiently through automation of statistical and data quality reporting and will improve further the efficiency of operational management of the system.

**MAIN CHALLENGES**

The major risks related to this project can be summarised as follows:

- There is a risk that the project will overlap with other already agreed projects because the request for it was provided by COM very late within the planning cycle of the Agency.
- There is a risk that the allocated budget for Eurodac will not be sufficient to finance this activity.
- There is a risk that the present MWO contractor will not be able to deliver this project on time and within budget.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Objective of the activity is to enable the Agency to implement these three initiatives for Eurodac in a	Up-to-date knowledge concerning impact of these three initiatives on Eurodac; improved ability of the Agency to plan precisely	Ability of VIS to meet availability target as specified in the legal basis; reduced manual effort to produce standard statistical and	1. Project delivered on time 2. Project delivered within budget	1. Project delivered no later than 31.10.2019 2. Actual budget EUR ≤ 250 000	EPMO project status reports	AMMU



### *Operational management and evolution of the communication infrastructure*

#### *2.3.1.26. Unified wide area network perimeter — study and design<sup>110</sup>*

##### **MAIN ACTIONS OR TASKS**

The project will consist of the several phases:

- execution of the study (2019-2020) — collection of the requirements, identification of the most appropriate solution and outlining the high-level architecture;
- procurement of the design of the unified wide area network perimeter (2020);
- design (2020).

##### **VALUE ADDED**

- Detect and stop attacks that other security tools (e.g. firewall) cannot, reducing the overall risk the business systems are facing.
- Reducing the amount of suspicious network traffic reaching other security controls (e.g. firewalls), which lowers the workload for these controls and protects them from direct attacks.
- Faster switch-over/-back functionality between CU/BCU for the different business systems by integrating the network switch-over/-back into the application switch-over/-back procedures.

<sup>110</sup> Subject to the absence of need for legislative amendments.

- Reduction in cost of the switch-over/-back functionality in the TESTA-ng contract.
- Increased visibility on the Member States local national interface and backup local national interface availability.
- Limited number of networks.
- Faster and easier integration of the new core business systems.

**MAIN CHALLENGES**

- The complexity of the task of covering all core business systems, needs for high availability, upcoming systems, etc.
- Complex contractual situations (involvement of several different contractors).
- The availability of specific resources (e.g. human resources).

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Improve the way the core business systems are connected to the communication infrastructure, particularly with focus on security, scalability, flexibility, availability and throughput	Implemented unified wide area network perimeter providing standardised secured platform for the connection of the core business systems to the communication infrastructure	Core business systems and Member States receive a more reliable service from the communication infrastructure and related communication systems. It will allow faster and easier integration of the new core business systems	2019: - Presence of the study report  2020: - Signed contract for the design - Presence of the design documentation draft  2021: - Finalisation of the design documentation; roadmap for the implementation	All deliverables present in line with the project plan schedule	Project documentation	OIU

**2.3.1.27. Eurodac network bandwidth upgrade**

**MAIN ACTIONS OR TASKS**

- Assess the impact of the recast on the communication infrastructure on approval of the legal basis.
- Cooperation with third party providers and the Commission for the network upgrade as per the assessment results.
- Testing and qualification of the new solution.
- Provide final acceptance.

**VALUE ADDED**

The Agency will fulfil its legal obligations and will provide Member States with uninterrupted services in accordance with their business needs and the new legal basis.

**MAIN CHALLENGES**

- Time delays due to the need to align with overall network activities and planning (see, e.g., unified network study and outcomes).
- Human resource unavailability due to many parallel Eurodac projects using the same indirect resources may bring delays to the project implementation.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To align the Eurodac network bandwidth to the increased business load stemming from the recast Eurodac proposal	Eurodac network bandwidth increased to support the new Eurodac usage (recast transaction throughput)	The Eurodac communication infrastructure enables smooth and uninterrupted transaction flow as per SLA, allowing the Member States to fulfil their legal obligations	Adherence to the agreed project scope, budget and time	The project is delivered in the approved scope, budget and timeline	Periodical project progress reports and dashboards  Project documentation repository (project plan, decision log, exception reports)	AMMU

### 2.3.1.28. *Conducting a unified network test phase (continuation from 2018)*<sup>111</sup>

#### MAIN ACTIONS OR TASKS

This multi-annual project envisages the following stages:

- the study phase (2017), during which the current design was analysed and improvements to it proposed;
- the test phase (2017-2018), during which the proposed solution was tested in a lab/pre-production environment;
- project closing (2019).

#### VALUE ADDED

- Support to the decision-making process following the study.
- Provide information for possible changes to core business system regulations.
- Delivery of the vision/strategy of the communication infrastructure, which may support eu-LISA's position as an Agency providing much added value to its stakeholders.

#### MAIN CHALLENGES

The complexity of the task, given the number of relevant policies and business systems involved.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To have a clear vision on the necessary evolution of the communication infrastructure	Test phase conducted according to the proposal from the study carried out in 2017	Provide the management of the Agency with understanding of the possible improvements	Adherence to the agreed project scope, budget and time	The project is delivered in the approved scope, budget and timeline	Project interim and final reports	OIU

<sup>111</sup> The implementation of this activity depends on the outcomes of the impact assessment to be carried out in 2017 and might be subject to legal amendments.



### 2.3.1.29. *Introduction of advanced network statistics (continuation from 2018)*

#### MAIN ACTIONS OR TASKS

The general objective of the activity is to increase eu-LISA’s capabilities to supervise communication infrastructure and to coordinate network activities by selecting and implementing a commercial off-the-shelf solution measuring the real performance of the communication infrastructure up to the level of IP flows. The solution will also allow proactive identification and elimination of bottlenecks and faster issue and problem troubleshooting in communication infrastructure. This project envisages three stages:

- The study phase (2017-2018) should analyse eu-LISA’s needs in detail and should propose a solution to address these needs.
- The test phase (2018) should be used to validate the proposed solution in limited scale on one part of the communication infrastructure.
- The implementation stage (2019) should cover the rollout of the validated solution in the whole communication infrastructure.

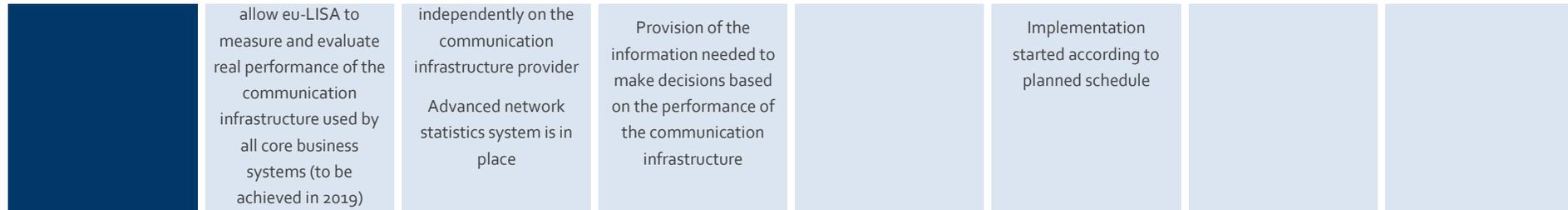
#### VALUE ADDED

- Fulfilment to a greater extent of eu-LISA’s legal obligations in the form of efficient supervision of the communication infrastructure.
- Smoother operation of the communication infrastructure and the core business systems that depend on it.
- More effective set-up of the communication infrastructure and better alignment of the communication infrastructure services provided with the needs of large-scale IT systems.

#### MAIN CHALLENGES

- The implementation of the solution and the collection of the statistics needs to be done in line with the applicable policies, particularly in the area of data protection.
- The project is complex due to the number of business systems involved and the complex legal situation.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Ensure implementation of the advanced network statistics system (first part) to	Communication infrastructure supervision through the data collected	Increased efficiency of the communication infrastructure supervision	Delivery date of the test phase Start date of the implementation	Test phase conducted in due time and the recommended solution validated	Project interim and final reports	OIU



### 2.3.1.30. *Handover of the activities related to implementation of the budget, acquisition, renewal and contractual matters of the VIS and SIS II communication infrastructure*<sup>112</sup>

#### MAIN ACTIONS OR TASKS

Handover of Commission activities/responsibilities related of the budget, acquisition, renewal and contractual matters of the communication infrastructure; in particular:

- VIS WAN and related services;
- SIS II WAN and related services;
- VIS mail;
- Sirenemail;
- VIS single point of contact mail;
- SIS II single point of contact mail;
- VIS second encryption layer;
- SIS II second encryption layer.

<sup>112</sup> Implementation will depend on the adoption of the relevant legal basis.

Establishment of the necessary processes and procedures on eu-LISA's side for the execution of the activities handed over.

**VALUE ADDED**

It is no longer justified for the Commission to retain certain tasks related to the communication infrastructure or the systems and therefore these tasks should be transferred to the Agency to improve the coherence of its management.

**MAIN CHALLENGES**

The project faces the following challenges:

- Limited timeline for the VIS handover: according to the EES Regulation proposal, the handover must be done in a fixed period of 6 months.
- Unknown start date: the start of the VIS handover depends on the entry into force of the EES Regulation, while the start date of the SIS handover depends on the adoption of the revised eu-LISA establishing regulation.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	To ensure that the Agency possesses the ability to perform contract management for the communications infrastructure	Organisational structure, roles and responsibilities in place to perform the contract management of communication infrastructure.  DG HOME providing the required handover information	Handover report from DG HOME  Description of roles and responsibilities, organigram in relation to contractual management of communication infrastructure	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Project interim and final reports	OIU

*2.3.1.31. TESTA-ng VIS second encryption layer implementation (continuation from 2018)*

**MAIN ACTIONS OR TASKS**

This activity is part of the TESTA-ng migration project. The project started in 2013 and will continue in 2019. It will cover completion of the second encryption layer implementation in the VIS production network.

**VALUE ADDED**

Second encryption layer in VIS is needed to guarantee the protection of VIS business data according to the VIS and eu-LISA regulations.

**MAIN CHALLENGES**

- Number of stakeholders involved.
- Implementation in the live production environment.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions to stakeholders as per mandate	Implementation of the second encryption layer in TESTA-ng VIS production network based on the successful pilot	TESTA-ng VIS second encryption layer present and encrypting VIS business traffic according to the eu-LISA and VIS regulations  VIS and SIS II Mail systems support arranged	Second encryption layer is implemented in TESTA-ng VIS network  VIS and SIS II Mail services support is arranged and transferred from sTESTA provider	Delivery date of the second encryption layer in VIS Production networks	VIS second encryption layer present in due time and protecting VIS business traffic	Project interim and final reports	OIU

*Development and operational management of new systems*

**2.3.1.32. Dublin automation system**

**MAIN ACTIONS OR TASKS**

- Creation of the ICD for the new system in cooperation with the Member States.
- Cooperation with the AG and the Member States in the framework of expert groups and the project management forum to coordinate the central and national projects' implementation and planning alignment.
- Development of the new system based on the final provisions of the legal framework under negotiation and on the outcomes of the study conducted by the European Commission.
- Configuration of the needed infrastructure.
- Testing and qualification of the new system in PPE;
- Perform operational tests with the Member States and system acceptance testing before deployment to production;
- Provide final system acceptance;
- Evaluate the system's function as per legal basis to propose improvements.

**VALUE ADDED**

The Agency will fulfil its legal obligations and will provide Member States with a tool enabling them to align with the Dublin IV proposal.

**MAIN CHALLENGES**

- Delays to the procurement processes (previous years) may bring delays to the overall implementation.
- The complexity and difficulty of aligning planning for core system and national system projects.
- Possible conflicting views for implementation (core system-national system) may introduce delays.
- Data centre space availability issues may seriously affect the project (new environments/racks will be needed).
- Resource unavailability may negatively affect the project.
- Duplication of effort with Eurodac developments, despite the interrelated goals.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to stakeholders	To align with the requirements set in the Dublin IV proposal	Finalisation of the implementation of a new Dublin automation system to support the	New system in place in line with the new legal provisions, allowing the Member States to implement the	Adherence to the agreed project scope, budget and time	The project is delivered in the approved scope, budget and timeline	Periodical project progress reports and dashboards Project documentation repository (project	AMMU



implementation of the  
new Dublin IV proposal

European asylum  
policies

plan, decision log,  
exception reports)

### 2.3.1.33. *EES implementation*

#### MAIN ACTIONS OR TASKS

On 6 April 2016, the European Commission submitted a revised proposal for a Smart Borders regulation. It includes a proposal for a regulation establishing an Entry/Exit System as well as a proposal for revising the Schengen Borders Code. The proposal was adopted by the European Parliament on 25 October 2017 and by the Council on 20 November 2017. It entered in to force on 29 December 2017.

The implementation of the new system will include the set-up of:

- a new EES central system;
- a biometric information system;
- a national uniform interface;
- the communication infrastructure;
- a web service for travellers and carriers;
- a central data repository.

Additionally, the technical evolution of VIS and SIS II could be part of the implementation package.

#### VALUE ADDED

The project aims at implementing the core business systems, with requirements stemming from European Commission Proposal 2016/194 for a Regulation of the European Parliament and of the Council establishing an Entry/Exit System (EES) amending Regulation (EC) No 767/2008, and amending Regulation (EU) No 1077/2011.

The establishment of an EU Entry/Exit System is considered necessary to address the following challenges:

- addressing border check delays and improving the quality of border checks for third-country nationals;
- ensuring systematic and reliable identification of 'overstayers';

- reinforcing internal security and the fight against terrorism and serious crime.

**MAIN CHALLENGES**

Assuming that the legal basis will enter into force in 2017, in 2018 the project will be between the end of procurement and the development start-up phase. During 2019, an external contractor will be responsible for the development of the central system, which will be carried out in synchronicity with the implementation of national systems, under eu-LISA coordination.

A critical success factor for quality and timely delivery will be the establishment of a project management forum for national project managers, chaired by eu-LISA, to anticipate and mitigate risks, promptly manage common issues and foster communication between projects.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to stakeholders	Design and implementation of the central system, communication infrastructure and national uniform infrastructure  Interoperability with other central systems	EES central system entry into operation within legal deadline	Supporting the Member States in achieving smarter and more secure border management	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Weekly project dashboards and end of project report	AMMU

*2.3.1.34. Implementation of the European Travel Information and Authorisation System*

## (ETIAS)<sup>113</sup>

### MAIN ACTIONS OR TASKS

- Preparation, publication and management of the call for tender for the development and operations start-up of ETIAS.
- Definition of end-to-end high-level and detailed designs.
- Implementation of impact assessment(s) to evaluate the impact of ETIAS on the existing systems and the systems under development.
- Definition and implementation of ETIAS security policy.
- Set-up of technical infrastructure.
- Technical and functional implementation.
- End-to-end functional, technical and security qualification.
- Definition, set-up and testing of the business processes and procedures with the stakeholders (Member States, Frontex, carriers).
- Definition, set-up and testing of the legal/operational reports.
- Set-up and testing of the operational processes, procedures and supporting tools.
- Preparation and handover to the Operations Department.

### VALUE ADDED

The Agency will fulfil its legal obligations and will provide Member States with a system working in accordance with their business needs.

### MAIN CHALLENGES

- Member States may request to phase the development of EES and ETIAS, instead of taking a parallel approach.
- A number of ETIAS components are expected to be shared with EES. The introduction of dependencies between such large projects could introduce unexpected delays.
- The intended year for entry into operation is considered very challenging, perhaps unmanageable.
- The amount of human resources planned to be involved in the project could be insufficient.

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<sup>113</sup> Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS).

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to stakeholders	<p>Design, implementation and qualification of the central system and communication infrastructure</p> <p>Adaptation of security environment and measures to comply with new types of services</p> <p>Interoperability with other central systems</p> <p>Operations preparations</p>	ETIAS entry into operation within legal deadline	ETIAS is developed according to the relevant regulation to provide Member States with a new system to assess the risk prior to entrance into the Schengen area of visa-exempt third-country nationals	Adherence to the required project scope, budget and time	ETIAS is developed and rolled out according to the time, budget and scope boundaries	Project dashboard, intermediate progress follow-up reports, end project report	AMMU

### 2.3.1.35. *ECRIS-TCN implementation (depending on the adoption of the relevant legal basis)*

#### MAIN ACTIONS OR TASKS

On 29 June 2016, the European Commission submitted a proposal for an ECRIS-TCN regulation. It includes a proposal for a regulation establishing an ECRIS-TCN central system to be operational by 2020. eu-LISA will start the procurement activities for the implementation of the new system as soon as the legal basis is approved. The development of the system will consist of the elaboration and implementation of the technical specifications, testing and overall project coordination.

#### VALUE ADDED

This centralised system will allow the Member State's authorities to identify which other Member States hold criminal records on the TCN concerned, so that they can then use

the existing ECRIS system to address requests for conviction information to these Member States only.

### MAIN CHALLENGES

The implementation of the project strongly depends on the timely adoption of the legislation and the provision of the necessary resources.

Assuming that the legal basis will enter into force in 2017, in 2018 the project stage will be between the end of procurement and the development start-up phase. During 2019, an external contractor will be responsible for the development of the central system, which will be carried out in synchronicity with the implementation of national systems, under eu-LISA coordination. A critical success factor for quality and timely delivery will be the establishment of a project management forum for national project managers, chaired by eu-LISA, to anticipate and mitigate risks, promptly manage common issues and foster communication between projects.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to stakeholders	Design and implementation of the central system, communication infrastructure, national uniform infrastructure, and interoperability with other central systems	ECRIS-TCN central system entry into operation within legal deadline	Supporting the Member States in achieving smarter and more secure border management	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe	Weekly project dashboards and end of project report	AMMU

### 2.3.1.36. *Central repository for reporting and statistics implementation to improve automated reporting and statistics generation Phase 2 — unification of the reporting of all our systems (continuation from 2017)*

#### MAIN ACTIONS OR TASKS

- A repository where all the technical reports that the Agency produces to monitor the proper functioning of the systems, reports the applications (SIS II, Eurodac and

VIS) produce and statistics will be managed, along with the appropriate means to get, in accordance with the applicable legal basis, access to the relevant information needed by the stakeholders. The reports and statistics central repository stores large amounts of historical data so that it is possible to analyse different time periods and trends to make future predictions, where authorised by the relevant legal bases.

- A set of tools to carry out changes easily (i.e. with the fewest possible or no resources) and adapt when new stakeholder needs arise in relation to the information managed by eu-LISA and in particular in relation to the application management with which eu-LISA is entrusted. Those tools will have the potential to be used directly by end-users by means of a simple graphical interface.
- Improving reporting as a service to fulfil the legal obligations of the Agency.

**VALUE ADDED**

The activity will result in improved automated reporting and statistics generation that is aligned with the needs of the designated stakeholders — Member States, the Commission, eu-LISA, entitled authorities such as the European Data Protection Supervisor (EDPS) and relevant JHA agencies — in the area of the applications managed by eu-LISA (SIS II, VIS/BMS, Eurodac), in accordance with the relevant legal bases. In addition, since the stakeholders can quickly access critical data from a number of sources in one single place, they can rapidly make informed decisions on key initiatives. Furthermore, since data from the various systems are standardised, stakeholders can have more confidence in the accuracy of the data.

**MAIN CHALLENGES**

- Owing to legal constraints to access the application data, today a significant response time is necessary for the design and production of new reports. An ad hoc response has also to be considered should those reports have to be produced on a regular basis.
- Security constraint.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Increase the added value of the data and technology to the Member States	To put in operation the solution with the necessary transition support activities. To have all the reports	Infrastructure, reports and statistics central repository in operation. eu-LISA core applications reports	The Member States, Commission and management of eu-LISA and teams of eu-LISA having more	Adherence to the required project scope, budget and time	The project is delivered in the agreed scope, budget and timeframe  To have 100% of the existing reports	Project documentation — reports on an ad hoc progress status	AMMU

	<p>generated using this unified solution</p> <p>Reporting as a service</p>	<p>generated automatically. All the reports produced centrally or remotely from systems/operated by eu-LISA</p>	<p>information on the use and functioning of the application through an easy interface. Efficient solution for developing quickly new reporting solutions</p>	<ul style="list-style-type: none"> <li>-Amount of existing reports transposed in this solution</li> <li>-Amount of reports produced</li> <li>-Time to implement new reports</li> <li>-Use of the remote capability to produce reports</li> </ul>	<p>transposed within the time of entry of operation</p> <p>To have a minimum 5% increase in the number of reports produced with the tools</p> <p>To have between a 1-day and 2-months response time to implement a new report depending on the complexity of the report</p> <p>To have at least 60% of stakeholders (Member States, European Commission, eu-LISA) trained on the remote function facilities to produce reports</p>	<p>Logs of the central report and statistics repository</p>	
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*Security and business continuity*

**2.3.1.37. Implementation of the common shared security infrastructure Phase 3 — identity and access management for the core business systems**

**MAIN ACTIONS OR TASKS**

Developing and implementing an identity and access management solution requires a comprehensive roadmap, architecture and technology platform. The main functional elements to be developed in this project include the following:

- Provisioning engine: capable of creating, changing and removing personal accounts and access rights in directories and all technologies (Unix systems, Windows systems, etc.), which are not directory integrated.
- This engine allows the creation of new accesses in an automated manner (for example new joiners), reducing the time required to be operational. On the other hand, it provides the advantage of being able to revoke accesses in a fast and efficient way (for example if someone leaves the organisation).
- Password synchronisation engine to ensure one account and one password can be used across all systems, whether or not they are directory integrated.
- Workflow engine allowing the inclusion of the necessary validators before technically taking actions.
- Identity audit service identifying who has been provided which access at which time to which resource.
- Account reconciliation providing a view on who has access to which resource from an identity and access management point of view.
- Entitlement engine providing a view on the difference between the access rights as configured on the target platforms and those as defined in a reference repository.
- Self-service: users can themselves request, with a secondary channel (mail usually), a reset of their password (their account will typically be reduced to what they are entitled to manage) and access to a resource (subject to validation).
- Delegated administration: a third party can manage their own domain under a predefined set of rules (a set of domains, a set of access rights, etc.).

In terms of high-level project tracks, the following activities are expected to be performed:

- completion of statement of work and specification to be submitted to the CSI contractor;
- acceptance of the offer and completion of the specific contract (as part of the CSI contract);
- definition of the business, security, operational and legal requirements for identity and access management (identity lifecycle management, access management, governance, etc.);
- perform a gap assessment of the current identity and access management landscape and capabilities;
- define the to-be architecture and product selection;
- design, build and deploy the identity and access management components and services (access governance, user management, auditing and logging);
- process workflow implementation;
- perform system and user acceptance testing;
- provide training to administrators and users.

#### VALUE ADDED

- Improved effectiveness in the management and control of user access.

- Reduction of time and effort spent on manually managing and provisioning user accounts.
- Increased visibility in user access activities for security monitoring and audit purposes.

**MAIN CHALLENGES**

- The business needs must drive the programme and lead the technology, not vice versa.
- The complexity of integrating the identity and access management components with the current technology components.
- Identity and access management projects can be complex; a big bang approach is difficult to control. The ‘identity explosion’ — the multiplication of user identities requiring management — has to be considered from the outset.
- People have different understandings of how identity and access management functions due to their differing roles in the business or previous experiences with technology. There will therefore be many different views on how and when to deploy. With conflicting views of what identity and access management should involve, projects can quickly become politicised, dividing business and technical teams, creating in-fighting and disillusionment.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Strengthen information security capabilities related to the systems entrusted to the Agency	Implementation of an identity and access management service for the core business system and automated workflows for ITSM access management processes in accordance with the technology strategy	Implementation of an identity and access management service to automate the access management of Agency users to the core business system using workflows for ITSM access management processes	Improved user management in accordance with the standards of European Commission information security standards on user access management	Successful completion of the user acceptance test in accordance with the defined test cases	90%	User Acceptance Test Report	SEC

**2.3.1.38. Security and business continuity exercise for Eurodac**

**MAIN ACTIONS OR TASKS**

- Prepare the exercise with the participants.
- Run the exercise.

- Assess the outcomes of the exercise and report them to the AGs and the MB.

**VALUE ADDED**

An adequate level of assurance that the business continuity and security controls in place for the large-scale IT systems under eu-LISA’s management are efficient and effective.

**MAIN CHALLENGES**

- Commitment of sponsors might not remain the same throughout the lifecycle of the exercise project.
- Availability of the key personnel for requirements from both eu-LISA and EU Member States for all the phases of the exercise project as needed (key personnel may be unavailable owing to their involvement in other activities and projects).
- Availability of the specific web platform for implementing the project exercise.
- Technical complexity of the exercise.

Strategic objective	Objective of the activity	Outputs from the activity	Outcome of the activity	Performance indicator	Target	Sources of verification	Unit
Strengthen information security capabilities related to the systems entrusted to the Agency	The tests for business continuity and security of the large-scale IT systems under eu-LISA’s management are performed as needed	Identify the gaps in processes, resources and procedures in place and present recommendations to improve the existing levels of business continuity and security for the large-scale IT systems under eu-LISA’s management	The Agency ensures that the business continuity and security controls in place comply with the risk assessment results, business continuity and disaster recovery plans and security plans	The goals and objectives of the exercise should be achieved	All the goals and objectives of the exercise are achieved at 100%	Interim and final reports of the project	SEC

**2.3.2. Activities within the scope of Strategic Goal 2**

*Not applicable. No operational projects for Strategic Goal 2 are envisaged for 2019.*

### **2.3.3. *Activities within the scope of Strategic Goal 3***

*Not applicable. No operational projects for Strategic Goal 3 are envisaged for 2019.*

### **2.3.4. *Activities within the scope of Strategic Goal 4***

*Not applicable. No operational projects for Strategic Goal 4 are envisaged for 2019.*

## Annexes

### Annex I: Resource allocation per activity 2019-2021<sup>114</sup>

Type of activity	Title of annual activity	Type of direct FTEs	Direct FTEs	Budget <sup>115</sup> 2019 (EUR)	PD reference number	Justification for the budget for the activity	Budget 2020 (EUR)	Budget 2021 (EUR)	Start date	Delivery date
Activities subject to adoption of new legal basis	Eurodac recast Phase 1 — updates as per recast proposal: search-storage of CAT1,2,3, new biographical/biometric data, capacity upgrade, face recognition study		pm <sup>116</sup>	5,550,000	2.3.1.13	In 2015, the EU has faced a number of serious challenges in the area of justice and home affairs and particularly in the field of asylum and migration, following the refugee crisis. The proposed reform of the Dublin Regulation introduced substantive changes to the way in which a Member State determines the Member State responsible for examining an asylum claim. To ensure that the EU has the right tools at its disposal for implementing these changes, amendments to the Eurodac Regulation were deemed necessary to accompany the Dublin IV proposal, which was brought			1.1.2018	1.1.2022

<sup>114</sup> The administration and support activities are set out in this table in more detail than in the previous section to provide a better view of the resources needed. The FTEs shown are only the FTEs that the Agency currently has. On top of these, the additional FTEs that the Agency will receive after the adoption of the relevant legislation will also be used. For this reason, some activities have 0 FTEs, which means that these will be covered only by the additional FTEs.

<sup>115</sup> The table contains only expenditure under Title 3. Therefore, if an activity has no budget, it means that it will use only HR and no financial resources, or that the financial resources will be under Title 2, or, for multi-annual projects, the commitment appropriations will be made in preceding years.

<sup>116</sup> Pour memoire

						<p>forward by the European Commission in 2016. The Eurodac recast responds also to questions that have been raised about whether or not the Eurodac database should be extended or supplemented to serve other important needs in the field of migration such as return purposes. The Commission's proposal introduced changes to the Eurodac central system that will store and compare more personal (biographical) and more biometric data (facial image together with fingerprints) at EU level to better support the asylum purposes and to enable Member States' authorities in charge of enforcing returns to better track and establish the identity of irregular migrants to ensure their effective return. The new proposal is substantially enhancing the 'visibility' of irregular migrants in the EU by allowing any-to-any comparison of data and storing fingerprint data under all categories in Eurodac. Apart from the Eurodac central system changes to comply with the new legal framework, this project tackles also the needed capacity upgrade of the system to sustain the increased load due to the new usage. Budget necessary to continue the Eurodac recast project, initiated since the previous year (the budget indicated for 2019</p>			
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						is based on the annual budget split in the legal proposal). The budgetary provisions in the recast proposal have been based on an impact assessment conducted by eu-LISA and submitted to the Commission as input for drafting the legal proposal. The budget includes the costs of the functional changes (SW updates and configuration changes) as well as the addition and configuration of new infrastructure needed to properly size the system for the new use				
Activities subject to adoption of new legal basis	Eurodac recast Phase 2.1 — inclusion of passport copies and other (ID) documents to Eurodac		pm	pm	2.3.1.16	The reform of the Dublin Regulation will introduce substantive changes to the way in which a Member State determines the Member State responsible for examining an asylum claim. To ensure that the EU has the right tools at its disposal for implementing these changes, amendments to the Eurodac Regulation were deemed necessary to accompany the Dublin IV proposal, which was brought forward by the European Commission in 2016. In 2015, the EU has faced a number of serious challenges in the area of justice and home affairs and particularly in the field of asylum and migration, following the refugee crisis. Questions have been raised about whether or not the Eurodac database should be extended or supplemented to serve other			1.1.2018	1.1.2022

						<p>important needs in the field of migration such as return purposes. In a nutshell, the Commission’s proposal introduces changes to the Eurodac central system that will store and compare more personal (biographical) and more biometric data (facial image together with fingerprints) at EU level to better support the asylum purposes and to enable Member States’ authorities in charge of enforcing returns to establish the identity of migrants to ensure their effective return. On top of this, the new proposal is substantially enhancing the ‘visibility’ of irregular migrants in the EU by allowing any-to-any comparison of data and storing fingerprint data under all categories in Eurodac.</p> <p>During the ongoing negotiations for the Eurodac recast proposal, a number of new items were introduced by the Member States. Among them, the idea of storing and retrieving colour copies of passports and other ID documents to Eurodac. To support the ongoing negotiations and to decide if this item will be included in the recast proposal, eu-LISA was asked to perform an impact assessment (attached to this business case). It is to be noted that the initial recast proposal presented by COM, and which included the necessary budgetary provisions, did not take this item and budgetary impact</p>				
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						into account. This project will be implemented if the inclusion of passport copies will finally become part of the Eurodac recast (and on approval of the recast). eu-LISA has performed an impact assessment that justifies the budget required (EUR 500,000) in detail. An additional EUR 500,000 will be necessary for external support				
Activities subject to adoption of new legal basis	Eurodac recast Phase 2.2 — managing resettlements in Eurodac		pm	pm	2.3.1.17	There are no actual budget estimates. The estimates will be established as part of the study on facial recognition to be implemented during 2018, as set out in the legal framework. It is to be noted that the Eurodac recast proposal does not include any budgetary estimates for face recognition for this reason. For the external support, 0.5 FTEs Solution Architect and 0.5 FTEs Senior Project Manager will be necessary			1.1.2018	1.1.2022
Activities subject to adoption of new legal basis	Eurodac recast Phase 2.3 — alphanumeric searches to Eurodac		pm	pm	2.3.1.18	There are no actual budget estimates. The estimates will be established as part of the study on facial recognition to be implemented during 2018, as set out in the legal framework. It is to be noted that the Eurodac recast proposal does not include any budgetary estimates for face recognition for this reason. For the external support, 0.5 FTEs Solution Architect and 0.5 FTEs Senior Project Manager will be necessary			1.1.2018	1.1.2022
Activities subject to	Eurodac recast Phase 3 — implementation of		pm	pm	2.3.1.19	There are no actual budget estimates. The estimates will be			1.1.2019	1.7.2021

adoption of new legal basis	face recognition in Eurodac (based on study outcomes)					established as part of the study on facial recognition to be implemented during 2018, as set out in the legal framework. It is to be noted that the Eurodac recast proposal does not include any budgetary estimates for face recognition for this reason. For the external support, 0.5 FTEs Solution Architect and 0.5 FTEs Senior Project Manager will be necessary				
Activities subject to adoption of new legal basis	Dublin automation system	Application Administrator Application Manager/Head of Sector IT Specialist	0.70	135,000	2.3.1.32	Budget estimated for the implementation of the new system, based on the initial assessment done by eu-LISA and as included in the legal proposal. The indicated budget is for 2019 only and is based on the annual split of the budget in the legal proposal	735,000	735,000	1.9.2017	31.12.2019
Activities subject to adoption of new legal basis	DubliNet maintenance	IT Specialist Application Administrator Application Manager/Head of Sector Test Engineer	0.20	50,000	2.2.1.4	Budget to cover corrective maintenance and provision of support to the Member States as well as urgent technical/operational changes	50,000	50,000	1.1.2019	31.12.2019
Activities subject to adoption of new legal basis	Regular operational management of the communication infrastructure contracts (budget execution, acquisition, renewal and contract management)		pm	19,221,000	2.2.1.12	N/A				
Activities subject to adoption of new legal basis	Handover of the activities related to implementation of the budget, acquisition,	Network Administrator	0.39	pm	2.3.1.30	N/A				

	renewal and contractual matters of the VIS and SIS II communication infrastructure									
Administration and support expenditure	Drafting technical reports and aggregating statistics	Administrator for Reporting and Statistics	0.90		2.1.1	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Perform the annual data protection survey	Data Protection Officer	0.05		2.1.4	N/A			1.4.2019	30.9.2019
Administration and support expenditure	Increasing data protection awareness	Data Protection Officer	0.35		2.1.4	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Drafting the annual Work Report 2018 and reporting the intermediate status of DP compliance to MB	Data Protection Officer	0.40		2.1.4	N/A			1.1.2019	15.2.2019
Administration and support expenditure	Transposition of the new regulation repealing the Regulation 45/2001	Data Protection Officer	0.05		2.1.4	N/A			1.6.2018	30.9.2019
Administration and support expenditure	Contribution as an observer to Schengen evaluations in the fields of SIS/SIRENE and common visa policy and ensure better use of SIS II and VIS by Member States	Policy Officer	0.10	50,000	2.1.1	Participation of eu-LISA staff members in Schengen evaluations missions in the fields of SIS/SIRENE and common visa policy	55,000	55,000	1.1.2019	31.12.2019
Administration and support expenditure	Corporate applications enhancement	IT Infrastructure Officer Enterprise Architecture Officer/Head of Sector	1.00		2.1.5	N/A			3.1.2019	23.12.2019

Administration and support expenditure	Maintenance and evolution of corporate network architecture	Administrative Assistant	1.00		2.1.5	N/A			3.1.2019	15.12.2019
Administration and support expenditure	Maintenance and evolution of corporate system and storage architecture	IT Infrastructure Officer IT Assistant	1.50		2.1.5	N/A			3.1.2019	23.12.2019
Administration and support expenditure	Long-term archive preservation strategy of the Agency	Document Management Assistant	1.00		2.1.5	N/A			3.1.2019	23.12.2019
Administration and support expenditure	Website hosting and evolution	IT Assistant	0.20		2.1.5	N/A			1.2.2019	1.4.2019
Administration and support expenditure	Facility operations to enable full and effective use of the new HQ building in Tallinn	Facility Officer	0.80		2.1.5	N/A			3.1.2019	23.12.2019
Administration and support expenditure	Implementation of logistics and supplies services in the new HQ	Building and Infrastructure Assistant	0.00		2.1.5	N/A			3.1.2019	23.12.2019
Administration and support expenditure	Mission portfolio and creation of an internal mission guide	Administrative Assistant	0.05	37,000	2.1.5	Missions guide and procedures of the effective IT support flow	37,000	37,000	3.1.2019	23.12.2019
Administration and support expenditure	Evolution of eu-LISA e-learning environments	Enterprise Architecture Officer/Head of Sector	0.10		2.1.5	N/A			3.1.2019	23.12.2019
Administration and support expenditure	Further development of enterprise architecture	Enterprise Architecture Officer/Head of Sector	0.20		2.1.5	N/A			16.2.2019	23.12.2019
Administration and support expenditure	Development of the HR IT tools and their implementation	Human Resources Officer HR Assistant HR Administrative Assistant	1.00		2.1.3	N/A			1.1.2019	31.12.2019

Administration and support expenditure	Optimisation and sound management of human resources in terms of organisational structure, processes and practices in compliance with the relevant rules and decisions	HR Administrative Assistant HR Assistant HR Assistant/Recruitment Assistant Human Resources Officer Learning and Development Officer Staff Development Officer	4.15		2.1.3	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Training for eu-LISA staff related to operations (technical training for staff)	Learning and Development Officer	0.50		2.1.3	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Implementation of the activity-based management model	Budget Officer/Head of Sector Financial Assistant	1.00		2.1.2	N/A			1.1.2017	31.12.2020
Administration and support expenditure	Execution of the Procurement and Acquisition Plan	Procurement Officer/Head of Sector Procurement Officer	4.90		2.1.2	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Internal control, procedures and audits related to finances and procurement	Budget Officer/Head of Sector Procurement Officer/Head of Sector	0.40		2.1.2	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Timely delivery of services related to budgetary, procurement and financial management	Asset Management Assistant Financial Officer Budget Officer/Head of Sector Financial Assistant Payroll Assistant Financial Assistant	8.15		2.1.2	N/A			1.1.2019	31.12.2019

Administration and support expenditure	Extension of the operational premises to host current and future projects	Building and Infrastructure Officer	0.70	pm <sup>117</sup>	2.1.5	N/A			1.5.2017	1.10.2021
Administration and support expenditure	Maintenance activities of all equipment and assets in the operational site	Building and Infrastructure Officer	1.00		2.1.5	N/A			1.1.2019	1.1.2019
Administration and support expenditure	Implementation of eu-LISA Internal Communication Action Plan	Communication and Information Officer/Head of Sector	0.30		2.1.1	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Implementation of the annual External Communication and Information Action Plan	Communications and Information Assistant Communication and Information Officer/Head of Sector	1.50		2.1.1	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Planning and reporting	Strategy Planning Officer	0.90		2.1.1	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Initiate and contribute to the development of a management corporate information and management system (CIMS)	Corporate Governance and Risk Management Office/Head of Sector	0.20		2.1.1	N/A			1.1.2019	31.12.2020
Administration and support expenditure	Providing governance and compliance management capabilities	Corporate Governance and Risk Management Officer/Head of Sector	0.70		2.1.1	N/A			1.1.2019	31.12.2019

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According to eu-LISA's estimates the financial resources for this building project are EUR 2,500,000 for 2019, EUR 4,250,000 for 2020, EUR 6,750,000 for 2021 and EUR 10,750,000 for 2022.

Administration and support expenditure	Providing legal advice to eu-LISA	Legal Officer	0.90		2.1.5	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Timely administrative support for the Management Board	Management Board Assistant Management Board Officer	0.75		2.1.1	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Implementation of the annual internal audit plan	Internal Auditor	0.85	133,000	2.1.7	Three IT audits	133,000	133,000	6.1.2019	20.12.2019
Administration and support expenditure	Maintaining the accounts of the Agency	Accounting Officer	0.85		2.1.2	N/A			1.1.2019	31.12.2019
Administration and support expenditure	Stakeholder engagement and policy coordination	Policy SNE Policy Officer/Head of Sector Policy Officer Liaison Officer	4.25		2.1.1	N/A			1.1.2019	31.12.2019
Entry/Exit System	EES implementation	Project Manager IT Architect Test Manager Application Administrator	9.00	144,326,000	2.3.1.33	Regulation (EU) 2017/2226 of the European Parliament and of the Council of 30 November 2017 establishing an Entry/Exit System (EES) to register entry and exit data and refusal of entry data of third country nationals crossing the external borders of the Member States of the European Union and determining the conditions for access to the EES for law enforcement purposes and amending Regulations (EC) No 767/2008 and (EU) No 1077/2011	21,606,000	42,800,000	1.11.2017	1.7.2021
ETIAS	Implementation of the European Travel Information and Authorisation System (ETIAS)	Customer Relationship Officer Application Manager/Head of Sector Test Manager/TST	0.95	11,023,000	2.3.1.34	Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS) and amending	55,800,000	18,554,000	9.10.2018	31.12.2022

		Team Coordinator/Head of Sector Technical Release Coordinator/Head of Sector Project Manager IT Specialist Quality Assurance Test Engineer Project Support Contract Manager Application Administrator				Regulations (EU) No 515/2014, (EU) 2016/399, (EU) 2016/794 and (EU) 2016/1624				
ECRIS	ECRIS-TCN implementation (depending on the adoption of the relevant legal basis)	Project Manager System Engineer Application Expert (2) Software Quality Engineer	0.00	3,766,000	2.3.1.35	Proposal for a Regulation of the European Parliament and of the Council establishing a centralised system for the identification of Member States holding conviction information on third country nationals and stateless persons (TCN) to supplement and support the European Criminal Records Information System (ECRIS-TCN) and amending Regulation (EU) No 1077/2011	3,766,000	3,776,000	1.9.2018	31.12.2021 (depending on the adoption of the legal basis)
Evolution of Eurodac	Change Eurodac communication model to web services	Application Administrator Application Manager/Head of Sector IT Specialist Test Engineer	0.50	1,325,000	2.3.1.20	The current Eurodac communication model (email based) was designed as part of the initial architecture of Eurodac that entered into operation in 2003. Although this communication mechanism is now considered technologically outdated, it has proven to be stable over the years. eu-LISA and the Member States have considered since 2015 the possibility of switching to an up-to-			1.1.2018	31.12.2019

						<p>date interface solution (web services); however, the migration crisis of 2015 led to a shift of priorities and eu-LISA focused on the increased Eurodac capacity needs and operational emergencies.</p> <p>The Eurodac recast proposal that was submitted by the European Commission in 2016 and the ongoing negotiations are putting forward the extension of the Eurodac scope. Among other coming changes, the introduction of alphanumeric searches to Eurodac is being considered. Under the new circumstances, the existing communication mechanism will no longer be able to support efficiently Eurodac needs.</p> <p>This change will also be an enabler for the future interoperability efforts. Budget necessary to change the communication model, according to the initial estimations done as part of the new Eurodac MWO planning in 2016. These budget estimates include software/configuration changes and related services for changing the communication mechanism, as well as changes at the front-end infrastructure/serves handling the communication with the Member States. Updates on the security model and controls are also considered</p>			
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Evolution of Eurodac	Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for Eurodac	Application Manager/Head of Sector Project Manager	0.30	250,000	2.3.1.25	Budget has been estimated based on similar activities run in previous years			4.2.2019	31.10.2019
Eurodac maintenance	Eurodac maintenance	Application Manager/Head of Sector IT Specialist Application Administrator	1.00	1,500,000	2.2.1.2	Annual operational budget planned for within the new Eurodac MWO to cover corrective and adaptive maintenance (with local service desk set-up from the Eurodac contractor) and urgent technical/operational emergency changes	2,500,000	2,500,000	1.1.2019	31.12.2019
General security activities	Operate, plan and develop the business continuity/disaster recovery/emergency response parts from the security and continuity management	Security Officer Business Continuity Officer Security Officer/Team Leader	1.00		2.1.6	N/A			1.1.2019	31.12.2019
General security activities	Operate, plan and develop the protective elements of the security and continuity management	Security Policy Expert Security Officer Security Officer/Team Leader	1.90		2.1.6	N/A			1.1.2019	31.12.2019
General security activities	Physical security improvement of the eu-LISA HQ in Strasbourg	Security Officer/Team Leader Security Officer	0.40		2.1.6	N/A			1.1.2019	31.12.2019
General security activities	Physical security improvement of the	Security Officer/Team Leader Security Policy Expert	0.40		2.1.6	N/A			1.1.2019	31.12.2019

	new eu-LISA HQ in Tallinn									
Meetings and missions directly related to core systems	Timely administrative support for the advisory groups	Management Board Officer Management Board Assistant	1.10	240,000	2.1.1	The budget is necessary to ensure the organisation of 4 statutory meetings for EAG/SAG/VAG + 12 meetings for the EES AG	240,000	240,000	1.1.2019	31.12.2019
Other activities related to core business systems or network	24/7 first level support for operational management of the systems — eu-LISA Service Desk	Helpdesk Operator Service Manager	17.00		2.2.1.1	N/A			1.1.2019	31.12.2019
Other activities related to core business systems or network	24/7 second-level application support for operational management of the core business systems	Application Administrator	5.50		2.2.1.2	N/A			1.1.2019	31.12.2019
Other activities related to core business systems or network	Conducting a unified network test phase (continuation from 2018)	Network Administrator	0.55		2.3.1.28	N/A			3.7.2017	28.6.2019
Other activities related to core business systems or network	CSI second phase implementation maintenance, including reorganisation of the data centres	Network Administrator System Administrator Data Centre Manager	1.80	5,460,000	2.3.1.1	Apart from operating the core business systems, eu-LISA has to perform this in an efficient and cost effective manner. In this context, a CSI was put in place already in 2017 (with 2018 in its second phase of implementation) and has to be properly maintained. Moreover, as a consequence, the data centres need to be properly reorganised. The main part of the budget will be used to finance the proper maintenance of the CSI.	5,000,000	5,000,000	3.1.2017	31.12.2019

						The actual cost includes the maintenance activities and the reorganisation of the two data centres (including separate reorganisation for Orange and SFR racks).				
Other activities related to core business systems or network	CSI second phase implementation	Network Administrator System Administrator	1.50	3,000,000	2.3.1.2	Apart from operationally managing the core business systems under its mandate, eu-LISA has to perform these tasks in an efficient and cost effective manner. Currently the core business systems operate using a 'silo-mode' approach, which means that technical services are replicated for each system. In this context, a CSI layer with common shared services implemented on top has to be fully implemented, which will allow eu-LISA to significantly reduce the relevant total cost of ownership. The budget will be used to finance the proper CSI implementation. The actual cost includes the implementation of the remaining common shared services not implemented in the previous years, due to budgetary constraints	400,000		3.1.2017	31.12.2019
Other activities related to core business systems or network	eu-LISA ITSM framework maintenance and development	Process Manager	0.30	100,000	2.2.2.1	The external resource is needed to assist eu-LISA experts on the overall organisation of the annual processes review. The planned budget is for the definition and implementation of the planned relationship processes, namely business relationship management, demand management and supplier/vendor management	100,000	100,000	1.1.2019	31.12.2019

						processes (including external resources for the initial process set up), as well as the regular assessment and reporting via the CSI process and also further process integration (possible tool improvements, new tools, etc.)				
Other activities related to core business systems or network	Eurodac network bandwidth upgrade	Test Engineer	0.10	pm	2.3.1.27	The budget required cannot yet be estimated. An impact assessment (study) needs to be done following the approval of the recast proposal, as there are many items still under negotiation that could seriously impact the bandwidth needs (passport copies inclusion, alphanumeric searches, resettlements, etc.). eu-LISA can establish valid estimates only when the legal proposal is approved (or at least when there is confidence about which of the changes that are currently under discussion will be finally included in the proposal)			1.1.2019	31.12.2019
Other activities related to core business systems or network	Integration of the asset management with configuration management	Helpdesk Operator Network Administrator System Administrator Process Manager/Head of Sector	0.61	400,000	2.3.1.3	The Agency tracks the components of the IT services through IT asset management and also protects the integrity of those IT services through configuration management. Doing both requires the processes to work in harmony. Configuration management, which is a process that looks at the integrity of the services, covers also some asset management items. The asset lifecycle has two sub-processes — deploy and then operate and optimise. Those processes are the subject of			2.1.2019	31.12.2021

						<p>configuration management. An IT component (for example a server) is an asset but also a configuration item; therefore, it needs to be managed by both asset management and configuration management.</p> <p>The asset management process is a longer process than configuration management. Asset management goes from planning to procurement, receiving the asset, deploying the asset, then operating and optimising the asset before eventually decommissioning and disposing, while configuration is dealing more with operation and management of the configuration item. The configuration item/asset item has to be identified, registered, managed and controlled, audited and verified.</p> <p>These two processes have many interfaces and they have to operate in an integrated mode. The budget is necessary for the purchase of required licences, implementation and maintenance, and external support to ensure proper integration of the two processes</p>				
Other activities related to core business systems or network	Introduction of advanced network statistics (continuation from 2018)	Network Administrator	0.40		2.3.1.29	N/A			1.5.2017	30.4.2019
Other activities	Operate, manage and maintain the backup	System Administrator	0.50	1,050,000	2.2.1.10	To ensure uninterrupted and high-quality 24/7 level 1	1,050,000	1,050,000	1.1.2019	31.12.2019

related to core business systems or network	data centre and backup operational site in St Johann im Pongau, AT					operation/management of core business systems and the underlying infrastructure, in case this is needed; this activity is required to enable the backup data centre to cover 24/7 the daily operation of the IT infrastructure for core business systems, including operational management, release and change management, incident and problem management and resolution, maintenance activities and facilitation of project execution. It is currently expected that the data centre space will increase significantly in the coming 2 years owing to new projects being implemented at eu-LISA. This will require a remarkable increase in both the floor space required and energy costs for the equipment. All data centre space has been consumed at the moment				
Other activities related to core business systems or network	Operational management of the communication infrastructure and the related communication systems	Network Administrator	4.00	500,000	2.2.1.11	The budget is necessary to ensure that the communication infrastructure and related communication systems provide the necessary service to core business systems and to Member States	500,000	500,000	1.1.2019	31/12/2019
Other activities related to core business systems or network	Operational management/daily system management operations	System Administrator	3.00	pm	2.2.1.9	N/A			1.1.2019	31.12.2019

<p>Other activities related to core business systems or network</p>	<p>Single integrated monitoring solution — continuation from 2018</p>	<p>Network Operations Officer Helpdesk Operator Data Centre Manager Network Administrator Process Manager/Head of Sector Service Manager System Administrator</p>	<p>1.00</p>	<p>400,000</p>	<p>2.3.1.4</p>	<p>An increasing number of monitoring and control monitors overlap the workplaces and are no longer in the range of the vision of the operator. The result: the operator has no overview and important alerts are not detected. Currently, the eu-LISA Service Desk is monitoring and operating three major IT systems with sub-systems, which are all for security reasons physically separated from one another. In total, there are five different environments to be operated by the eu-LISA Service Desk.</p> <p>Currently it is not possible to work on all supported systems from one workstation. Thus, the Service Desk Operator has currently to operate around eight different workstations simultaneously, with eight keyboards and eight mice per shift.</p> <p>In addition, each system and sub-system is using a different set of software to monitor the systems, from different vendors, owing to different and changing framework/MWO contracts. The current situation is already unsatisfactory, being rather unclear and confusing for the operators. New projects and assignments will be added to eu-LISA's tasks in the near future, and will need close 24/7 monitoring. This will exacerbate the unclear and confusing situation for the operators, as new screens</p>			<p>1.1.2018</p>	<p>20.12.2019</p>
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						and workstations will need to be added. In the case of a crisis/incident, or just when needed for daily statistics, the eu-LISA Service Desk is with the current layout not able to project in real time a requested program or environment into a meeting or situation room. To conclude, with the current set-up eu-LISA cannot guarantee the most critical and correct information at the right time. That is crucial for 24/7 business as well as for the large real-time IT systems eu-LISA operates. The budget is to cover network improvements and new hardware equipment				
Other activities related to core business systems or network	TESTA-ng VIS second encryption layer implementation	Network Operations Officer	1.50		2.3.1.31	N/A			1.9.2016	30.9.2019
Other activities related to core business systems or network	Unified wide area network perimeter — study and design	Network Administrator Network Operations Officer	1.90	2,000,000	<b>Error! Reference source not found.</b> 2.3.1.26	The project should address the following expected business needs: - optimal network solution used to interconnect core business systems with the communication infrastructure; - efficient solution for the new business systems (EES, ETIAS) and the new functionalities (Eurodac web services); - standardisation of the network perimeters across different business systems to increase the effectiveness and flexibility of the			1.1.2019	31.12.2021

						<p>solution;</p> <ul style="list-style-type: none"> <li>- increase the flexibility and the scalability of the CU/BCU switch-over process;</li> <li>- continue to assure and improve the protection of business data and the central system by implementing security measures addressing new and emerging threats;</li> <li>- enable the use of Internet Protocol version 6 communication protocol between central and national systems.</li> </ul> <p>The expenditure will be used for:</p> <ul style="list-style-type: none"> <li>- execution of the study;</li> <li>- design of the unified WAN perimeter</li> </ul>				
Other activities related to core business systems or network	Central repository for reporting and statistics implementation to improve automated reporting and statistics generation Phase 2 — unification of the reporting of all our systems (continuation from 2017)	Project Manager	0.50	1,150,000	2.3.1.36	N/A			1.1.2019	31.12.2019
Other activities related to core business systems or network	Implementation of the regulations on establishing a framework for interoperability between EU information systems	Programme/Project Managers Financial and Procurement Experts Technical Experts Testing Experts Training Experts System Monitoring Experts	27.00	2,818,000	2.3.1.22	Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for interoperability between EU information systems (police and judicial cooperation, asylum and migration) and Proposal for a Regulation of the European Parliament and of the Council on establishing a framework for	11,954,000	45,249,000	1.1.2019	31.12.2023

						interoperability between EU information systems (borders and visa) and amending Council Decision 2004/512/EC, Regulation (EC) No 767/2008, Council Decision 2008/633/JHA, Regulation (EU) 2016/399 and Regulation (EU) 2017/2226 to address the necessity of interoperability of the systems				
Security activities related to core business systems and network	Delivering the information security and assurance service	Security Officer/Team Leader Security Assistant Security Officer Communications Security Officer	3.50	874,000	2.2.1.13	Purchase of licences and maintenance for security software and hardware, including the common shared infrastructure security elements			6.1.2019	20.12.2019
Security activities related to core business systems and network	Implementation of the common shared security infrastructure Phase 3 — identity and access management for the core business systems	Security Officer/Team Leader Security Officer	0.80	500,000	2.3.1.37	This project is required for implementation of an identity and access management service to automate the access management of Agency core business system users using workflows for ITSM access management processes. This technical measure will allow the agency to: - improve effectiveness in the management and control of user access; - reduce the time and effort spent on manually managing and provisioning user accounts; - obtain increased visibility in user access activities for security monitoring and audit purposes. The budget is required to design and implement the service, purchase hardware and software			3.3.2019	8.12.2019

						and to provide user and administration training				
Security activities related to core business systems and network	Security and business continuity exercise for Eurodac	Business Continuity Officer Security Officer Security Officer/Team Leader	0.60	150,000	2.3.1.38	As part of ensuring the effective, secure and continuous operation of large-scale IT systems, eu-LISA must have in place as needed business continuity and security plans and controls, and must make sure that these plans and controls are reflected in reality in the daily operation of large-scale IT systems. To get this assurance, eu-LISA has initiated a programme consisting in preparing, running and assessing on a yearly basis an end-to-end exercise together with the Member States. Performing this exercise for Eurodac would allow the participants to check the level of assurance of the security and business continuity plans and controls, to identify the existing gaps in terms of resources and to find new opportunities to improve the operational management of Eurodac			1.1.2019	31.12.2019
Security activities related to core business systems and network	Implementation of the recommendations coming from the security and business continuity exercises	Business Continuity Officer	0.75		2.2.1.13	N/A			1.1.2019	31.12.2019
Evolution of SIS II	Implementation of SIS II AFIS Phase 2	Project Manager Technical Release Coordinator/Head of Sector Test Engineer IT Specialist	4.00	7,440,000	2.3.1.21	Budget calculated based on previous AFIS implementation experience			1.1.2019	30.11.2020

		Application Administrator								
Evolution of SIS II	New search engine and Oracle upgrade for SIS II, improving availability and considering transcription aspects	Project Manager Application Administrator Test Engineer	2.25	450,000	2.3.1.11	It is necessary to upgrade Oracle products as corresponding support for the current version ends. The benefit is that Oracle will be maintained and there will be a new state-of-the-art search engine fulfilling the needs of Member States			1.6.2018	31.3.2020
Evolution of SIS II	New SIS legal framework	Project Manager Application Administrator Test Engineer	0.00	2,051,000	2.3.1.5	New regulation will be enforced for SIS II to cope with current challenges related to terrorism, missing persons, etc., and a few data categories will be defined. Estimation of the cost is based on previous SIS II implementation experience. Infrastructure, licences and professional services will be purchased under this budget	1,982,000		1.7.2018	31.12.2021
Evolution of SIS II	SIS II return decision	Project Manager Application Administrator Test Engineer	0.00	447,000	2.3.1.6	Budget calculated based on equivalent previous SIS II initiatives. Hardware, licences and professional services	447,000	447,000	1.10.2018	31.12.2021
Evolution of SIS II	Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for SIS II	Application Manager/Head of Sector Project Manager	0.30	250,000	2.3.1.23	Budget has been estimated on the basis of similar activities run in previous years			4.2.2019	31.10.2019
SIS II maintenance	SIS II AFIS maintenance	Project Manager	0.25	3,350,000	2.2.1.7	Corrective maintenance is a mandatory and basic activity	3,350,000	3,350,000	1.1.2019	31.12.2019
SIS II maintenance	SIS II maintenance	Project Manager	0.25	6,000,000	2.2.1.6	Budget calculated based on current SIS II MWO costs	6,000,000	6,000,000	1.1.2019	31.12.2019

SIS II maintenance	SIS II support to Member States (including integration of new users)	Test Manager/TST Team Coordinator/Head of Sector Application Manager/Head of Sector	1.25	450,000	2.2.1.8	The budget is based on historical information and data	450,000	450,000	1.1.2019	31.1.2019
Technology monitoring expenditure	Execution of externally directed activities delineated in the annual research and technology monitoring roadmap for 2019 and the research and technology monitoring strategy 2019-2021	Research and Development Officer	0.40		2.1.1	N/A			1.1.2019	31.12.2019
Technology monitoring expenditure	Monitoring of research and technological developments and input of learning into internal projects focused on system evolution, new system implementation, Agency capability enhancement and new service provision	Research and Development Officer	0.50		2.1.1	N/A			1.1.2019	13.12.2019
Training directly related to operations	Providing training on the technical use of the systems to the Member States	Training Coordinator for the Member States	0.90	450,000	2.1.1	Delivery of annual training plan (including new systems)	450,000	450,000	1.1.2019	31.12.2019
Evolution of VIS/BMS	BMS database increase (Phase 1; continuation from 2017 and 2018)	Project Manager Test Engineer Application Administrator IT Specialist	1.20		2.3.1.9	N/A			3.9.2017	30.4.2020
Evolution of VIS/BMS	TST upscale to 100% PPE (Phase 1)	IT Specialist Project Manager	2.80	6,020,000	2.3.1.10	Estimate based on similar previous projects. The amount is necessary			2.6.2019	1.12.2020

						for buying licences (virtual machines, security, MORPHO, etc.), provision of services and infrastructure supplies				
Evolution of VIS/BMS	Implementation of VIS/BMS end-to-end testing platform (continuation from 2017 and 2018)	Application Administrator Test Engineer Project Manager	1.00		2.3.1.7	N/A			2.9.2018	31.3.2019
Evolution of VIS/BMS	USK renewal (continuation from 2018)	System Administrator Helpdesk Operator	0.50		2.3.1.8	N/A			1.11.2018	1.9.2020
Evolution of VIS/BMS	VIS capacity increase to 100 M visa applications (continuation from 2017 and 2018)	Test Engineer Application Manager/Head of Sector Customer Relationship Officer Application Manager PAS Team Coordinator/Head of Sector IT Specialist Technical Release Coordinator/Head of Sector Application Administrator Change Manager Test Manager/TST Team Coordinator/Head of Sector	3.00		2.3.1.12	N/A			31.5.2017	31.7.2019
Evolution of VIS/BMS	VIS new users integration: Europol	Project Manager Test Engineer Business Relationship Manager Business Analyst	1.00	400,000	2.3.1.14	The amount for implementation is based on an impact assessment report resulting from a study delivered in the context of HOME-C3-2011/SC8-RFS088			1.1.2019	31.12.2019

		Application Manager Technical Release Coordinator								
Evolution of VIS/BMS	Granting of passive access of BG and RO to VIS	Technical Release Coordinator Test Engineer Project Manager	0.60	280,000	2.3.1.14	The amount is based on the Impact Assessment Report 015			1.1.2019	31.12.2019
Evolution of VIS/BMS	Impact assessment for implementation of (1) active/active configuration, (2) central repository for reporting and statistics and (3) common shared infrastructure for VIS	Application Manager/Head of Sector Project Manager	0.30	250,000	2.3.1.24	Budget has been estimated on the basis of similar activities run in previous years			4.2.2019	31.10.2019
VIS/BMS maintenance	VIS/BMS maintenance	Application Manager/Head of Sector Project Manager	2.50	16,984,000 <sup>118</sup>	2.2.1.5	The budget of the activity includes adaptive, corrective, perfective and preventive maintenance sets for the VIS application, infrastructure and programme management services	20,338,000	20,338,000	1.1.2019	31.12.2019

<sup>118</sup>

Any financial requirement in addition to the subsidy must be mobilised either by budgetary transfer or by other revenue, including from the Associated Countries.

## Annex II: Human and financial resources 2019-2021

### Table 1 — Expenditure

Expenditure	2018		2019	
	Commitment appropriations (EUR)	Payment appropriations (EUR)	Commitment appropriations (EUR)	Payment appropriations (EUR)
Title 1	18,202,000	18,202,000	28,539,000	28,539,000
Title 2	11,705,550	11,705,550	14,184,000	14,184,000
Title 3	175,749,677	67,261,805	253,969,000	161,390,500
<b>Total expenditure</b>	<b>205,657,227</b>	<b>97,169,355</b>	<b>296,692,000</b>	<b>204,113,500</b>

EXPENDITURE	Commitment appropriations (EUR)					
	Executed budget for 2017	Budget for 2018	Budget for 2019	VAR 2019/2018 (%)	Envisaged for 2020	Envisaged for 2021
<b>Title 1</b>						
<b>Staff expenditure</b>	<b>16,120,077</b>	<b>18,202,000</b>	<b>28,539,000</b>	<b>156.79</b>	<b>40,551,000</b>	<b>44,802,000</b>
Salaries and allowances	14,216,682	16,102,725	24,394,314	151.49	38,552,688	42,996,777
- of which establishment plan posts	11,846,171	13,241,125	18,675,257	141.04	25,564,688	28,233,777
- of which external personnel	2,370,510	2,861,600	5,719,057	110799.86	12,988,000	14,763,000
Expenditure relating to staff recruitment	113,395	321,100	1,130,900	352.20	379,523	379,523
Mission expenses	466,000	433,777	443,700	102.29	426,000	426,000
Socio-medical infrastructure	761,073	851,598	1,652,526	194.05	640,229	639,700
Training	562,927	492,800	917,560	186.19	552,560	360,000

<b>Title 2</b>						
<b>Infrastructure and operating expenditure</b>	<b>9,697,503</b>	<b>11,705,550</b>	<b>14,184,000</b>	<b>121.17</b>	<b>16,994,200</b>	<b>25,572,400</b>
Rental of buildings and associated costs	976,457	862,500	2,557,000	296.46	3,572,200	12,314,400
Information and communication technology	1,769,542	1,859,000	2,010,000	108.12	1,700,000	1,680,000
Movable property and associated costs	95,272	945,500	248,000	26.23	246,000	244,000
Current administrative expenditure	982,038	724,150	827,000	114.20	1,278,100	1,265,000
Postage/telecommunications	32,886	27,500	39,000	141.82	40,000	40,000
Meeting expenses	266,066	255,700	649,000	253.81	970,000	959,000
Information and publications	1,291,628	1,312,500	1,696,000	129.22	1,532,000	1,514,000
External support services	3,673,789	3,708,700	3,442,000	92.81	4,605,900	4,543,000
Security	609,826	2,010,000	2,716,000	135.12	3,050,000	3,013,000
<b>Title 3</b>						
<b>Operational expenditure</b>	<b>130,184,896</b>	<b>175,749,677</b>	<b>253,969,000</b>	<b>144.51</b>	<b>189,859,000</b>	<b>199,998,000</b>
Infrastructure	9,147,109	17,830,258	37,626,000	211.02	59,021,000	87,060,000
Applications	117,254,245	151,054,919	211,547,000	140.05	123,110,000	108,456,000
Operational support activities	3,783,542	6,864,500	4,796,000	69.87	7,728,000	4,482,000
<b>TOTAL EXPENDITURE</b>	<b>156,002,476</b>	<b>205,657,227</b>	<b>296,692,000</b>	<b>144.27</b>	<b>247,404,200</b>	<b>270,372,400</b>

Table 2 — Revenue

Revenues	2018	2019
	Revenues estimated by the agency (EUR)	Budget forecast (EUR)
EU contribution	93,638,436	204,113,500
Other revenue	3,530,919	pm
<b>Total revenues</b>	<b>97,169,355</b>	<b>204,113,500</b>

REVENUES	2017	2018	2019	VAR 2020/2019 (%)	Envisaged 2020 (EUR)	Envisaged 2021 (EUR)
	Executed budget (EUR)	Revenues estimated by the agency (EUR)	As requested by the agency (EUR)			
<b>1 REVENUE FROM FEES AND CHARGES</b>						
<b>2 EU CONTRIBUTION</b>	67,734,200	93,638,436	204,113,500	100	203,244,930	225,554,400
<i>of which assigned revenues deriving from previous years' surpluses</i>		8,817,115	1,341,491			
<b>3 THIRD COUNTRIES CONTRIBUTION (including EFTA and candidate countries)</b>	2,421,985	3,530,919				
<i>of which EFTA</i>	2,421,985	3,530,919				
<i>of which candidate countries</i>						
<b>4 OTHER CONTRIBUTIONS</b>	124,488	-	-			
<i>of which delegation agreement, ad hoc grants</i>						
<b>5 ADMINISTRATIVE OPERATIONS</b>						
<b>6 REVENUES FROM SERVICES RENDERED AGAINST PAYMENT</b>						
<b>7 CORRECTION OF BUDGETARY IMBALANCES</b>						
<b>TOTAL REVENUES</b>	<b>70,280,673</b>	<b>97,169,355</b>	<b>204,113,500</b>	<b>100</b>	<b>203,244,930</b>	<b>225,554,400</b>



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		Total	9,697,503	9,655,345	11,705,550	11,705,550	14,184,000	14,184,000	16,994,200	16,994,200	25,572,400	25,572,400
Title 3 Operational expenditure	eu-LISA estimates	Total eu-LISA estimates	117,104,896	44,587,675	147,483,677	67,261,805	216,575,000	127,674,900	148,398,000	94,230,650	109,960,000	66,634,000
		Shared system infrastructure	9,147,109	7,037,092	17,830,258	10,532,886	12,231,000	24,443,000	25,487,000	16,710,100	19,234,000	-2,531,000
		SIS II	6,797,223	13,077,750	16,991,669	14,125,669	17,690,000	19,572,900	10,948,000	6,568,800	13,300,000	9,975,000
		VIS/BMS	36,972,569	17,470,586	22,111,306	28,542,306	23,684,000	22,905,000	18,305,000	28,728,750	20,338,000	15,253,500
		Eurodac	5,884,453	3,152,296	2,705,944	5,901,944	2,825,000	5,026,000	6,525,000	3,915,000	4,500,000	3,375,000
		EES	54,520,000	-	57,513,000	2,259,000	144,326,000	40,259,000	23,605,000	25,000,000	29,552,000	22,164,000
		ETIAS			23,467,000	-	11,023,000	11,023,000	55,800,000	5,580,000	18,554,000	13,915,500
		Operational support activities	3,783,542	3,849,952	6,864,500	5,900,000	4,796,000	4,446,000	7,728,000	7,728,000	4,482,000	4,482,000
	Subject to new legal basis	Total LFS subject to new legal basis	13,080,000	-	28,266,000	-	37,394,000	33,715,600	41,461,000	51,469,080	90,038,000	87,659,500
		LFS Eurodac	11,330,000		11,870,000		5,600,000	3,920,000		8,640,000	50,000	100,000
		LFS Dublin allocation	1,750,000		983,000		135,000	135,000	735,000	735,000	735,000	735,000
		LFS SIS II recast border/police cooperation			12,893,000		2,051,000	499,600	1,982,000	3,350,080	1,982,000	1,882,000
		LFS SIS II recast return			2,520,000		447,000		447,000	447,000		
		LFS VIS recast									16,244,000	13,915,500
		LFS ECRIS*			3,766,000	3,766,000	3,766,000	3,766,000	3,766,000	3,766,000	3,201,000	3,201,000
LFS interoperability						2,818,000	2,818,000	11,954,000	11,954,000	45,249,000	45,249,000	
LFS revised ER — additional budget revision*			22,577,000	22,577,000	22,577,000	22,577,000	22,577,000	22,577,000	22,577,000	22,577,000		
Total		130,184,896	44,587,675	175,749,677	67,261,805	253,969,000	161,390,500	189,859,000	145,699,730	199,998,000	154,293,500	
TOTAL EXPENDITURE	eu-LISA estimates		142,654,476	70,095,097	177,391,227	97,169,355	251,847,000	162,946,900	196,151,200	141,983,850	168,183,400	124,857,400
	Subject to new legal basis	Total LFS subject to new legal basis	13,348,000	268,000	28,266,000	-	44,845,000	41,166,600	51,253,000	61,261,080	102,189,000	99,810,500
		LFS Eurodac	11,598,000	268,000	11,870,000	-	5,868,000	4,188,000	268,000	8,908,000	318,000	368,000
		LFS Dublin allocation	1,750,000	-	983,000	-	135,000	135,000	735,000	735,000	735,000	735,000
		LFS SIS II recast border/police cooperation	-	-	12,893,000	-	2,261,000	709,600	2,192,000	3,560,080	2,192,000	2,092,000
		LFS SIS II recast return	-	-	2,520,000	-	517,000	70,000	517,000	517,000	70,000	70,000

		<i>LFS VIS recast</i>									17,186,000	14,857,500
		<i>LFS ECRIS*</i>	-	-	4,029,000	4,029,000	4,116,000	4,116,000	4,116,000	4,116,000	3,551,000	3,551,000
		<i>LFS interoperability</i>	-	-	-	-	5,830,000	5,830,000	17,031,000	17,031,000	51,743,000	51,743,000
		<i>LFS revised establishing regulation**</i>	-	-	25,842,000	25,842,000	26,118,000	26,118,000	26,394,000	26,394,000	26,394,000	26,394,000
		<b>Total expenditure</b>	<b>156,002,476</b>	<b>70,363,097</b>	<b>205,657,227</b>	<b>97,169,355</b>	<b>296,692,000</b>	<b>204,113,500</b>	<b>247,404,200</b>	<b>203,244,930</b>	<b>270,372,400</b>	<b>224,667,900</b>

\* Additional appropriations for ECRIS and revised ER — additional tasks (unknown at the time of the draft 2018 budget prepared in January 2017) amounting to EUR 30 MIO will be added to eu-LISA Financial Statement upon adoption of the legal basis. Not included in the total sums for 2018, but listed for completeness.

\*\* The figures do not include elements related to the revised ER when these are listed separately in the budget for easier reference to specific initiatives.

**Table 4 — Budget outturn and cancellation of appropriations**

Budget outturn	2015 (EUR)	2016 (EUR)	2017 (EUR)
Revenue actually received (+)	71,256,223	96,524,173	70,280,673
Payments made (-)	-59,374,948	-74,526,778	-62,670,566
Carry-over of appropriations (-)	-22,002,810	-8,462,207	-9,995,960
Cancellation of appropriations carried over (+)	10,690,034	474,015	658,330
Adjustment for carry-over of assigned revenue appropriations from previous year (+)		2,460,299	3,068,767
Exchange rate differences (+/-)	-820	-206	248
Adjustment for negative balance from previous year (-)	-8,219,860	-7,652,181	
<b>Total</b>	<b>-7,652,181</b>	<b>8,817,115</b>	<b>1,341,491</b>

## Annex III

The table shows the increase in the total number of posts for contract agents and temporary agents due to the expected adoption of the legal basis for the Entry/Exit System, ETIAS, SIS II returns, SIS II Borders and the Eurodac allocation as well as the change to the eu-LISA establishing regulation as described in Section 3.2.2. It also includes the 5% cut of posts of temporary agents. It also includes the figures for the interoperability between the EU information systems, for which the discussion with the Commission on the proposal is ongoing.

**Table 1 — Staff population and its evolution: overview of all categories of staff**

Staff population		Actually filled as of 31.12.2016	Authorised under the EU budget for 2017	Actually filled as of 31.12.2017	Authorised under the EU budget for 2018	In draft budget for 2019	Envisaged for 2020	Envisaged for 2021
Officials	AD	0	0	0	0	0	0	0
	AST	0	0	0	0	0	0	0
	AST/SC	0	0	0	0	0	0	0
TA	AD	72	88 <sup>119</sup>	71	112 <sup>120</sup>	129 <sup>121</sup>	142 <sup>122</sup>	148,5 <sup>123</sup>

<sup>119</sup> Includes 73 posts as in the establishment plan, with cuts implemented in the context of 5% staff cuts, plus 13 posts for the EES and 2 posts for the Eurodac recast.

<sup>120</sup> This figure includes 88 posts, with 1 post cut in the context of 5% staff cuts, plus 7 additional posts for ETIAS and 18 posts for changes in the establishing regulation.

<sup>121</sup> Includes 112 posts, plus 2 posts for changes in the establishing regulation, 14 additional posts for interoperability and 1 post for the Deputy Executive Director.

<sup>122</sup> Includes 114 posts, plus 2 additional posts for changes in the establishing regulation and 25 additional posts for interoperability.

<sup>123</sup> Includes 31.5 additional posts for interoperability.

	AST	43	43 <sup>124</sup>	43	43 <sup>125</sup>	43	43	43
	AST/SC	0	0		0	0	0	
<b>Total</b>		<b>115</b>	<b>131</b>	<b>114</b>	<b>155</b>	<b>172</b>	<b>185</b> <sup>126</sup>	<b>191.5</b> <sup>127</sup>
CA GF IV		18+(5) <sup>128</sup>	27	27	34 <sup>129</sup> (23+10+1)	62.5 <sup>130</sup> (34+5+12+4+2.5+4-2)	66 <sup>131</sup> (64.5+2.5+1-2)	71.5 <sup>132</sup> (68+5+0.5-2)
CA GF III		1+(2) <sup>133</sup>	3	5	5 <sup>134</sup> (3+2)	26.5 <sup>135</sup> (5+13+8.5)	43 <sup>136</sup> (26.5+10+6.5)	54 <sup>137</sup> (43+5+6)

<sup>124</sup> Includes 42 posts as in the establishment plan, with cuts implemented in the context of 5% staff cuts and for the deployment pool, and an additional 1 post for the EES.

<sup>125</sup> Includes 43 posts, with 1 post cut in the context of 5% staff cuts and 1 additional post for changes in the establishing regulation.

<sup>126</sup> Includes 159 posts as identified above.

<sup>127</sup> Includes 159 posts as identified above.

<sup>128</sup> Includes 2 additional posts created in 2016 by ED Decision No 45/2016 of 12 May 2016: a system engineer in the Corporate Services Sector and a policy officer in the Liaison Office of eu-LISA.

<sup>129</sup> Includes 27 posts as a baseline, plus 10 posts for ETIAS and 1 post for SIS II Borders and SIS II returns (4 posts for SIS II in FG IV should be considered; see footnotes 138 and 141).

<sup>130</sup> Includes 34 posts plus 5 posts for ECRIS, 12 posts for insourcing intra-muros under the revised regulation, 4 posts for SIS II recast, 2.5 posts for ETIAS and 4 additional posts for interoperability, minus 2 posts, which are in FG II.

<sup>131</sup> Includes 64.5 posts plus 2.5 posts for ETIAS and 1 additional post for interoperability, minus 2 posts, which are in FG II.

<sup>132</sup> Includes 68 posts plus 5 posts for ETIAS and 0.5 additional posts for interoperability, minus 2 posts, which are in FG II.

<sup>133</sup> Includes 1 additional post created in 2016 by ED Decision No 45/2016 of 12 May 2016: assistant to the Head of the GCU in Tallinn.

<sup>134</sup> Includes 3 posts as baseline plus 2 additional posts and lowered function group for SIS II recast.

<sup>135</sup> Includes 5 posts plus 13 posts for insourcing intra-muros under the revised regulation and 8.5 additional posts for interoperability.

<sup>136</sup> Includes 26.5 posts plus 10 additional posts for ETIAS and 6.5 additional posts for interoperability.

<sup>137</sup> Includes 43 posts plus 5 additional posts for ETIAS and 6 additional posts for interoperability.

CA GF II	0	0	0	2 <sup>138</sup>	2 <sup>139</sup>	2	2
CA GF I	0	0	0	0	0	0	0
<b>Total CA</b>	<b>19 (+ 7)</b>	<b>30</b>	<b>32</b>	<b>41</b>	<b>91</b>	<b>111</b>	<b>127.5</b>
SNE	6	9	7	9+2 <sup>140</sup>	11	11	11
Structural service providers <sup>141</sup>	57	69	69	70	70	50	50
<b>TOTAL</b>	<b>147</b>	<b>170</b>	<b>222</b>	<b>277</b>	<b>343</b>	<b>357</b>	<b>380</b>
External staff for occasional replacement	0		2	1			

## Table 2 — Multi-annual staff policy plan 2019-2021

The establishment plan outlines indicative planning for the period 2019-2021, taking into account the establishment plan figures approved for 2017 and 2018. It includes additional staff expected in 2018 and 2019 for Eurodac, ETIAS and the interoperability of the systems that will be filled in following the adoption of the relevant legal instruments. In 2016, no changes to the establishment plan were requested with the use of the 10% flexibility rule.

These figures do not include any staff for the EES operational phase (17.5 posts).

Changes to the numbers in the given grades are due to the calculation of the posts for the purpose of reclassification of the staff members. Figures for 2020 and 2021 are indicative and may be subject to change.

<sup>138</sup> Includes 2 additional posts authorised as part of the adoption of the 2018 budget, which should be attributed to lowering a function group for SIS II or ETIAS or later regularisation (see footnote 132).

<sup>139</sup> Includes 2 posts for insourcing intra-muros under the revised regulation (this is to regularise for 2018 authorised posts by swapping with SIS II recast)

<sup>140</sup> Includes 2 additional SNE posts for training in the GCU approved by the MB in 2017.

<sup>141</sup> The structural and external service providers are described in Annex IV, Section A(e). The same numbers are included here, subject to change following the adoption of the revised regulation and the 2019 budget for insourcing intra-muros.

Category and grade	Establishment plan under the EU budget for 2017		Filled as of 31.12.2017		Modifications in 2017 in application of flexibility rule		Establishment plan under the EU budget for 2018		Modifications in 2018 in application of flexibility rule		Establishment plan under the draft EU budget for 2019 <sup>142</sup>		Establishment plan 2020		Establishment plan 2021	
	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA
AD16		0		0				0				0		0		0
AD15		1		1				1				1		1		1
AD14		1		0				1				1		1		1
AD13		2		2				2				3 <sup>143</sup>		3		3
AD12		3		1				3				4 <sup>144</sup>		4		4
AD11		4		4				5 <sup>145</sup>				5		5		5
AD10		6		3				8 <sup>146</sup>				8		8		8
AD9		10		9				13 <sup>147</sup>				16		16		16
AD8		17		12				17 <sup>148</sup>				17		17		17

<sup>142</sup> Figures for the revised regulation have been added.

<sup>143</sup> Includes one post for the Deputy Executive Director.

<sup>144</sup> Includes one additional post for the revised regulation.

<sup>145</sup> One post is expected to be reclassified from grade AD10 to AD11.

<sup>146</sup> One post is expected to be reclassified from grade AD9 to AD10, plus two additional posts for ETIAS.

<sup>147</sup> One post is expected to be reclassified from grade AD8 to AD9.

<sup>148</sup> Expected to be reclassified from grade AD7 to AD8

Category and grade	Establishment plan under the EU budget for 2017		Filled as of 31.12.2017		Modifications in 2017 in application of flexibility rule		Establishment plan under the EU budget for 2018		Modifications in 2018 in application of flexibility rule		Establishment plan under the draft EU budget for 2019 <sup>142</sup>		Establishment plan 2020		Establishment plan 2021	
	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA
AD7		17		16				21 <sup>149</sup>				31 <sup>150</sup>		49.5 <sup>151</sup>		50 <sup>152</sup>
AD6		13		15				12 <sup>153</sup>				14 <sup>154</sup>		15 <sup>155</sup>		15
AD5		14		8				11 <sup>156</sup>				29 <sup>157</sup>		40 <sup>158</sup>		40
<b>Total AD</b>		<b>88</b>		<b>71</b>				<b>94<sup>159</sup></b>				<b>129</b>		<b>159.5<sup>160</sup></b>		<b>160<sup>161</sup></b>
AST11		0		0				0				0		0		0

<sup>149</sup> Expected to be reclassified from grade AD6 to AD7, plus two additional posts for ETIAS.

<sup>150</sup> Includes 10 additional posts for the revised regulation.

<sup>151</sup> Includes 1 additional post for the revised regulation and 17.5 posts for the operational phase of the EES.

<sup>152</sup> Includes 0.5 FTE to complete 1 post from 2019 to 1 FTE.

<sup>153</sup> Includes 2 additional posts for ETIAS.

<sup>154</sup> Includes 2 additional posts for interoperability of systems.

<sup>155</sup> Includes 1 additional post for interoperability of systems.

<sup>156</sup> Expected to be reclassified from grade AD5 to AD6, 1 post cut, 8 additional posts for the EES, plus 2 additional posts for the Eurodac recast.

<sup>157</sup> Includes 7 additional posts for the revised regulation, plus 11 posts for interoperability of systems.

<sup>158</sup> Includes 1 additional post for revised regulation, plus 9.5 posts for interoperability of systems.

<sup>159</sup> Expected to be reclassified from grade AD5 to AD6, 1 post cut, plus 1 additional post for ETIAS.

<sup>160</sup> This number will be increased by the additional posts for the operational phase of the EES (31.5 estimated additional posts in 2020).

<sup>161</sup> Ibid.

Category and grade	Establishment plan under the EU budget for 2017		Filled as of 31.12.2017		Modifications in 2017 in application of flexibility rule		Establishment plan under the EU budget for 2018		Modifications in 2018 in application of flexibility rule		Establishment plan under the draft EU budget for 2019 <sup>142</sup>		Establishment plan 2020		Establishment plan 2021	
	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA
AST10		0		0				0				0		0		0
AST9		1		0				1				1		1		1
AST8		2		2				2 <sup>162</sup>				2		2		2
AST7		3		1				4 <sup>163</sup>				4		4		4
AST6		8		7				9 <sup>164</sup>				9		9		9
AST5		12		11				14 <sup>165</sup>				12		12		12
AST4		14		13				11 <sup>166</sup>				12		12		12
AST3		3		9				1 <sup>167</sup>				3 <sup>168</sup>		3		3
AST2		0		0				0				0		0		0
AST1		0		0				0				0		0		0
<b>Total AST</b>		<b>43</b>		<b>43</b>				<b>42</b>				<b>43</b>		<b>43</b>		<b>43</b>
AST/SC1		0		0				0				0		0		0
AST/SC2		0		0				0				0		0		0

<sup>162</sup> Expected to be reclassified from grade AST7 to AST8.

<sup>163</sup> Expected to be reclassified from grade AST6 to AST7.

<sup>164</sup> Expected to be reclassified from grade AST5 to AST6.

<sup>165</sup> Expected to be reclassified from grade AST4 to AST5.

<sup>166</sup> Expected to be reclassified from grade AST3 to AST4.

<sup>167</sup> Expected to be reclassified from grade AST3 to AST4, with 1 post cut.

<sup>168</sup> Includes 1 additional post for the revised regulation

Category and grade	Establishment plan under the EU budget for 2017		Filled as of 31.12.2017		Modifications in 2017 in application of flexibility rule		Establishment plan under the EU budget for 2018		Modifications in 2018 in application of flexibility rule		Establishment plan under the draft EU budget for 2019 <sup>142</sup>		Establishment plan 2020		Establishment plan 2021	
	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA	Officials	TA
AST/SC3		0		0				0				0		0		0
AST/SC4		0		0				0				0		0		0
AST/SC5		0		0				0				0		0		0
AST/SC6		0		0				0				0		0		0
Total AST/SC		0		0				0				0		0		0
<b>TOTAL</b>		<b>131</b>		<b>114</b>				<b>136</b>				<b>172</b>		<b>202.5</b>		<b>203</b>

## Annex IV

### A. Recruitment policy

The Agency's recruitment policy as regards the selection procedures, the entry grades of different categories of staff, the type and duration of employment and different job profiles is ruled by the Conditions of Employment of Other Servants of the European Union (CEOS) and the implementing rules to the Staff Regulations of Officials of the European Union concerning the engagement and use of temporary agents, contract agents and seconded national experts.

In 2017 a number of the recruitments and selection procedures took place for the replacement of the staff leaving eu-LISA during the course of the year (2 TA, 4 CA and 1 SNE posts) as well as for the new staff (7 TA profiles, 1 CA post and 2 SNE posts approved for 2017). Selection procedures were conducted to establish the reserve lists for the EES programme.

The recruitment policy describes the situation from the start of the eu-LISA establishment emphasising the present situation.

#### a) Officials

eu-LISA has no permanent posts in its establishment plan.

#### b) Temporary agents

The staff members of eu-LISA have been and will continue to be recruited to carry out core activities, i.e. permanent tasks that are essential to the proper operation of eu-LISA over time, such as operational, managerial and administrative tasks, and the operational tasks in relation to the Agency's mandate that cannot be outsourced.

In 2017, eu-LISA recruited staff by launching the external selection procedures or used the reserve lists for the selection procedures organised for the Agency in the previous years. No interagency recruitment calls were published to date.

Recruitment is done at the grade advertised in the vacancy notice, which is decided according to the Staff Regulations and Conditions of Employment of Other Servants of the European Union and the relevant implementing rules as well as the corresponding job description. The same approach will be applied in the coming years.

The entry grades for long-term temporary agents in 2017 were as follows:

- AST<sub>3</sub> to AST<sub>4i</sub>

- AD5 to AD8.

#### Duration of contracts

The internal eu-LISA guidelines on contract renewal<sup>169</sup> specify that temporary agents (2f) are to be offered a first fixed-term contract of 5 years, renewable for another time period not exceeding 5 years. Any further renewal must be for an indefinite period. In November 2016, the Management Board of eu-LISA authorised<sup>170</sup> the Executive Director of eu-LISA to grant indefinite contracts to temporary staff after the first contractual term in line with the applicable legal provisions (Article 8 of the Conditions of Employment of Other Servants of the European Union and Article 16 of the Management Board decision No 2015/166 of 18 November 2015). However, contract renewals are subject to a thorough examination of the performance of the staff member and depend on eu-LISA's PD priorities and available budgetary provisions in accordance with the internal guidelines on contract renewal that were developed for this purpose. A total of 30 contracts were renewed in 2017.

#### Recruitment procedure

The key phases of the selection procedures for the recruitment of temporary agents and the contract agents are the similar and can be summarised as follows:

- Publication of a vacancy notice (defining eligibility and selection criteria, indicating type and duration of the contract and recruitment grade).
- Pre-selection of potential candidates on the basis of their application files, evaluating their eligibility and compliance with the selection criteria.
- The best-qualified eligible candidates are asked to undergo a written test as well as an interview covering the specific competences in the area of expertise, general aptitudes and language skills.
- The Selection Committee proposes a list of successful candidates to the Executive Director,<sup>171</sup> who decides on the appointment of a candidate and the establishment of a reserve list. Inclusion on the reserve list does not guarantee employment. The result of the selection process is communicated to the selected candidates.

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169 Decision of the Executive Director No 43/2016 of 31 May 2016.

170 Decision No 2016-123 of 16 November 2016 (reference document 2016-140).

171 For the posts where the appointment to a post is made by the Management Board of the Agency according to the requirements set out in the establishing regulation, a decision is taken by the Management Board.

**c) Contract agents**

Contract agents have been employed to work on specific, time-limited projects, to fill gaps during long-term absences and to cover peaks in workload for limited periods. Staff employed as contract agents carry out administrative and technical tasks that are essential for the proper operation of eu-LISA over time, in particular administrative support.

To select contract agents, eu-LISA launches external selection procedures and uses the reserve lists provided by the European Personnel Selection Office and the reserve lists created by the Agency.

Contract agents are offered time-limited contracts with a maximum duration of 5 years, which may be renewed once for another fixed period of a maximum of 5 years, in accordance with Article 85 of the Conditions of Employment of Other Servants of the European Union, or contracts of a duration of 2 years, which may also be renewed once and used for short-term projects. A 1-year long contract without the possibility of renewal may be offered to replace a staff member on a long absence. However, this has proven to be an ineffective solution, resulting in candidates who have successfully passed the selection process refusing the job offer.

Any further renewal of an employment contract must be for an indefinite period. Renewals of contracts for contract agents will depend on eu-LISA's PD priorities and available budgetary provisions and will be subject to a thorough examination of the performance of the staff member.

**d) Seconded national experts<sup>172</sup>**

SNEs are seconded to eu-LISA by the EU Member States to cover specialised tasks to ensure that the operations of eu-LISA remain firmly in touch with the Member States' needs as end-users. The duration of their secondment is set in accordance with the agreement reached with their original national administrations.

eu-LISA adopted the necessary implementing measures<sup>173</sup> on seconded national experts, which describe the selection procedures, duration of secondment, working conditions, allowances and expenses.

**e) Structural service providers<sup>174</sup>**

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<sup>172</sup> SNEs are not employed by the Agency.

<sup>173</sup> Notification of the MB decision, document no 2012-025 of 28 June 2012.

<sup>174</sup> Structural service providers are not employed by the Agency.

In 2017, eu-LISA was using external service providers for the services or projects that could not be covered by the Agency's staff owing to the limitation in human resources at eu-LISA or the specialised nature of the qualifications or knowledge required, which is not available at the Agency. It is expected that in the coming years external service providers will continue to be used as well.

Table below presents the services used in 2017.

It should be noted that the duration of a contract means a duration of a framework contract. The services under a framework contract are provided with a signature of the individual contracts, the duration of which varies between a couple of months and 1 year.

*Structural service providers to eu-LISA in 2017*

Tasks assigned	Resources in FTE <sup>175</sup>	Tender procedure	Contract duration	Service description
External support	69 FTE <sup>176</sup>	FWC — LISA/2014/OP/03 (lots 1-4)	4 years (2015-2018)	<p>This contract covers diverse services — (a) ICT services and (b) services of an administrative nature — that entail but are not limited to:</p> <ul style="list-style-type: none"> <li>• development and implementation of the internal IT infrastructure (the core corporate information systems such as the document management system, missions management system);</li> <li>• supporting the operational activities related to BMS, and SIS II;</li> <li>• customisation and integrated governance for activities-based management including budgeting, project management, procurement and contract management;</li> <li>• supporting performance of tasks such as internal and external communication, secretarial assistance secretariat of the Management Board;</li> <li>• streamlining training, leave and time management activities under the remit of HR in preparation for the customisation and introduction of the e-HR tool.</li> </ul>

<sup>175</sup> FTE stands for full time equivalent.

<sup>176</sup> This number represents 53 individual contracts for the intra-muros support services and the services being provided (status for 31.12.2017). In 2017, 69 specific contracts were signed: 53 TM (time and means) intra-muros and 16 extra-muros (QTM, quoted time and means; FP, fixed price).

## B. Appraisal of performance and reclassification/promotions

For the third year, in 2017 a reclassification exercise took place at eu-LISA in its full scope in accordance with the relevant rules.

The results of this exercise are presented in Table 1 below.

The rate of promotions in 2017 was 24.3%, which is in line with the average rate in Annex IB to the Staff Regulations (26.63%). The average seniority in grade, however, at the time of the reclassification taking its effect was 2.6 years, which was below the average set in Annex IB to the Staff Regulations (4.3 years).

The Agency is going through a period of rapid growth and expansion. Reclassification is one of the main instruments to motivate all and retain highly qualified employees. In several grades, the number of reclassifications in the reference period is equal to or fewer than three, which makes attaining the average more difficult.

However, eu-LISA is decreasing the rate of reclassification to align the average time spent in grade with the CEOS and the Implementing Rules on Reclassification of Temporary Agents and the Contract Agents.<sup>377</sup> The averages of all grades with reclassifications in 2017 have incrementally moved towards the recommended averages required in the implementing rules. As a rolling period of 5 years is considered, the rapid promotions from early years of the Agency is diluting the impact of a more conservative approach to reclassifications taken in 2017.

### Table 1 — Reclassification of temporary staff/promotion of officials

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<sup>377</sup> Decisions of the Management Board of eu-LISA No 016/2016 of 15 March 2016 laying down general implementing provisions regarding Article 54 of the Conditions of Employment of Other Servants of the European Union and No 017/2016 of 15 March 2016 on general provisions for implementing Article 87(3) of the Conditions of Employment of Other Servants of the European Union.

Category and grade	Staff in activity on 1 January 2016		Staff members promoted/reclassified in 2017 <sup>178</sup>		Average number of years in grade of reclassified/promoted staff members
	Officials	TA	Officials	TA	
AD16					
AD15					
AD14		1		1	5
AD13		2		n/a	n/a
AD12					
AD11		5		1	2.1
AD10		4		1	2.5
AD9		5		1	2.3
AD8		15		4	2.1
AD7		9		3	2.6
AD6		21		7	2.0
AD5		9		2	2.4
<b>Total AD</b>		<b>71</b>		<b>20</b>	<b>2.62</b>
AST11					
AST10					
AST9					
AST8		2		n/a	n/a
AST7					
AST6		8		n/a	n/a
AST5		10		1	2.6

<sup>178</sup>

This table will be updated for 2017 after closure of reclassification exercise.

Category and grade	Staff in activity on 1 January 2016		Staff members promoted/reclassified in 2017 <sup>178</sup>		Average number of years in grade of reclassified/promoted staff members
	Officials	TA	Officials	TA	
AST <sub>4</sub>		12		3	2.0
AST <sub>3</sub>		11		3	2.7
AST <sub>2</sub>		1		1	3.0
AST <sub>1</sub>					
<b>Total AST</b>		<b>44</b>		<b>8</b>	<b>2.57</b>
AST/SC <sub>1</sub>					
AST/SC <sub>2</sub>					
AST/SC <sub>3</sub>					
AST/SC <sub>4</sub>					
AST/SC <sub>5</sub>					
AST/SC <sub>6</sub>					
<b>Total AST/SC</b>		<b>0</b>		<b>0</b>	
<b>Total</b>		<b>115</b>		<b>28</b>	<b>2.60</b>

## Table 2 — Reclassification of contract staff

In 2017, the second reclassification of contract staff took place.

Function group	Grade	Staff in activity on 1 January 2016	Staff members reclassified in 2017	Average number of years in grade of reclassified staff members
CA IV	18			
	17			
	16	1	n/a	2.0
	15	1	n/a	n/a
	14	8	4	2.6
	13	1	n/a	n/a
CA III	12			
	11			
	10	1	n/a	n/a
	9			
	8			
CA II	7			
	6			
	5			
	4			
CA I	3			
	2			
	1			
<b>Total</b>		<b>12</b>	<b>4</b>	<b>2.3</b>

## C. Mobility policy

The introduction of a new category of temporary staff (TA 2f) at the agencies in the new Staff Regulations of Officials and Conditions of Employment of Other Servants of the European Union, which entered into force on 1 January 2014, facilitates mobility within eu-LISA and between the agencies.

In 2015, eu-LISA adopted a model decision<sup>179</sup> on the engagement and use of temporary agents (TA 2f). Owing to the organisational structure and development of eu-LISA, the internal mobility needs and opportunities are assessed with each vacancy or new post being created. In addition, transfers of the post may be taken into account.

In 2017, two internal transfers and changes of duties took place: the Head of Services Design and Transversal Services (SDT) in the Application Management and Maintenance Unit was transferred to the Enterprise Project Management Office (EPMO) under the direct supervision of the Executive Director, with effect from 1 June 2017; and the Head of the Operations and Infrastructure Unit was transferred and assigned to the post of Head of the Application Management and Maintenance Unit, with effect from 16 June 2017.

Interinstitutional mobility is also a reality for eu-LISA. In 2017, 2 people left eu-LISA to work for the European Commission, the European Parliament or another EU agency and, of the 14 new staff members recruited, 4 came from another EU institution, agency or body.

## D. Gender and geographical balance

The gender split of staff, broken down by function type and level, is presented in the table below.

### Staff of eu-LISA by gender

Gender	Administrators			Assistants		Total
	TA	CA	SNE	TA	CA	
Male	56	18	5	29	5	113
Female	15	9	2	14	0	40
<b>Total staff</b>	<b>71</b>	<b>27</b>	<b>7</b>	<b>43</b>	<b>5</b>	<b>153</b>

<sup>179</sup> Decision of the Management Board of eu-LISA No 2015-166 of 11 November 2015 laying down general implementing provisions on the procedure governing the engagement and use of temporary staff under Article 2(f) of the Conditions of Employment of Other Servants of the European Union.

The clear lack of gender balance at eu-LISA is due to the fact that most IT positions in the Agency's Operations Department in Strasbourg are filled by men. More interest from men in employment at eu-LISA is also visible in the number of applications received during recruitment.

In 2014, eu-LISA introduced flexitime to facilitate the balance of the private and professional lives of its staff members. In 2015, for the same purpose, the Agency introduced teleworking<sup>180</sup> and in 2017 these policies continued to be in force.

### Geographical balance

Among the recruited staff of eu-LISA, 21 EU nationalities are represented.

A wide geographical representation of the staff achieved with the recruitment contributes to the diversity of cultures and mutual exchange. Having its main locations in Tallinn and Strasbourg eu-LISA perceives as a natural tendency that the over-representation of the Estonian and French staff up to 30% of the number of employees in the respective locations does not constitute a major distortion of the geographical balance. The largest group of the French personnel is due to the fact that the part of personnel working for the French national authorities on the IT projects transferred to the Agency at the time of the establishment of the Agency joined eu-LISA following the competition procedure for these highly specialised posts

The nationalities of eu-LISA's staff (temporary agents) by function group are presented in the table below.

### Staff of eu-LISA by nationality

eu-LISA — recruitment status on 31.12.2017				
Nationality	AD	AST	Total AD + AST	Percentage
Austria (AT)	0	0	0	0
Belgium (BE)	3	4	7	6.19
Bulgaria (BG)	3	0	3	2.65
Croatia (HR)	1	0	1	0.88

<sup>180</sup> Decision of the Management Board of eu-LISA No 2015-100 of 11 November 2015 on the implementation by analogy of the Commission Decision of 16 December 2013 amending Article 7(5) and (7) of Commission Decision C(2009)10224 of 18 December 2009 concerning the implementation of teleworking in Commission departments from 2010 to 2015.

## eu-LISA PUBLIC

eu-LISA — recruitment status on 31.12.2017				
Nationality	AD	AST	Total AD + AST	Percentage
Cyprus (CY)	0	0	0	0
Czechia (CZ)	1	1	2	1.77
Denmark (DK)	0	0	0	0
Estonia (EE)	5	6	11	9.73
Finland (FI)	0	1	1	0.88
France (FR)	18	9	27	23.01
Germany (DE)	4	1	5	4.42
Greece (EL)	6	1	7	6.19
Hungary (HU)	4	2	6	5.31
Ireland (IE)	1	0	1	0.88
Italy (IT)	8	1	9	7.96
Latvia (LV)	0	3	3	2.65
Lithuania (LT)	1	3	4	3.54
Luxembourg (LU)	0	0	0	0
Malta (MT)	0	0	0	0
Netherlands (NL)	0	1	1	0.88
Poland (PL)	4	2	6	5.31
Portugal (PT)	1	2	3	2.65
Romania (RO)	7	4	11	9.73
Slovakia (SK)	2	0	2	1.77
Slovenia (SI)	0	0	0	0
Spain (ES)	2	1	3	2.65
Sweden (SE)	0	0	0	0
United Kingdom (UK)	0	1	1	0.88
<b>Total staff</b>	<b>71</b>	<b>43</b>	<b>114</b>	<b>100.00</b>

To achieve a representation of nationalities reaching the percentages similar to the representation of nationalities in the general EU population, the Agency has been adding from October 2014 specific messages to all its vacancy announcements encouraging candidates from the under-represented countries in eu-LISA to apply.

The nationalities of the other groups of eu-LISA's staff population (contract agents and seconded national experts) are presented in the table below.

**eu-LISA's contract agents and SNEs by nationality**

Nationality	eu-LISA — recruitment status on 31.12.2017		
	CA FG IV	CA FG III	SNE
Austria (AT)			
Belgium (BE)	1		
Bulgaria (BG)			1
Croatia (HR)	1		
Cyprus (CY)			
Czechia (CZ)			
Denmark (DK)			
Estonia (EE)	1	2	0
Finland (FI)			
France (FR)	9	3	
Germany (DE)			2
Greece (EL)	4		3
Hungary (HU)			
Ireland (IE)			
Italy (IT)	1		1
Latvia (LV)	1		
Lithuania (LT)			
Luxembourg (LU)			
Malta (MT)			

Nationality	eu-LISA — recruitment status on 31.12.2017		
	CA FG IV	CA FG III	SNE
Netherlands (NL)			
Poland (PL)	1		
Portugal (PT)	1		
Romania (RO)	4		0
Slovakia (SK)	1		
Slovenia (SI)			
Spain (ES)	2		
Sweden (SE)			
United Kingdom (UK)			
<b>Total staff</b>	<b>27</b>	<b>5</b>	<b>7</b>

The inherent difficulty in attracting applicants from some countries is due to a combination of several factors that make conditions adverse in comparison with their countries of origin, for example Sweden, the United Kingdom or Germany. These factors include the relatively high costs of accommodation for foreigners, the long distance from many places of origin of the Agency staff members and high cost of transportation to reach them, the general labour conditions that make it difficult for family members of eu-LISA staff to find a job in the places where they are assigned, and a low correction coefficient in Tallinn.

The issue of geographical balance will continue to be addressed by paying attention to this aspect during the future recruitment processes. The main focus of the selection process will continue to be on the merit of the candidates. However, in the cases where two candidates achieve the same number of points during the evaluation, the nationals of the countries that have not reached the recruitment level in terms of geographical representation will be recommended for recruitment to bring more balance and maintain the diversity already achieved.

## E. Schooling

In accordance with the establishing regulation, the EU Member States hosting eu-LISA provide the best possible conditions to ensure the proper functioning of the Agency, including the multilingual, European-oriented schooling.

Since September 2013, Tallinn has been offering staff members the opportunity for their children to obtain education on the basis of the Accredited European School (type II) curriculum. Twenty-one children of eu-LISA staff attend the European School in Tallinn.

The European School (type II) in Strasbourg was founded in September 2008. Forty-one children of eu-LISA staff members attended the European School in Strasbourg in 2017.

An agreement signed in 2014 with the European Commission for financial contribution to the European Schools in Tallinn and Strasbourg describes the yearly contribution the Agency should pay on the basis of the number of pupils coming from eu-LISA staff.

In both locations, there are also other opportunities to obtain an education based on an international curriculum or on a well-recognised national curriculum in the international sections of the city's secondary schools and international colleges.

To assist staff whose children are aged below 4 years and for whom the European Schools cannot provide care, eu-LISA introduced in 2014 a nursery allowance for the reimbursement of the costs related to the provision of care for small children by kindergartens or nurseries that have signed service contracts with eu-LISA. This initiative will also be continued in future, as it made a positive impact on accepting job offers, especially in Tallinn, where it is relatively difficult to provide this type of assistance to working mothers, even though the number of staff members benefiting from this service has decreased because some children have already reached school age. Twelve staff members used nursery services.

## Annex V: Buildings

Information to be provided per building	Name, location and type of building	Other comment
	eu-LISA, Vesilennuki 5, Tallinn, Estonia	
Surface area (m <sup>2</sup> )	4,397.3	
Of which office space	1,161.4	
Of which non-office space	3,235.9	
Annual rent (EUR)	N/A	
Type and duration of rental contract	N/A	
Host country grant or support	EE built and transferred new HQ for Agency in a non-exchange transaction	
Present value of the building	Fair market value of transferred land at time of transfer: EUR 3.16 MIO Construction value of transferred building property: EUR 8.5 MIO	

Information to be provided per building	Name, location and type of building	Other comment
	18 Rue de la Faisanderie, 67100 Strasbourg, France	This building project, which was initiated in 2014, is in the acceptance phase
Surface area (m <sup>2</sup> )	7,842	
Of which office space	2,100	
Of which non-office space	5,742	
Annual rent (EUR)		On 3.2.2017 the Agency acquired the previously rented modular office containers for EUR 60 k (net)
Type and duration of rental contract	N/A	
Host country grant or support	FR granted entire premises for EUR 1 on 29 May 2013	
Present value of the building	Building value: EUR 653,093 (net book value as of 31/12/2017)	

	Land value: EUR 1,665,315 (net book value as of 31/12/2017) Building under construction: EUR 18,987,421.94 (book value as of 30/09/2018)	
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Information to be provided per building	Name, location and type of building	Other comment
	Austrian Central Federal Back-Up Centre in St Johann im Pongau, Austria	Backup facility
Surface area (m <sup>2</sup> )	626	
Of which office space	223	
Of which non-office space	403	
Annual rent (EUR)	591,328	Operational expenditure
Type and duration of rental contract	Indefinite operational agreement with the Republic of Austria	
Host country grant or support	N/A	
Present value of the building	Data not available	

Information to be provided per building	Name, location and type of building	Other comment
	eu-LISA Liaison Office, 20 avenue d'Auderghem, 1040 Brussels. 98 m <sup>2</sup> (four offices on second floor)	
Surface area (m <sup>2</sup> )	98	
Of which office space	98	
Annual rent (EUR)	20,433	
Type and duration of rental contract	Rent agreement	
Host country grant or support	N/A	

Present value of the building	N/A	
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### *Building project in Strasbourg*

This building project, which was initiated in 2014, is in the acceptance phase.

#### *New building project in Strasbourg*

The Agency expects a further significant increase in the staff count (as well as contractors regularly present on the site) as a result of the new systems and tasks assigned to it. Based on current information, the staff in the Strasbourg operational site will grow from 158 in 2018 to 287 in 2022, an increase that is incompatible with the size of the operational site even after the reconstruction project is finalised. On top of statutory staff mentioned above, the Agency provides working space for the daily presence of various contractors. It is expected that up to 140 contractors will be present on the site. Therefore, eu-LISA will ensure up to 427 working spaces at the operational site in Strasbourg. Moreover, as a result of eu-LISA's extended mandate — the new systems that will be entrusted to the Agency and the new services that will be made available to the Member States — there is a need for greater data centre capacity than exists today, or could have been thought necessary in 2014, when the first building project was designed. In addition, significant changes are expected to the systems already managed by eu-LISA.

Considering the experience gained and lessons learned from the current reconstruction project, eu-LISA intends to delegate design related to the building project to a contracting authority, selected via a procurement procedure. The delegated contracting authority will be given a mandate contract to act on behalf of the Agency and to manage the project as a whole, replacing eu-LISA as the project holder, from which it will receive guidelines and instructions on the objectives to be achieved. Reconstruction works will be executed in the following years by a third party, selected through a separate procurement procedure.

The feasibility study presented to the Management Board in 2017 provided indications regarding a provisional project timeline and budget. However, a more detailed assessment and studies are to be undertaken as part of a business case, which, at the time of writing this document, is in progress, and will be presented in November 2018.

#### *Building project headquarters in Tallinn*

A decision was made on a new building for the permanent headquarters of eu-LISA in Tallinn, Estonia. The building was handed over on 6 July 2018 by the Estonian Ministry of the Interior. The project expenses were covered by the Estonian government, confirmed by a government decision. eu-LISA started its everyday business in the new headquarters on 16 July 2018.

## Annex VI: Privileges and immunities

Agency privileges	Privileges granted to staff	
	Protocol of privileges and immunities/diplomatic status	Education/day care
<p>eu-LISA's statutory staff in Tallinn, provided they are not permanent residents of Estonia before taking up their appointment in the Agency, will receive reimbursement from the Estonian government of a sum equal to the VAT paid for the purchase of goods in Estonia (limited to a specific list of goods) during a period of 1 year from taking up duties at the Agency in Tallinn to facilitate their establishment in Estonia.</p> <p>eu-LISA's statutory staff in Tallinn and family members forming part of their household are exempt from all compulsory contributions to the Estonian social security scheme insofar as they are covered by the scheme of social security benefits of officials and other servants of the Union</p>	<p>Headquarters Agreement between eu-LISA and the Republic of Estonia, Article 12</p>	<p>An Accredited European School was established in Tallinn in Autumn 2013. The European School provides the type II curriculum at nursery and primary- and secondary-level education.</p> <p>Children from 4 years of age can be admitted to the European School</p>
<p>eu-LISA's statutory staff in Strasbourg and family members forming part of their household are exempt from all compulsory contributions to the French social security scheme insofar as they are covered by the scheme of social security benefits of officials and other servants of the Union. To the extent that they are covered by the social security scheme of their state of origin, seconded experts are also exempt from all compulsory contributions to the French social security scheme</p>	<p>Agreement on the technical site of the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice between eu-LISA and the Government of France, Article 13</p>	<p>The French government committed itself to finding the best possible solution to educate the children of the staff of the Agency and family members forming part of their household and to offering them a primary- and secondary-level education tailored to their individual needs and providing the opportunity to obtain internationally recognised qualifications. The government committed itself furthermore to ensuring that access to the European School of Strasbourg, which offers a baccalaureate recognised by all EU Members States, is guaranteed for the children of Agency staff and members of their families forming part of their household, in accordance with Article 4 of the Accreditation and</p>

Agency privileges	Privileges granted to staff	
	Protocol of privileges and immunities/diplomatic status	Education/day care
		Cooperation Agreement between the Board of Governors of the European Schools and the European School of Strasbourg, signed in Brussels on 24 May 2011.

## Annex VII : Evaluations

### *Ex-ante evaluations*

With regard to the provisions of Article 29(5) of the Framework Financial Regulation, in June 2017, the Management Board, after taking note of the process and collateral documents for ex-ante evaluations, decided to adopt an ex-ante evaluation policy and process and authorised the Executive Director to make further adjustments in the process and collateral documentation as required. The Management Board invited the Executive Director to proceed with the pilot implementation of the process and to report its results in the regular board meeting in November 2017, when a decision would be made on the threshold amount to be applied when choosing activities for ex-ante evaluation.

In November 2017, the Management Board decided to adopt the proposed criteria for selection of projects for ex-ante evaluation as stated in Agency's document 2017-173. On this decision, the following projects, included in PD 2019-2021, will be subject to ex-ante evaluation:

- unified wide area network perimeter — study and design (Section 2.3.1.26);
- implementation of SIS II AFIS Phase 2 (Section 2.3.1.21).

### *Systems performance evaluations*

To evaluate and monitor the performance of the system under the management of eu-LISA and to support the execution of the requirements of Article 12.1(t) of Regulation (EU) No 1077/2011<sup>181</sup> of the European Parliament and of the Council of 25 October 2011 to carry out reports on the technical functioning of SIS II and VIS, the Management Board has approved a standard service-level agreement with document 2013-084.

### *Internal control standards*

The framework of 16 internal control standards, as adopted by the eu-LISA Management Board with its decision 057-2014 of 15 June 2014, is the applied framework of internal control criteria for eu-LISA. The Management Board decision has confirmed the validity of the framework for the organisation and trusted the Executive Director with the implementation of the standards. However, the internal control standards relate to a number of the organisation's business areas, which are all equally important; eu-LISA, while striving to fulfil its objectives resulting from the Agency's planning cycle, seeks to achieve and maintain compliance with ICSs to demonstrate good governance in its actions and activities and towards its stakeholders. According to the annual procedure, the Agency's Internal Control Coordinator will meet eu-LISA's managers and staff with ICS-related functions (e.g. Data Protection Officer) at the beginning of 2019 to evaluate the outcomes of 2018 ICS activities and to set up the individual lists of measures in order to further achieve or to maintain compliance with eu-LISA's internal control standards in 2019.

The following table shows the 16 internal controls standards with their rationale.

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<sup>181</sup> Replaced by the new eu-LISA legal basis, Article 19.1(ff) of Regulation (EU) No 2018/1726 of the European Parliament and of the Council of 14 November 2018.

Number	Title	Definition
ICS 1	Mission	eu-LISA's raison d'être is clearly defined in up-to-date and concise mission statements developed from the perspective of the eu-LISA's customers.
ICS 2	Ethical and Organisational Values	Management and staff are aware of and share appropriate ethical and organisational values and uphold these through their own behaviour and decision-making.
ICS 3	Staff Allocation and Mobility	The allocation and recruitment of staff is based on eu-LISA's objectives and priorities. Management promote and plan staff mobility to strike the right balance between continuity and renewal.
ICS 4	Staff Evaluation and Development	Staff performance is appraised annually. Adequate measures are taken to develop the skills necessary to achieve the objectives set.
ICS 5	Objectives and Performance Indicators	eu-LISA's objectives are clearly defined and updated when necessary. These are formulated in a way that makes it possible to monitor their achievement. Key performance indicators are established to help management evaluate and report on progress made in relation to their objectives.
ICS 6	Risk Management Process	A risk management process that is in line with applicable provisions and guidelines is integrated into the annual activity planning.
ICS 7	Operational Structure	eu-LISA's operational structure supports effective decision-making by suitable delegation of powers. Risks associated with eu-LISA's sensitive functions are managed through mitigating controls and ultimately staff mobility. Adequate IT governance structures are in place.
ICS 8	Processes and Procedures	eu-LISA's processes and procedures used for the implementation and control of its activities are effective and efficient, adequately documented and compliant with applicable provisions. They include arrangements to ensure segregation of duties and to track and give prior approval to control overrides or deviations from policies and procedures.
ICS 9	Management Supervision	Management supervision is performed to ensure that the implementation of activities is running efficiently and effectively while complying with applicable provisions.
ICS 10	Business Continuity	Adequate measures are in place to ensure continuity of service in the event of 'business-as-usual' interruption. Business continuity plans are in place to ensure that eu-LISA is able to continue operating to the extent possible whatever the nature of a major disruption.
ICS 11	Document Management	Appropriate processes and procedures are in place to ensure that eu-LISA's document management is secure, efficient (in particular as regards retrieving appropriate information) and complies with applicable legislation.
ICS 12	Information and Communication	Internal communication enables management and staff to fulfil their responsibilities effectively and efficiently, including in the domain of internal control. Where appropriate, eu-LISA has an external communication strategy to ensure that its external communication is effective, coherent and in line with the Commission's key political messages. IT systems used and/or managed by eu-LISA (where eu-LISA is the system owner) are adequately protected against threats to their confidentiality and integrity.
ICS 13	Accounting and Financial Reporting	Adequate procedures and controls are in place to ensure that accounting data and related information used for preparing the organisation's annual

		accounts and financial reports are accurate, complete and timely.
ICS 14	Evaluation of Activities	Evaluation of expenditure programmes, legislation and other non-spending activities are performed to assess the results, impacts and needs that these activities aim to achieve and satisfy.
ICS 15	Assessment of Internal Control Systems	Management assess the effectiveness of eu-LISA's key internal control systems, including the processes carried out by implementing bodies, at least once a year.
ICS 16	Internal Audit Capability	eu-LISA has an Internal Audit Capability (IAC), which provides independent, objective assurance and consulting services designed to add value and improve the operations of eu-LISA.

## *Action plan on the findings of evaluation of the Agency*

**2016-141**

<b>From</b>	Executive Director
<b>To</b>	Members of the Management Board
<b>Prev. Doc.</b>	-
<b>Subject</b>	Report on findings of evaluation of the Agency

## 1. Introduction

The European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA or the Agency) was set up in 2011 by Regulation 1077/2011 and became operational on 1 December 2012. The establishment of the Agency aimed to provide a long-term solution for the operational management, at European Union (EU) level, of large-scale IT systems in the area of freedom, security and justice — existing and future.

eu-LISA currently manages the Visa Information System (VIS), the Schengen Information System (SIS) and Eurodac. These systems are essential for normal functioning of the Schengen area, for efficient border management of its external borders and for the implementation of common asylum and visa policies of the EU. Furthermore, availability of these systems is one of the measures to guarantee freedom of movement of EU citizens within the Schengen area. In the future, eu-LISA may also be made responsible for the development, implementation and operational management of other large-scale IT systems in the justice and home affairs (JHA) domain — the Entry/Exit System (EES), the European Travel Information and Authorisation System (ETIAS), etc. — as long as relevant legal instruments are adopted by co-legislators.

In accordance with Article 31(1)<sup>182</sup> of the establishing regulation, the Commission carried out the first evaluation of the Agency within 3 years of the start of its operations, supported by an external contractor (Ernst and Young (EY)). Evaluation has been carried out in close cooperation with the Management Board (MB) of eu-LISA and the Agency itself.

The evaluation has been delivered over a period of 1 year (from March 2015 to March 2016) and covered the period from 1 December 2012 to 30 September 2015. On the basis of the evaluation, the Commission, after consulting the Management Board, will issue recommendations regarding changes to the establishing regulation of the Agency. These recommendations together with the opinion of the Management Board will be provided to the European Parliament, the Council and the European Data Protection Supervisor.

This document provides action plans for individual recommendations resulting from evaluation. These action plans address the question: **what** actions does the Agency intend to implement to address the recommendations? **How** these actions will be implemented will be determined by operational decisions of the Agency once the action plans are adopted.

**Proposed action plans address only those recommendations that do not require changes in the establishing regulation of the Agency.**

## 2. Overview of findings of the evaluation

The evaluation confirmed that the Agency adds value to Member States and the EU as a whole, being responsible for the operational management of large-scale IT systems in the area of freedom, security and justice. In addition, the evaluation found that the Agency effectively fulfils its mandate, laid down in the regulation, and is able to assume the new tasks entrusted to it in an efficient and effective manner. It also found that eu-LISA effectively contributed to the establishment of a more coordinated, effective and coherent management of large-scale IT systems, thus supporting the implementation of relevant JHA policies.

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<sup>182</sup> eu-LISA Regulation of 25 October 2011

At the same time, the evaluation identified certain opportunities for improvement from operational, process and organisational points of view. The vast majority of these opportunities can be addressed through structural, organisational and/or staffing changes and/or changes to eu-LISA's working practices and documents. The evaluation also identified the possible need for revision or extension of the tasks entrusted to eu-LISA in the establishing regulation and other relevant legal instruments.

### 3. Recommendations of evaluation and their follow-up

In the evaluation report there are 65 recommendations provided. They look at opportunities on improvements related to the present tasks of the Agency as well as on the possibility of enlarging the Agency's mandate to increase its added value, taking into account possible future needs of the EU and Member States.

Each recommendation has an assigned rating (critical, very important, important, minor) where ratings are assigned while considering the necessity of and time required for implementation. The impact of recommendations has been analysed from financial, legal and organisational perspectives also.

Representation and review of the recommendations made by the Agency in this report follows the logic of the evaluation report. Recommendations have been split into two major groups:

- recommendations with a legal impact (11 recommendations in total);
- recommendations with an organisational and/or financial impact (54 recommendation in total).

Recommendations in the second group can be further broken down:

- 7 critical;
- 10 very important;
- 30 important;
- 7 minor.

The Agency performed its analysis introducing three criteria:

- possibility of the Agency implementing the recommendation (can be implemented, cannot be implemented)
- status of implementation (implemented, in progress, to be implemented)
- horizon of implementation (short term, mid-term, long term)

Based on these, a summary of the position of the Agency with regard to recommendations from the second group is as follows:

- 21 of the recommendations have already been implemented in parallel and independently from the evaluation process;
- 15 of the recommendations are in the process of implementation, where implementation started independently from findings of the evaluation report;
- 15 of the recommendations are accepted by the Agency and will be implemented in the short or mid-term;
- 3 of the recommendations the Agency cannot implement.

***Present document provides individual action plans for recommendations from the second and third groups in Annex I.***

### 4. Conclusion

This document details the modalities of implementation of each of the recommendations, considered accepted by eu-LISA. Depending on the nature of the activities (short vs long term), they will be further incorporated in the annual planning of the Agency.

It is noted that the major challenge for the Agency with regard to implementation of the recommendations from the evaluation report will be to allocate necessary internal resources. The Agency would also like to recall that implementation of the action plan will overlap with implementation of strategic initiatives such as the Entry/Exit System and some others (Eurodac recast, ETIAS, etc., subject to the adoption of the relevant legal instruments). Therefore, it is highly likely that the Agency will need support with human resources to be able to deliver all necessary tasks related to the implementation of recommendations, keeping focus at the same time on operational activities and strategic initiatives.

### **Annex I: Action plans for individual recommendations**

1. **Recommendation R 3.5:** *Although a disaster recovery plan (DRP) and business continuity plan (BCP) exist per system, the Agency should ensure that all eventual scenarios (e.g. necessity to transfer all three systems to the backup site at the same time) should be taken into account for their definition at organisational level. The sequence of switch over/switch back between the three systems should be formally defined and agreed by the Management Board. The organisation currently being implemented for DRP and BCP should be aligned with the operational needs of Member States and leading industry practices, especially in terms of scope, roles and responsibilities, testing (periodicity, procedures and scenarios) and emergency procedures.*

**Rating:** Critical

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Prepare draft proposal for the sequence of switch over/switch back of all systems during complete transfer of operations to BCU	eu-LISA	January 2017	April 2017		Draft proposal for switch-over sequence
Internal adoption of proposal	eu-LISA	April 2017	May 2017		Adopted draft proposal
Consultation of proposal with advisory groups (AGs)	AGs	June 2017	June 2017	Lack of agreement between AGs on proposal	Agreed draft proposal
Discussion and adoption of the proposal in the MB	MB	November 2017	November 2017	Lack of agreement in the MB	Adopted proposal
Amendment of business continuity (BC) and disaster recovery (DR) plans of the agency as well as standard SLA via written procedure	eu-LISA	November 2017	Q1 2018		Amended BC and DR plans
<b>REMARKS</b>					

The topic will be included in the meeting of the Management Board in November 2017 for discussion and adoption. Prior to this, the proposal will be discussed with advisory groups.

At the same time, the Agency notes that a scenario where switch-over needs to be done on all systems deployed in Strasbourg simultaneously is unlikely to happen. It would mean a total loss of the site and the DRP of the Agency would be activated. It would entail a physical move of staff to the BCU and the activation of the BCU.

2. **Recommendation R3.6:** *In the short term, the Agency should define commonly with the advisory groups (AGs) a realistic and feasible recovery point objective (RPO) and recovery time objective (RTO) for each large-scale IT system.*

Rating: **Critical**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Preparation of draft proposal for RPO and RTO for each system	eu-LISA	February 2017	May 2017		Draft proposal for RTO and RPO
Internal adoption of the proposal on the updated Standard SLA common indicators, including RTO and RPO	eu-LISA	May 2017	June 2017		Adopted draft proposal
Consultations with advisory groups	AGs	June 2017	June 2017	Lack of agreement on proposal in the AGs	Agreed draft proposal
Discussion and adoption of proposal by the Management Board	MB	November 2017	November 2017	Lack of agreement in the MB	Adopted proposal
Amendment of Standard SLA for the systems, BC and DR plans via written procedure	eu-LISA	November 2017	Q1 2018		Amended Standard SLA, BC and DR plans

#### REMARKS

Topic will be included for discussion in the meetings of advisory groups in June 2017 and Management Board in November 2017.

3. **Recommendation R 4.1a:** The Agency should define and implement an activity-based management approach to enhance eu-LISA's planning capabilities and reinforce transparency and accountability, as well as facilitating greater prioritisation and trade-offs by providing accurate data on costs. Technical staff should be involved in developing this approach.

Rating: **Critical**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Prepare terms of reference (ToR) for a study to develop a roadmap for implementation of activity-based management approach	eu-LISA	January 2017	April 2017	Lack of sufficient internal resources to prepare ToR	ToR
Contracting a vendor for the study (preferably via existing FwC)	eu-LISA	May 2017	June 2017		Signed contract
Development of the study	Contractor	June 2017	November 2017	Delay in delivery of the study	Study report and roadmap
Acceptance of the study report and roadmap	eu-LISA	November 2017	December 2017		Accepted report and roadmap
Implementation of the roadmap <sup>183</sup>	eu-LISA	January 2018	December 2019	Lack of sufficient internal resources	Activity-based management approach
REMARKS					
Some major steps have already been made, such as the implementation of an asset management policy and time tracking system. However, it should be noted that human resources in the Agency are organised on a functional basis; therefore, they are used in a horizontal manner and cannot be attributed to a particular system.					

<sup>183</sup> Anticipated implementation period might change as a result of the study.

4. **Recommendation R 6.6:** The Agency should ensure through their accounting system that all costs associated with each system are recorded (staffing costs, maintenance costs, evolution costs) and can be identified per system.

Rating: **Critical**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Prepare terms of reference for a study to develop a roadmap for implementation of activity-based management approach.	eu-LISA	January 2017	April 2017	Lack of sufficient internal resources to prepare ToR	ToR
Contracting a vendor for the study (preferably via existing FwC)	eu-LISA	May 2017	June 2017		Signed contract
Development of the study	Contractor	June 2017	November 2017	Delay in delivery of the study	Study report and roadmap
Acceptance of the study report and roadmap	eu-LISA	November 2017	December 2017	Delay of study; low quality of report	Accepted report and roadmap
Implementation of the roadmap <sup>184</sup>	eu-LISA	January 2018	December 2019	Lack of sufficient internal resources	Activity-based management approach
<b>REMARKS</b>					

<sup>184</sup> Anticipated implementation period might change as a result of the study.

Implementation of recommendation is already in progress. Some major steps have already been made, such as the implementation of an asset management policy and time tracking system. Maintenance and evolution costs are known and reflected in the Agency's annual accounts. However, it should be noted that human resources in the Agency are organised on functional basis; therefore, they are used in a horizontal manner and cannot be attributed to a particular system.

5. **Recommendation R 3.1:** For the incident management and problem management processes, the Agency should strengthen performance monitoring by agreeing on key indicators with the Management Board, such as average time to handle an incident per category, average time to establish a diagnosis and average time to resolve an incident or a problem per category.

Rating: **Very important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Design the draft set of performance indicators	eu-LISA	November 2016	March 2017	Delays due to lack of sufficient internal resources	Draft set of performance indicators
Internal adoption of the draft indicators	eu-LISA	April 2017	May 2017		Draft set adopted
Consult advisory groups on the draft set of indicators	AGs	June 2017	June 2017	Lack of agreement on indicators across AGs	Agreed draft set of performance indicators
Discussion and adoption of the draft set of performance indicators in the MB	MB	November 2017	November 2017		Adopted set of performance indicators
Amendment of Standard SLA for the systems via written procedure	eu-LISA	November 2017	December 2017		Amended Standard SLA
Implement indicators in SMg	eu-LISA	Q1 2018	Q1 2018		Implemented indicators
REMARKS					
Topic will be put forward for discussion in the meetings of advisory groups. Agreed indicators will be included in the Standard SLA as part of the regular reviews performed.					

6. **Recommendation R 3.13:** The maturity of internal practices concerning International Organization for Standardization (ISO) 2700x and Information Technology Infrastructure Library (ITIL) v3 could be further improved for the Agency to efficiently manage all security risks and threats. Particular focus should be on the following:
- a. implementing ITIL v3 performance metrics and security metrics defined by ISO 27004;
  - b. implementing cross-functional architecture management function in charge of the validation of infrastructure and application technology selection and implementation.

Rating: **Very important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Prepare draft proposal for ITIL v3 performance metrics relevant to security as guided by ISO 27007	eu-LISA	March 2017	May 2017		Draft proposal for performance metrics
Internal adoption of proposal	eu-LISA	May 2017	June 2017	Delay in preparation of proposal	Adopted draft proposal
Consultation of proposal with advisory groups	AGs	September 2017	October 2017	Lack of agreement between AGs on proposal	Agreed draft proposal
Discussion and adoption of the proposal in the MB	MB	November 2017	November 2017	Lack of agreement in the MB	Adopted proposal
Implementation of adopted metrics in SM9. Start of regular reporting	eu-LISA	Q1 2018	Q2 2018		Implemented metrics. Standard reports delivered regularly
REMARKS					
<p>It is noted that with implementation of Service Manager 9 in the Agency, relevant performance metrics and indicators have also been defined and implemented. The same should be done for the security function.</p> <p>As far as architectural function is concerned, owing to limitations of the present establishment plan it can be implemented <b>only</b> if the Agency receives additional staff.</p>					

7. **Recommendation R 4.4:** The Agency should ensure that all key performance indicators (KPIs) listed in the work programs are systematically monitored and reported on in Agency reporting documents and internally at regular intervals. All KPIs that should be developed under R 3.12 should also be included.

Rating: **Very important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Agency to finalise revised set of corporate KPIs	eu-LISA	Q1 2017	Q1 2017	Delay due to resource constraints	Revised set of corporate KPIs
Adoption of revised set of corporate KPIs by the Management Board	MB	Q1 2017	Q1 2017	Lack of agreement on the set in the MB	Adopted set of corporate KPIs
Incorporation of corporate KPIs in the consolidated annual Activity Report of the Agency.	eu-LISA	Q1 2017	N/A	Revised corporate KPIs as proposed by eu-LISA are currently not yet adopted by MB	KPI data integrated into AAR
REMARKS					
Bi-annual reports have been amended to incorporate defined operational KPIs. In addition, performance indicators of IT processes are in the process of development. They will be incorporated into regular SLA compliance reporting. Last, but not least, the set of corporate KPIs is in the process of finalisation, subject to adoption by the Management Board.					

8. **Recommendation R 4.26:** The Agency should define a sourcing strategy. Based on such as strategy, the procurement strategy and principles for involving outside competences should be defined.

Rating: **Very important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Finalisation of sourcing strategy Phase 1	eu-LISA	Q4 2016	Q4 2016	Delay in the work of the contractor	Final draft of the sourcing strategy for corporate IT

Developing roadmap for implementation	eu-LISA	Q1 2017	Q1 2017	Delays due to resource constraints	Implementation roadmap
Preparation of procurement documentation for outsourcing	eu-LISA	Q2 2017	Q3 2017	Delays due to resource constraints	Procurement documentation
Procurement procedure for outsourcing	eu-LISA	Q4 2017	Q2 2018	Complexity of the procedure delays finalisation	Awarded outsourcing contract
Launch of Phase 2 of development of the sourcing strategy	eu-LISA	Q2 2017	Q4 2017		Final draft of the sourcing strategy for core system operations
Presentation and adoption of the sourcing strategy for the core systems to the MB	MB	Q1 2018	Q1 2018	Lack of agreement in the MB	Adopted sourcing strategy for the core systems

#### REMARKS

Phase 1 concerns sourcing of corporate IT services. Phase 2 concerns sourcing of core system operations and depends on the finalisation of the Agency's technology strategy and service strategy.

It should be noted that implementation of the sourcing strategy is a continuous process. For this reason, it is not possible to establish a due date for its implementation.

9. **Recommendation R 4.31:** The Agency should ensure that the wealth of expertise within advisory groups is better exploited. To do so, the Agency should increase the number of points for dialogue in the advisory groups agenda, with the advisory groups adequately informed of the impacts of future projects.

Rating: **Very important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Recommendation has already been implemented.					
REMARKS					

Agenda of advisory groups has been further refined and split into A points (for information, no discussion) and B points (for discussion and decision). That change allows more time for discussion on substantial topics in the advisory groups and better use of relevant expertise of their members.

10. **Recommendation R 3.2:** The Agency should consider including a sufficient level of data quality controls to ensure all information is completed, such as formatting and completion controls (homogeneous formats for date, status, application or IT environment impacted, etc.) in the IT service management (ITSM) tool being implemented in replacement of Service Manager 7 (SM7)

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Design and implementation of continuous service improvement (CSI) process.	eu-LISA	Q2 2017	Q4 2017		
Design of the CSI process	eu-LISA	April 2017	June 2017	Delay in launching of design due to lack of resources	Final draft of the eu-LISA CSI process
Internal agreement on CSI process	eu-LISA	June 2017	September 2017	Delay due to lack of agreement	Internally agreed process
Implementation of the CSI process	eu-LISA	November 2017	Q1 2018	Delay due to lack of resources	CSI process in place

SM 9 has been implemented in the Agency. A number of controls have already been implemented. Next steps include incorporation on the platform vendors of the Agency and Member States. The objective is to provide a universal service management platform in the Agency, providing an end-to-end view on service status.

11. **Recommendation R 3.3.4:** Within the framework of the Service Desk activities, the Agency should implement a feedback process to obtain regular feedback from Member States regarding the support provided by the Agency.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Prepare a proposal to amend eu-LISA Standard SLA, including a chapter on the Stakeholder Satisfaction Survey.	eu-LISA	February 17	April 2017	Delays in development of the proposal	Draft proposal for the new chapter on the feedback process
Internal adoption of the proposal	eu-LISA	April 2017	May 2017		Draft proposal adopted
Consultations with advisory groups	AGs	June 2017	June 2017	Lack of agreement on the proposal in the AGs	Agreed draft proposal
Discussion and adoption of proposal in the Management Board	MB	July 2017	December 2017		Adopted proposal for amendment of the Standard SLA
Amendment of Standard SLA with a new chapter on the feedback process	eu-LISA	November 2017	February 2018	Lack of agreement on the proposal in the AGs	Amended Standard SLA

#### REMARKS

The Agency already has this process in place, organising at the beginning of every year a customer satisfaction survey of all the Member States for all the systems. The results from the survey are presented during the AGs meetings together with the lessons learnt as well as with the proposed actions to improve overall satisfaction. eu-LISA will include a new chapter for the feedback process (based on the customer satisfaction survey) in the planned update of the eu-LISA Standard SLA.

12. **Recommendation R 3.8:** In the long term, the Agency should consider implementing a dynamic allocation mechanism for VIS capacity to adapt to changing capacity needs.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Continuous monitoring and evaluation of VIS capacity utilisation and performance in relation to	eu-LISA	2012	N/A	Resource constraints prevent the Agency from	Regular reports on performance and capacity status of the VIS

the Member States' needs and actual use of the system				planning necessary capacity upgrades	
Regular dialogue with Member States in advisory groups to continuously align capacity projections with actual needs	AGs	2013	N/A	Lack of reliable data to quantify capacity needs	Agreed projections for capacity needs of the system

#### REMARKS

It is noted, however, that the recent evolution of VIS increased significantly the throughput both of VIS and BMS. Therefore, there are no capacity bottlenecks in the system. Nevertheless, the Agency will continue to proactively monitor and forecast the capacity needs of the systems and will consider the implementation of a dynamic allocation mechanism if required in the future.

Finally, it is noted that the implementation of such a mechanism might require changes to the legal basis for the VIS system, as capacity quotas for Member States are explicitly defined.

13. **Recommendation R 3.12:** The Agency should continue its commendable efforts to strengthen internal processes and procedures in line with ITIL v3 best practices. In particular, the monitoring of implemented IT processes' performance should be strengthened by the identification and implementation of appropriate KPIs such as number of infrastructure incidents reopened, infrastructure incidents repeat rate, number of infrastructure problems in pipeline and number of implemented changes to the infrastructure.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
<b>Implementation of this recommendation depends on the action plan for recommendation R 3.2.</b>					
Study for development and implementation of advanced reporting tool	eu-LISA	September 2017	November 2017	Delay in the launch of the study	Study report and recommendations
Implementation of the advanced reporting tool	eu-LISA	February 2018	June 2018	Poor quality of study report Lack of resources to implement the reporting tool	Regular reporting of operational KPIs

## REMARKS

14. **Recommendation R 3.18:** The Agency should enforce its data protection support in Strasbourg by either reallocating the Data Protection Office (DPO) to Strasbourg or assigning a deputy DPO in Strasbourg to assist with data protection matters.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Plan a CA post in Strasbourg for the role of deputy DPO in staff planning for 2018	eu-LISA	November 2016	December 2016	Total number of requested CA posts significantly reduced	N/A
Request approval from the Management Board to recruit the post already in 2017 as a matter of priority	eu-LISA	March 2017	March 2017	MB doesn't grant permission	N/A
Recruitment of deputy DPO	eu-LISA	April 2017	H2 2018	Lack of suitable candidates	Deputy DPO deployed in Strasbourg

## REMARKS

It should be noted that transfer of DPO posts from Tallinn to Strasbourg is not feasible. The DPO function is part of the portfolio of the HQ of the Agency. Therefore, the Agency will aim to establish and source the post of deputy DPO in Strasbourg.

15. **Recommendation R 3.21:** The Agency should reinforce the quality and clarity controls related to the reports and documents produced (e.g. annual reports, statistical reports).

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Review of concerned processes to embed sufficient additional quality controls of statutory reports	eu-LISA	Q3 2017	Q4 2017	Resource constraints prevent accomplishment of the task on time	Proposal for improvement of concerned processes
Adoption of proposal by the Management Committee	eu-LISA	Q4 2017	Q4 2017		Adopted proposal
Implementation of adopted proposal	eu-LISA	Q1 2018	Q1 2018		Improved quality of statutory reports
REMARKS					
<p>Internal processes related to the planning and preparation of statutory reports have been amended. The Agency introduced into the workflow the publishing of the final versions of the documents. This is required for the documents that the Agency has to produce according to the establishing regulation (Article 12<sup>185</sup>). The additional costs and time needed for this service have been taken into account in planning and workflows. However, the Agency notes the practical difficulty that there is a lack of sufficient native English speakers in the Agency to perform quality checks and a general shortage of staff in horizontal functions in the General Coordination Unit (GCU).</p>					

<sup>185</sup>

eu-LISA Regulation of 25 October 2011.

A possible alternative could be a contract with an external company to perform suggested quality checks. However, considering the volume of documents produced annually, this might incur substantial additional costs for the Agency.

16. **Recommendation R 3.22c:** The Agency should enhance efforts to ensure biannual reporting to the Commission on developments in research relevant for the operational management of SIS II, VIS and Eurodac in accordance with Article 15 of the memorandum of understanding (MoU).

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Plan additional contract agent (CA) post in GCU for the role of research monitoring in staff planning for 2018	eu-LISA	November 2016	December 2016	Total number of requested CA posts significantly reduced	N/A
Request approval from the Management Board to recruit the post in 2017 as a matter of priority	eu-LISA	March 2017	March 2017	MB doesn't grant permission	Increased bandwidth of research and development (R&D) function in the Agency

REMARKS

It should be noted that at present the monitoring of the research function in the Agency is understaffed. Additional human resources should be allocated to the Agency to enable more frequent reports throughout the year on the monitoring of technology.

17. **Recommendation R 3.23:** The Agency should consider improving the visibility of activities performed in the monitoring of research and should enhance its reporting activities planned and in progress, for example quarterly activity reports to advisory groups internally.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Include a standard agenda item (as an A point if needed) in the advisory groups meetings on monitoring of research	eu-LISA	Q1 2017	N/A	N/A	Improved feedback by Member State experts on the activities performed in monitoring of research, enabling continuous improvement
Continue sharing monitoring of research reports (as per recommendation R 3.23) with advisory groups	eu-LISA	Q3 2015	N/A	Appropriate resources may not be in place yet	Improved visibility for Member State experts and authorities of activities performed in the monitoring of research
Notify publication of research reports on the eu-LISA website through agency social media channels and distribute copies, where appropriate, at Agency events such as the annual conference and roundtable	eu-LISA	Q1 2017	N/A	N/A	Improved visibility for the public of activities performed in monitoring of research
REMARKS					

It is noted, however, that the Agency finds quarterly reporting to be too extensive. Instead, the Agency will start distributing monitoring of research reports to the advisory groups and will incorporate them into meeting agendas as appropriate.

18. **Recommendation R 3.31:** The Agency should consult the European Union Agency for Network and Information Security (ENISA) and follow up its recommendations on network security where appropriate, explore further opportunities for cooperation with ENISA and pursue a more active partnership where added value is identified.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Prepare internally draft MoU with ENISA	eu-LISA	May 2016	December 2016		Draft MoU
Consult draft MoU with ENISA	eu-LISA	December 2016	February 2017	Delays in consultation with ENISA	Draft MoU agreed with ENISA
Approve revised draft MoU internally with the Management Committee	eu-LISA	March 2017	March 2017		Draft MoU approved by eu-LISA
Consult draft MoU with Commission	eu-LISA	April 2017	May 2017	Delays in consultation with the Directorate-General for Migration and Home Affairs (DG HOME)	N/A

Sign the MoU with ENISA	eu-LISA	Q2 2017	N/A	Delay in signature of MoU	Signed MoU
REMARKS					
Irrespective of the MoU, cooperation with ENISA is ongoing at expert level. The Agency planned a cybersecurity exercise for VIS in 2017 based on ENISA guidelines. The same will be done for SIS II and Eurodac in the coming years.					

19. **Recommendation R 4.5:** The Agency should streamline the number of objectives included in the annual work programmes to focus them on the most strategic issues.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
At the start of each planning cycle establish planning priorities based on current political and operational situation	eu-LISA	Q1 2016	N/A	Shifting priorities at EU level throughout the planning cycle	Planning priorities
REMARKS					
Start date is in the past because the Agency started this action in 2016.					

20. **Recommendation R 4.7:** The Agency should undertake a review of the procedures in place in coordination between teams in Strasbourg and Tallinn to optimise existing coordination procedures to increase the efficiency in contributing to reporting documents.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Plan a review of the process of preparation of reporting documents	eu-LISA	Q2 2017	Q2 2017		N/A
Perform a review of the process of preparation of reporting documents	eu-LISA	Q4 2017	Q4 2017	Delay in review due to resource limitations	Proposal for amendment of the process
Implementation of proposal	eu-LISA	Q1 2018	Q2 2018		
REMARKS					
The Agency already created a corporate service catalogue, which includes descriptions of present corporate processes. The second phase of this exercise will be to analyse the processes with a view to find possibilities for optimisation.					

21. **Recommendation R 4.20:** The Agency should consider, when revising its current multi-annual strategy or when elaborating a future strategy, placing more focus on the core business of the Agency and providing a greater level of detail.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
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Perform internal review of long-term strategy of the Agency	eu-LISA	April 2017	May 2017	Delays in preparation of the review	Proposal for update of the strategy
Discussion on the proposal in the Management Board	MB	June 2017	June 2017	Lack of agreement in the MB	Consolidated proposal for update of the strategy
Update of the long-term strategy	eu-LISA	June 2017	October 2017	Delay due to resource constraints	Updated long-term strategy
Adoption of updated long-term strategy of the Agency	MB	November 2017	November 2017	Lack of agreement in the MB	Adopted long-term strategy
<b>REMARKS</b>					
Review of the long-term strategy is planned for 2017.					

22. **Recommendation R 4.22:** The Agency and the Commission should anticipate human resources solutions that may be necessary in the future to adapt to the Agency's new responsibilities (e.g. taking responsibility for the Smart Borders project).

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Prepare a proposal for additional staffing of the Agency, neutral to its budget	eu-LISA	Q2 2016	Q3 2016		Proposal for additional staffing based on comparison of costs with

					external support (interimaires)
Present the analysis and concept to the Management Board	MB	November 2016	November 2016	MB disagrees with proposal	Approved concept with identification of fund source
Incorporate proposal in staff planning for 2018	eu-LISA	December 2016	January 2017		Updated staff planning in draft planning document 2018
Present a detailed proposal to the Management Board	MB	February 2017	March 2017	MB disagrees with proposal	Inclusion of the draft planning in the final estimates of revenue and expenditure 2018

## REMARKS

The Agency will propose to the Board the establishment — based on a case-by-case cost-benefit analysis — of contract agent posts to complement its statutory staff, as a financially efficient and more operationally effective way than the current externalisation. Such posts would significantly alleviate the disconnect between expected outcomes/impact and the resources available to the Agency to achieve them. It would also have a significant motivational effect on the staff. It would also provide the Agency with a tool to reinforce business continuity, stability of operation and knowledge retention.

It is noted that the evaluation clearly demonstrated that particular key functions in the Agency — i.e. project management, architecture and security — are understaffed. In addition, for a number of other functions there is no business continuity as long as there is only one person employed in that function.

23. **Recommendation R 4.25:** The Agency should continue efforts to increase the share of procurement and outsourcing across all three systems to achieve greater efficiency gains.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Gradually implement common provisions and metrics for vendor and service management in the large-scale MWO contracts of the Agency	eu-LISA	Q1 2016	N/A		Better vendor management and efficiency of the contracts
Development of a vendor management scorecard	eu-LISA	Q1 2017	Q2 2017	Inability to adapt industry best practices to the specific needs of the Agency	Draft vendor management scorecard
Implement vendor management scorecard	eu-LISA	H2 2017	N/A	Lack of resources to ensure proper vendor management	Improved vendor management
REMARKS					
<p>Start date is in the past since the Agency started this action with the new MWO contract for VIS/BMS. End date is not defined as it depends on the expiry of the other relevant contracts. It is noted, however, that outsourcing might not be the most efficient solution with regard to the operational management of the systems entrusted to the Agency.</p> <p>Depending on how the Agency's tasks change, it might be more efficient to build more internal expertise than to outsource activities. The sourcing strategy of the Agency (presently under development) will address the recommendation in more detail.</p>					

24. **Recommendation R 4.28:** The Agency should implement a formal process aiming at updating and reviewing all processes policies and procedures on a regular basis.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Make a choice of a quality management system (QMS) for the agency	eu-LISA	Q1 2016	Q2 2016		Quality management system chosen
Plan implementation of QMS	eu-LISA	Q3 2016	Q3 2016		Implementation plan prepared
Implementation of QMS	eu-LISA	Q4 2016	Q4 2017	Delays due to resource constraints	QMS implemented
Quality improvement plan for the Agency	eu-LISA	Q4 2017	Q4 2017	Delays due to resource constraints	QMS improvement plan
REMARKS					
Some of the dates are in the past since the Agency initiated work on this recommendation in Q1 2016.					

25. **Recommendation R 4.34:** The Agency should undertake efforts to introduce clearer budgetary reporting regarding the costs associated with the multi-sites to ensure transparent information for the relevant institutions (i.e. European Parliament, European Court of Auditors)

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Revision of budget ventilation/nomenclature in budgetary Title 2 'running expenditure' for the expenditures, which are clearly attributable to a specific site	eu-LISA	December 2016	February 2017		Introduction of further budget or local lines in the 2018 draft budget
Collection of relevant financial data	eu-LISA	February 2017	January 2018		Financial data associated with multi-site set-up of the Agency
Inclusion in the AAR 2017 of a section on costs clearly attributable to a specific site or deriving from the multi-site operation	eu-LISA	Q1 202018	N/A		Financial data associated with multi-site set-up of the Agency included in the annual Activity Report for 2017
REMARKS					
<p>The Agency has already taken steps to incorporate this information in its annual activity reporting.</p> <p>At the same time, the Agency notes that the figures that reporting will disclose might be highly politically sensitive. For example, the analysis would only be meaningful as a scenario: consisting in the Agency be located entirely in one location — the choice of such location cannot be indicated by the Agency itself.</p>					

26. **Recommendation R 5.4:** The Agency should build on existing efforts to ensure, through communication with the Commission, that the monitoring of research activities are in line with other research activities being undertaken at EU level in accordance with Article 15 of the MoU between the Agency and the Commission.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Establish annual bilateral meetings between Agency and Commission to coordinate planning of activities related to monitoring of research	eu-LISA	Q4 2017	N/A	Delays in receiving feedback	Improved feedback from Commission on activities undertaken as well as better planning of activities for the future
Establish regular and close contact with the Joint Research Centre (JRC) to exchange information	eu-LISA	Q3 2016	N/A		Monitoring of research activities in line with broader research activities at EU level
Participate in events at which EU-level research of relevance is described and discussed (e.g. European Research Projects Conference)	eu-LISA	Q3 2015	N/A	Resource constraints might prevent the Agency from participating	Improved knowledge of broader research activities at EU level to take into account when planning
<b>REMARKS</b>					
<p>It should be noted that at present the monitoring of the research function in the Agency is understaffed. Additional human resources should be allocated to the Agency to enable more frequent preparation of monitoring of technology reports throughout the year.</p>					

27. **Recommendation R 6.4:** The Agency should ensure the adoption of a multi-annual work programme and also guarantee the alignment of the Agency's activities with the multi-annual strategy that is in place.

Rating: **Important**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Recommendation is not relevant anymore, considering the opinion of the Commission on the draft Multi-Annual Work Programme (MAWP) of the Agency. MAWP will be incorporated into the single planning document that the Agency produces on annual basis.					
REMARKS					

28. **Recommendation R 3.26:** The impact on resources of assuming the tasks related to DubliNet should be formally assessed, even if the existing legal framework does not allow for a specific budget in the SLA between the Agency and DG HOME.

Rating: **Minor**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Perform assessment of the impact of assuming tasks related to DubliNet	eu-LISA	Q1 2017	Q2 2017		Assessment of impact
Provide a formal notification to DG HOME	eu-LISA	Q3 2017	Q4 2017		N/A

REMARKS

29. **Recommendation R 6.2:** The Agency should include, in 2016, a point for discussion on the agenda for the advisory group meetings to investigate Member State needs in relation to additional services that could be provided by the Agency concerning the operational management of the systems.

Rating: **Minor**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
Include discussion concerning additional services that the Agency can provide to Member States	eu-LISA	February 2017	February 2017	Lack of agreement with the advisory groups regarding the revised service portfolio of the agency	Proposal for additional services that the Agency could provide
Present proposal to the Management Board	eu-LISA	June 2017	June 2017	Lack of agreement within the Management Board Lack of legislative support in due time for such services might diminish the added	Possibility for the Agency to provide additional services reflected in the proposal for amendment of its establishing regulation

				value expected by the Member States	
Finalise service strategy of the Agency	eu-LISA	June 2017	October 2017	Delays due to resource constraints	Service strategy
Implementation of the service strategy according to agreed roadmap	eu-LISA	October 2017	N/A		Additional services for the Member States
<b>REMARKS</b>					
It is emphasised that the Agency considers this recommendation to be <b>very important</b> rather than minor. It touches on the long-term strategy for development of the Agency and the increase of its added value to Member States.					

30. **Recommendation R 6.5:** Where relevant, the Agency should assess, in coordination with DG HOME, the potential for the Agency to provide support in relation to other IT systems in accordance with Article 6 and Article 9<sup>186</sup> of the Agency's establishing regulation.

Rating: **Minor**

ACTION	OWNER	START DATE	DUE DATE	POTENTIAL RISKS	OUTCOME
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<sup>186</sup>

eu-LISA Regulation of 25 October 2011.

Amendment of the establishing regulation of the Agency to enable easier accommodation of management of new systems	COM	Q4 2016	Q2 2017		Proposal for amendment of the ER
Regular dialogue between eu-LISA and COM to identify new opportunities and needs	eu-LISA	N/A	N/A	Irregular dialogue due to resource constraints	Identified opportunities for increase of contribution of the Agency
<b>REMARKS</b>					
This is an ongoing process. Dialogue between the Agency and COM is organised as required whenever there are new legal initiatives or additional needs are identified.					

## Annex VIII: Risks 2019<sup>187</sup>

Risk 1	Targeted and successful external cyberattack towards the eu-LISA public infrastructure.
Risk 2	Lack of sufficient and appropriate security and change controls corporate IT strategy.
Risk 3	Challenging staff management due to complex requirements of new initiatives, systems and environments. Also, present market competition endangers opportunities for eu-LISA to hire the necessary talent.

Risk <sup>188</sup>	Response	Risk owner
Risk 1	Mitigate, following the eu-LISA security and continuity strategy: 1) browser and email hardening: task included in WP 2018; 2) preparation of SIEM implementation in cooperation with corporate IT; 3) assessment of security monitoring and response to set up the continuous security monitoring and response capability — following point (2); 4) see point (4) in risk 2: define incident and security incident management processes.	Head of the Security Unit
Risk 2	Mitigate: 1) Review of the corporate IT strategy to reflect the requirements of the technology strategy and service strategy; 2) Review of the current system architecture of the corporate IT, including security architecture. The architecture should be aligned with the newly introduced Enterprise Architecture. 3) Analyse major areas of risk that could impact security and BC (including review of the business impact assessment). 4) Define incident and security incident management processes. This action also applies to risk 4.	Head of the Corporate Services Department/Head of the Security Unit
Risk 3	Mitigate, recruiting and maintaining the right staff and talent for the organisation: Use the valid reserve list to shorten the recruitment delay and recurrently review it during the year. Inform people that were not hired for a specific project that they are still on the reserve list. 1) Intensify the on-boarding programme: - mix newly hired people with existing staff members who have knowledge of the systems and corporate processes implemented in eu-LISA; - adapt and shorten the training (on systems and project management) sessions. 2) Apply a 'lessons learned' approach: use former experiences to improve the recruitment process for new projects (content of vacancy notice, recruitment for reserve list prior to the establishment of the legal basis). 3) Ensure that the post descriptions are strategically developed to include the skills and competencies required to cover new initiatives and systems.	Head of the Human Resources Unit

<sup>187</sup> As estimated in 2017.

<sup>188</sup> The ranking of risks follows the outcome of the 2017 risk assessment efforts.

## Annex IX: Procurement plan 2019

The present annex includes tenders planned this year in direct support of operational activities included in the programming document/financial statement, with an estimated value above EUR 144,000. When available, information is also provided for non-operational tenders.

The plan does not include specific contracts issued through framework contracts awarded by the Agency, the European Commission or other EU institutions.

Number	PD reference	Subject	Type of procedure	Contract type	Duration of contract (years)	Estimated multi-annual value (MIO EUR)	Estimated value in 2019 (MIO EUR)	Indicative quarter for launch	Comments
1	2.1.3; 2.2.4.1	Training services for eu-LISA staff and Member States	Open	FWC	4	2.5	0.625	Q1 2019	
2	2.3.1.34	Implementation of ETIAS	Restricted	FWC	4	95 <sup>189</sup>	TBC	2019	First phase of the restricted procedure. The launch of the tender is subject to the adoption of the legal basis
3	2.1.3	External support services	Open	FWC	4	TBC	TBC	Q1 2019	
4	Multiple	Operational quality assurance	Open	FWC	4	15.2	TBC	Q2 2019	Quality assurance services should be procured horizontally and embedded in operational activities

<sup>189</sup> The amount is based on the Legislative financial statement to the Proposal for a Regulation of the European Parliament and the Council establishing a European Travel Information and Authorisation System (ETIAS) and amending Regulations, (EU) No 515/2014, (EU) 2016/399, (EU) 2016/794 and (EU) 2016/1624. The awarded amount may differ from this value.

5	2.1.3	Health and safety policy	Open	FwC	4	0.5	0.125	Q1 2019	
6	2.1.5	Integrated maintenance services of eu-LISA's building and technical infrastructure in its operational site in Strasbourg	Restricted	Direct	4	2.25	0.56	Q1 2019	

## Annex X: Organisation chart 2019

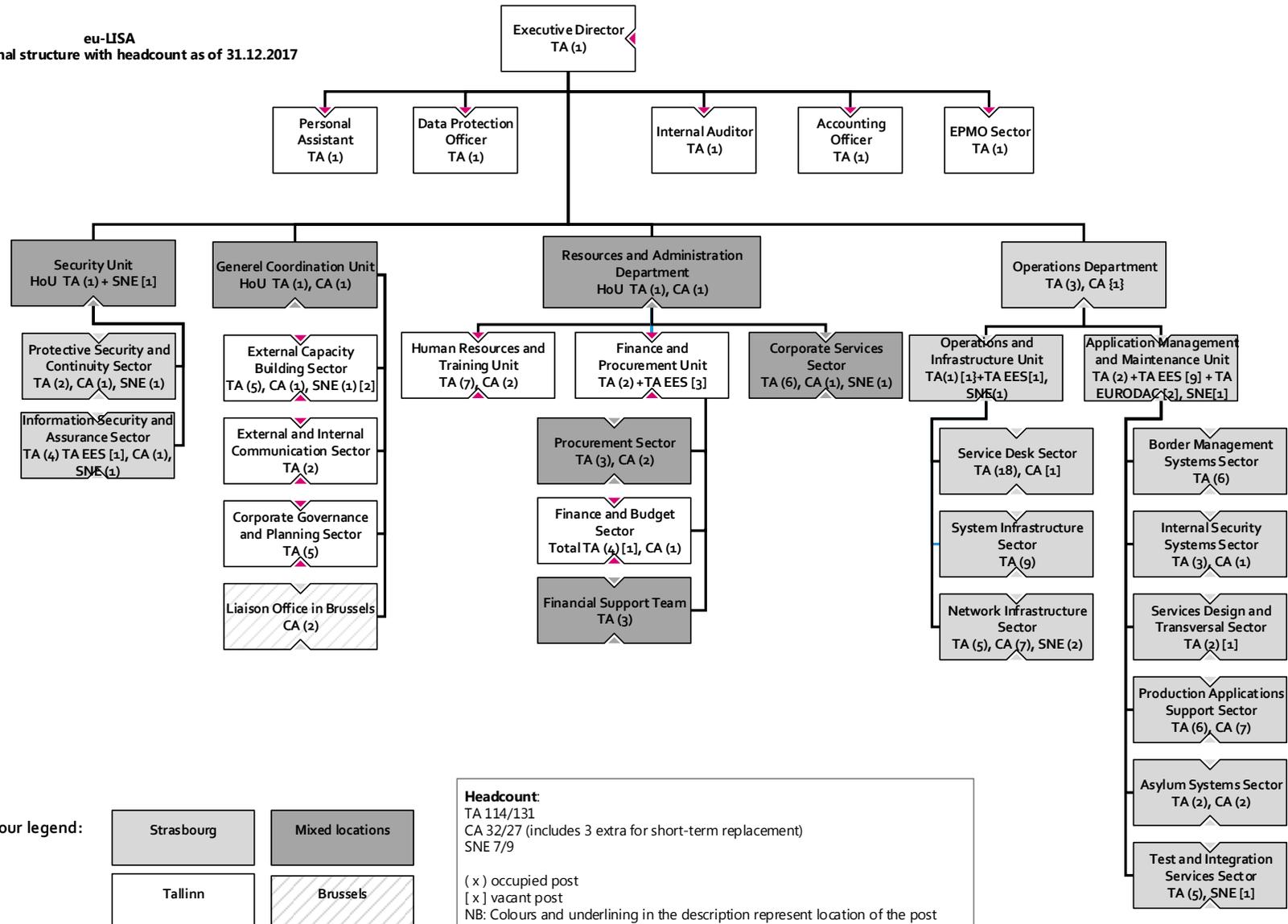
In 2017, the following changes were made to the organisational structure of eu-LISA, affecting the headcount.

The post of Advisor to the Executive Director that was created in 2016 became vacant and was changed back to the post of Head of the HRU. However, the duties of the Head of the HRU continued to be allocated to the Head of the Corporate Services Department for the majority of 2017.

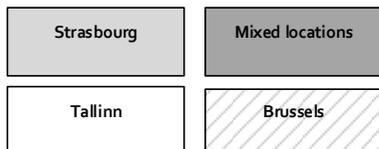
The organigram shows the situation on 30 October 2017 but should show the situation on 31 December 2017. Therefore, it will be adjusted in January 2018, should the situation change.

For each organisational cell of eu-LISA, the organigram presents the number of the posts in brackets and number of vacant posts in square brackets.

**eu-LISA**  
Organisational structure with headcount as of 31.12.2017



Colour legend:



**Headcount:**  
 TA 114/131  
 CA 32/27 (includes 3 extra for short-term replacement)  
 SNE 7/9

(x) occupied post  
 [x] vacant post  
 NB: Colours and underlining in the description represent location of the post

## **Annex XI: Standard SLA**

In 2013, the Management Board of eu-LISA adopted document **2013-084 Standard SLA for IT systems managed by eu-LISA**, which defines the services provided by eu-LISA to the Member States within its mandate.

## **Annex XII: Common service-level indicators**

The common service-level indicators applicable for all large-scale IT systems are described in eu-LISA's **Service-Level Management Policy, Annex 2: SLA report requirements**.