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SINGLE PROGRAMMING DOCUMENT 2020-2022

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2020-2022

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Foreword

The aim of the Single Programming Document 2020-2022 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 to guide and streamline the Agency's efforts in 2020, as well as to provide a longer-term view – until 2022 – of planned activities and projects for its internal and external stakeholders. It has been designed to align financial and human resources with the legally-binding activities stemming from the Agency's establishing Regulation and with the strategic goals and objectives set in the Agency's long-term strategy.

For 2020, the Agency has established two high-priority areas:

Core business priorities:

- maintaining a high level performance and availability in the systems;
- implementing recast requirements for core business systems;
- developing new systems;
- implementing the regulations on interoperability¹;
- executing the second phase of the reconstruction of the site in Strasbourg, including the data centre.

Horizontal organisational priorities:

- increasing the added value of the Agency's quality management system and ensuring systematic and effective corrective and improvement actions in the area of compliance²;
- strengthening, developing and embedding the strategic business continuity framework into the organisational fabric;
- developing the learning environment and culture, developing HR's role in business partnerships and strengthening staff development and retention;
- continuing the roll-out of the competency model to ensure that 'the right people are in the right job';
- consolidation of the Agency following change, growth and transformation.

The primary objective of this single programming document is two-fold: firstly, it will provide eu-LISA's staff with guidance on the Agency's priorities and assist the various departments, units and sectors in the planning of their work, taking into consideration the Agency's revised establishing Regulation³; secondly, it will provide the Agency's stakeholders with visible assurance that eu-LISA takes a structured and consistent approach towards the implementation of its mandate. As a secondary objective, the document will serve as a basis for the financing decisions for the Agency's activities in the programming period.

¹ Regulation (EU) 2019/817 and Regulation (EU) 2019/818, OJ L 135, 22.5.2019, p. 27-135.

² Compliance with the requirements of the Common Assessment Framework (CAF).

³ 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 and acronyms

AFIS	Automated Fingerprint Identification System
AG	Advisory Group
BCU	Backup Central Unit – backup centre in St. Johann im Pongau
BMS	Biometric Management System
CA	Contract Agent
CAF	Common Assessment Framework
CBS	Core business systems operated by eu-LISA
CIR	Common Identity Repository
CRRS	Common Repository for Reporting and Statistics
CS	Central System
CSD	Corporate Services Department
CSI	Common Shared Infrastructure
CSS	Common Shared Services
CSU	Corporate Service Unit
CU	Central Unit – the main data centre in Strasbourg
DAS	Dublin Automated System
DC	Data Centre
DCC	Data Consistency Check
DG DIGIT	Directorate-General for Informatics
DP	Data Protection
DPO	Data Protection Officer
DubliNet	Communication network for Eurodac
EASO	European Asylum Support Office
ECRIS-TCN	European Criminal Records Information System – Third-Country Nationals
EES	Entry/Exit System
EPMO	Enterprise Project Management Office
ESP	European Search Portal
ETIAS	European Travel Information and Authorisation System
EU	European Union
Eurojust	European Union's Judicial Cooperation Unit
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's law enforcement agency
EUWS	End User Work Station
FG	Function Group
FPU	Finance and Procurement Unit
Frontex	European Border and Coast Guard Agency
FTE	Full-Time Equivalent
FwC	Framework Contract
GCD	General Coordination Department
GCU	Governance and Capabilities Unit
HQ	Headquarters
HR	Human Resources
HRU	Human Resources Unit
IA	Impact Assessment

IAC	Internal Audit Capability
IAS	Internal Audit Service of the European Commission
ICD	Interface Control Document
ICF	Internal Control Framework
ICT	Information and Communication Technology
IMU	Infrastructure Management Unit
ITIL	Information Technology Infrastructure Library
ITM	In the Mountain (applies to BCU equipment)
ITSM	Information Technology Service Management
JHA	Justice and Home Affairs
KPI	Key Performance Indicator
LO	Liaison Office
MB	Management Board
MC	eu-LISA's Management Committee
MID	Multiple Identity Detector
MoU	Memorandum of Understanding
MWO	Maintenance in Working Order
NIST	National Institute of Standards and Technology
NS	National Systems
NTE	New Test Environment
OD	Operations Department
OJ	Official Journal
OTM	Out of the Mountain (applies to BCU equipment)
SPD	Single programming document
PKI	Public Key Infrastructure
PPE	Pre-Production Environment (platform)
PPU	Program and Project Delivery Unit
PRD	Production Platform
PSU	Planning and Standards Unit
sBMS	shared Biometric Matching Service
SEC	Security Unit
SIS	Schengen Information System
SIRENE	Supplementary Information Request at the National Entries
SLA	Service Level Agreement
SNE	Seconded National Expert
SOU	Systems Operations Unit
SYSPER	Information system considered to cover all needs concerning the treatment of information for the Commission's management of Human Resources
TA	Temporary Agent
TESTA	Trans European Services for Telematics between Administrations
TESTA-ng	Trans European Services for Telematics between Administrations – new generation
TST	Test Environment
TTU	Test and Transition Unit
ULM	Unlimited Licence Model: contract between the Commission and Oracle for an unlimited usage of some Oracle licences.
VIS	Visa Information System

VIS Mail	Communication mechanism – allows for the transmission of messages between the Member States using the VIS network infrastructure
WAN	Wide Area Network

Mission statement⁴

Our mandate

The European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice was established in 2011 by Regulation (EU) No 1077/2011 and became operational on 1 December 2012. The Agency was established to provide a long-term solution for the operational management of present and future large-scale IT systems in the area of freedom, security and justice at EU-level. On 11 December 2018, a new regulation – 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 – entered into force and expanded the Agency's mandate. This new mandate strengthens the Agency's capacity to improve and develop information systems for European security, border management and migration, and it broadens the scope of the Agency's work in research and innovation.

eu-LISA currently manages the European Asylum Dactyloscopy Database (Eurodac), the Schengen Information System (SIS) and the Visa Information System (VIS). These systems are essential for the smooth functioning of the Schengen area. At the EU's external borders, these IT systems are instrumental in providing efficient border management and ensuring the implementation of common EU asylum and visa policies. Within the Schengen area, the availability of these systems is crucial to guarantee the freedom of movement of EU citizens.

At the same time, the Agency is also developing the Entry/Exit System (EES)⁵, the European Travel Information and Authorisation System (ETIAS)⁶, the centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (ECRIS-TCN)⁷ and the new components that will shape the framework for the interoperability of the systems entrusted to the Agency, as per the interoperability regulations⁸.

Our mission, vision and core values

The Agency's mission is based on its legal mandate and focuses on ***continuously adding value for Member States by supporting through technology their efforts for a safer Europe.***

This mission is delivered through the Agency's vision, which is to ***provide high-quality and efficient services and solutions to stakeholders, to earn their trust through continuously aligning technology capabilities with the evolving needs of Member States and to grow the Agency as a centre of excellence*** in the Justice and Home Affairs (JHA) domain.

⁴ In progressing and implementing the tasks mentioned below, 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

⁵ Regulation (EU) 2017/2226, OJ L 327, 9.12.2017, p. 20-82.

⁶ Regulation (EU) 2018/1240, OJ L 236, 19.9.2018, p. 1-71 and Regulation (EU) 2018/1241, OJ L 236, 19.9.2018, p. 1-73.

⁷ Regulation (EU) 2019/816, OJ L 135, 22.5.2019, p. 1-26.

⁸ Regulation (EU) 2019/817 and Regulation (EU) 2019/818, OJ L 135, 22.5.2019, p. 27-135.

The Agency's mission and vision are translated into operational activities through the core values of eu-LISA, which drive and underpin all operational activities and the strategic development of the Agency. These values are:

- **Accountability:** deploying a sound governance framework, sound financial management and cost-efficient operations;
- **Transparency:** communicating regularly and openly with the Agency's key stakeholders and engaging them in continuous dialogue to define the 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 to the Member States;
- **Continuity:** ensuring that the Agency makes the best use of the expertise, knowledge and investments put in by the Member States and that it continues to develop its expertise and knowledge;
- **Teamwork:** seeking to empower each individual team member to make the best use of his or her knowledge and experience, contributing to the Agency's success;
- **Customer focus:** ensuring that the Agency is aligned at all times with the needs and demands of its stakeholders.

Section I General context

In 2020 and the years following, the EU will continue to face two challenges:

- To remain 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 visit, to study, to work or to seek protection. Additionally, the EU will be faced with the consequences of 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 the last years, creating new opportunities for economic growth and fundamentally transforming people's daily lives. However, these changes have also dramatically increased the number of new security challenges: cybercrime cases are increasing rapidly; terrorism remains a major threat to security; and cross-border organised crime is taking on new shapes.

To address these challenges, the European Commission has defined 10 policy areas as priorities. Considering the mandate of eu-LISA, the Agency is committed to contributing to delivering on the objectives set in the following areas:

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

In order to deliver the results expected by EU citizens in the areas of border management, migration management and internal security, the EU will have to consolidate its successful policies and achievements in the Justice and Home Affairs domain and complement them with relevant new initiatives.

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 technology capabilities for supporting and contributing to the delivery of the priorities set.

Consequently, eu-LISA's role and its importance 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 the relevant JHA policies aimed at strengthening border management and internal security. eu-LISA will therefore face a dual strategic challenge of its own. On the one hand, from 2020 and beyond, the Agency will have to stay focused on its core operations (i.e. operational management and maintenance of existing systems). On the other hand, it will have to continue to increase its contribution to the Member States and the Commission, capitalising on its knowledge, experience and capabilities in the area of management of large-scale IT systems and services through the development of new systems such as EES and ETIAS and its new mandate.

Within this changing environment, eu-LISA, as a key contributor to the successful implementation of the policies in the JHA domain, will continue to deliver its mission. The Agency will continue to manage the systems entrusted to it, ensuring their uninterrupted availability and security. The Agency will also continue with its efforts in developing new systems: EES, ETIAS, ECRIS-TCN and the interoperability components.

Major developments are also expected within the existing systems managed by the Agency, i.e. SIS, Eurodac and VIS. The reinforced Schengen Information System⁹ entered into force on 27 December 2018. The Agency will therefore be working on the implementation of the necessary changes in the SIS, stemming from the new rules, in 2020. This process will have to be finalised by the end of 2021, in line with the legal requirements.

⁹ Regulation (EU) 2018/1860 and Regulation (EU) 2018/1861, OJ L 312, 7.12.2018, p. 1-55; Regulation (EU) 2018/1682, OJ L 279, 9.11.2018, p 13-14; Regulation (EC) No 1986/2006 and Regulation (EC) No 1987/2006, OJ L 381, 28.12.2006, p. 1-23; Council Decision 2007/533/JHA, OJ L 205, 7.8.2007, p. 63-84.

Concerning Eurodac recast regulation, the Commission has set out the benefits of adopting this proposal as one of five proposals under the Common European Asylum System close to agreement²⁰. eu-LISA is ready to start working on the development of the necessary changes in Eurodac, stemming from its new legal base, as soon as it enters into force. On 16 May 2018 the Commission introduced a proposal to revise the legal instruments governing VIS. Work is ongoing in the European Parliament and in the Council on the legislative proposal, and the Council's negotiating position on a proposal to amend the VIS regulation was agreed on 19 December 2018. It is expected that a new legal base for the VIS will enter into force in 2020 and the Agency will then start working on the necessary developments in the system.

In order to adequately address the cybersecurity risks faced by large-scale IT systems under the Agency's management, the Agency will continue to follow its proactive approach in close collaboration with the Member States and relevant JHA agencies. The Agency's focus will be to strengthen and develop the overall cybersecurity architecture and procedures of the systems under its operational management by proactive monitoring and responding to potential risks.

The Agency will also continue to deliver the appropriate services to its stakeholders, in accordance with the high standards it has established to date. Concerning data quality, eu-LISA will continue to provide operational support to the Member States and enhance its capability for putting in place automated data quality control mechanisms and common data quality indicators, in line with specific provisions set out in the relevant legal instruments. As part of the implementation of the new interoperability architecture in the JHA domain, eu-LISA will develop a central repository for reporting and statistics. Comprehensive reports, including on customisation capability, will be provided to stakeholders on system usage and statistics, in line with the interoperability regulations.

eu-LISA will also continue to provide training sessions on the technical use of large-scale IT-systems to the Member States, extending the scope of work in this area to cover the new systems and interoperability components as necessary. These efforts will be supported through its modern, secure and reliable e-learning platform.

The Agency will continue developing the existing working arrangements with JHA agencies and will explore possibilities for new ones as part of its new mandate. In this respect, effective cooperation will be preserved with the Member States and Associated Countries, as key stakeholders. The Agency will continue to maintain close and effective relations with the EU institutions and JHA agencies. Other EU agencies will also remain an important partners for eu-LISA. If necessary, and in line with the legal instruments, working arrangements with international organisations may also be established.

Finally, 2020 will be a very challenging year for eu-LISA from an internal perspective. The number of staff at the Agency will continue to grow significantly. In addition, it will be the first year after the completion of the Agency's transformation programme 'eu-LISA 2.0' and the roll-out of the new organisational structure. Furthermore, it is expected that in the second half of 2020, the contract for the execution of the second extension of the Agency's technical site in Strasbourg will be signed. All of these represent significant steps in the evolution of the Agency.

²⁰ Managing migration in all its aspects: progress under the European Agenda on Migration, COM (2018) 798 final (4.12.12).

Section II Multiannual programming 2020-2022

1. Multiannual objectives¹¹

1.1. Strategic goals 2018-2022

The strategic goals for the Agency 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 reconfirmed in the updated long-term strategy of the Agency, adopted by the Management Board in November 2017.

The goals are regularly monitored and are subject to regular reviews and fine-tuning over the term of the strategy to meet the evolving needs of the organisation and its stakeholders.

The Agency's updated long-term strategy establishes four strategic goals, namely:

- **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 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**

These strategic goals are further broken down into multiannual objectives in the next section.

¹¹ This section is developed in accordance with the Agency's long-term strategy, adopted by the Management Board in November 2017.

1.2. Strategic multiannual objectives 2020-2022

Since its establishment, eu-LISA has continuously developed a planning approach enabling the organisation to streamline its efforts to deliver its mission and fulfil its vision. In 2017, the Agency updated its long-term strategy establishing the strategic goals and respective strategic objectives for the period 2018-2022. The document sets the direction for Agency's development in the next five-year period. In order to deliver on these strategic goals, the Agency has prepared a multiannual view for 2018-2022, which breaks the strategic goals down into strategic objectives and links them with corporate performance indicators.

The relationship between the strategic goals, the strategic objectives and the corporate performance indicators is shown 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 testing
	Percentage (%) of identified security risks dealt with by security controls
	Eurodac central system availability
	Eurodac central system response time
	Wide Area Network availability (for SIS and VIS systems)
	SIS central system availability
	SIS central system response time
	VIS/BMS central system availability
	VIS/BMS central system response time
	Member State Systems Service Desk Performance

Strategic goal	Indicators of achievement
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 that are met or on schedule
	Cancellation rate (%) of payment appropriations
	Rate (%) of budgetary commitments implemented
	Rate (%) of payment implementation
	Ratio (%) of payments completed within the statutory deadlines
	Percentage (%) of audit recommendations implemented within stipulated deadlines
	Procurement compliance with the Agency's Procurement and Acquisition Plan
	Procurement project management: % of main procurement projects on schedule
	Average number of square metres of office space per FTE (Full-Time Equivalent) (m ²)
	Percentage (%) of uncertified vs certified days of absence from work within the reporting period
Annual percentage (%) staff turnover	

Strategic goal	Indicators of achievement
	Staff performance index
	Staff engagement level
	eu-LISA web-based visibility

Table 2: Elements of the strategic objectives, for the period 2018-2022

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 & efficient evolution of 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	1.1.3 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 for 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 for stakeholders	1.2.2 Develop and implement new/additional systems if so provided by relevant legislative instruments

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	1.2 Continuously increase the added value of systems, data and technology for stakeholders	1.2.3 Increase the visibility of the Agency's corporate performance 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 for stakeholders	1.2.4 Deliver appropriate systems training for the 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 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 a sourcing strategy that offers the 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 to optimise the Total Cost of Ownership

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	2.1. 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 towards compliance with industry standards for IT Service Management (ITSM/ITIL)
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 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 a 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 services 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	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	3.1.1 Follow developments in research and innovation
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 the 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 within the Agency
Strategic Goal 3: continue growing as the principal EU ICT technology hub	3.2. Be a trusted advisor and 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 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 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 and the operational model of the Agency	3.3.1 Establish enterprise architecture capabilities in the Agency
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	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	4.1. 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 4: continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.2. Continuously align business objectives with 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 business objectives with capabilities, processes and resource allocation to best serve stakeholders' needs	4.2.2 Identify key capabilities and processes that need adjustment and implement necessary changes to improve performance in a systematic and measurable way

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 business objectives with 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 business objectives with 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 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 HR function towards business partnerships in order to better support staff needs and the objectives of the organisation

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	4.4. Develop and maintain a positive image towards internal and external stakeholders	4.4.1 Promote and maintain a positive image of the Agency through outreach activities and effective external and internal communication
Strategic Goal 4: continue to develop an efficient and agile organisation in compliance with the EU regulatory framework	4.4. Develop and maintain a positive image towards internal and external stakeholders	4.4.2 Maintain the visibility and credibility of the Agency's work and contribution to the EU amongst external stakeholders

2. Multiannual programme 2020-2022¹²

This section describes the specific action areas that need to be addressed in the period 2020-2022 to help achieve eu-LISA's strategic goals and objectives. The strategic action areas aim to support and assure cohesion between the business functions entrusted to the Agency with its establishing 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 that will deliver the desired results. The Agency can therefore be confident that all its actions are in line with the statutory requirements and will lead to the achievement of its vision and the fulfilment of its mission. The intention of the organisation is to draft its single programming documents so that they reflect the logic and scope defined in the long-term strategy.

2.1.1. Operational management and evolution of existing systems

eu-LISA will ensure continuous high availability of the systems entrusted to it to the Member States through robust and high-quality 24/7 operational management. This will be achieved through constant monitoring, incident management and interaction with the Member States. Efficient management and maintenance of the backup data centre and the backup technical site will likewise be ensured.

General systems-related activities

In 2020-2022, eu-LISA aims to continue improving the efficiency of its operational management of the systems entrusted to the Agency. The main initiatives in this regard will be:

- Centralisation of Oracle licensing;
- Definition and implementation of the event management process for all the core business systems, aiming to align the event generation types and categories with the contractors;
- eu-LISA will continue identifying and using synergies in infrastructure and services, with the implementation of an integrated solution for all existing core business system monitoring tools based on the relevant event management process and fully respecting the applicable legislative framework of those systems. Integrated monitoring will contribute to further increasing the efficiency of eu-LISA's operational management of the systems entrusted to it and will help the Agency to meet its objectives in accordance with Article 2 of the establishing Regulation;
- Further automation and improvement of measurement and reporting, in order to ensure real-time reporting as well as point-of-time reporting, based on the continuous improvement cycle;
- Integration of asset management with configuration management;
- Further harmonisation of eu-LISA's data centre infrastructure management by continuing to implement common shared services on top of a common shared infrastructure (CSI). eu-LISA will also make an effort to reorganise its data centres in order to host the CSI (already implemented over previous years) properly.
- Finally, enhanced focus will be given aligning the processes and contractual arrangements of the different MWOs with the shared services provisions and standards.

At the same time, the Agency will have to prepare for integrating existing systems (SIS, VIS, Eurodac, EES and ETIAS once developed) into the new interoperability architecture.

¹² This section has been prepared in accordance with the Agency's long-term strategy, adopted by the Management Board in November 2017.

The Agency will keep developing its contract and vendor management capabilities for the systems under its management by standardising and optimising the architecture of its MWO contract portfolio. The benefits will include (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 contractors;
- Implementation of unified performance metrics for all contractors;
- Alignment of number and scope of the contracts with the architecture of the systems (present and future) managed by eu-LISA.

SIS

As a result of the success of the current operations and considering the present challenges and need to reinforce the EU's internal security, the SIS must undergo a number of necessary evolutions, both from a technical and business perspective.

From a technical perspective, in the next few years, the SIS will have to evolve to ensure that additional capacity for alerts and queries will be implemented appropriately in order to meet the extremely demanding performance requirements. This will require the implementation of a state-of-the-art search engine (based on elastic search technology and adding the corresponding additional infrastructure), which will significantly improve the overall capacity but will also, very importantly, improve the availability of alphanumerical searches.

Other technical evolutions will focus on improving the data quality checks functionality.

At the end of 2018, the updated Schengen Information System legal framework was adopted, covering in particular the following fields:

- police and judicial cooperation in criminal matters;
- border checks;
- the return of illegally staying third-country nationals.

From a business perspective, the Agency has to implement additional categories of alerts, fields and other functionalities (including biometric facial recognition, DNA), which will significantly increase current SIS capabilities. The new legal bases also aim to increase the availability of SIS for end users, the increase of data quality control and monitoring statistics and a broader access for Member States and EU institutional users. The SIS AFIS should be fully rolled out to all Member States by the end of 2020 according to the new requirements.

The Agency will also continue to carry out the necessary tasks to implement the registration of return decisions and entry bans into the SIS, thus improving the SIS's capabilities for supporting the EU's return policy and border management efforts.

The regulatory deadlines for implementation (three years following its entry into force) will need to be respected. This implies that all work should be finalised by 2021.

The Agency will also start to implement the interconnection with ETIAS, using a generic interconnection module and, purely in the infrastructure domain, will move the core system backup service to virtual tape libraries and the pre-production environment (PPE) environment at the BCU from inside the mountain to outside the mountain.

Eurodac

The Eurodac system will continue to evolve technically, including in terms of its capacity, to keep it aligned with Member States' needs in relation to managing migration flows.

Once the new regulation enters into force, the evolution of Eurodac should include:

- Extension of search and storage to all categories of data (asylum seekers, third-country nationals illegally present in EU territory, third-country nationals apprehended illegally crossing EU borders);

- Creation of new categories of data to deal with persons admitted under resettlement schemes;
- Lowering the age of fingerprinting to 6 years old (compared to age 14 in the existing regulation) to keep track of minors' arrivals, applications for international protection and secondary movements;
- Extension of the data model to cover additional personal biographic data;
- Storage of copies of passports and other types of ID documents;
- Extension of the data retention period;
- Alphanumeric searches for law enforcement purposes;
- Introduction of facial imaging: facial images will initially be stored and sent back to the Member States as part of the search result sets. Based on the outcomes of a study to be initiated after the adoption of the Recast, the implementation of face recognition capabilities into the system will start, as part of the shared Biometric Matching System (sBMS) developments.

In addition to the above-mentioned Eurodac evolutions, and to support the changes introduced in the Eurodac Recast, a further upgrade of the system's capacity will be implemented to cope with the impact of functional changes to the system's storage and transaction throughput.

In addition to these changes, and in order to ensure compliance with the interoperability provisions, the Eurodac architecture will need to be significantly modified. The preparations for the redesign of Eurodac, which will be initiated earlier, will ensure that Eurodac will become technically ready, during the period 2020-2022, to:

- comply with ETIAS connectivity requirements (upon conclusion of the necessary consequential amendments)³³;
- Connect/integrate with the sBMS, which will also implement the face recognition capabilities foreseen in the Eurodac Recast;
- Connect/integrate with the other interoperability components, such as the Common Identity Repository (CIR) and the Multiple Identity Detector (MID).

eu-LISA, in cooperation with the Member States and the Unified Message Format (UMF) project stakeholders, has already started working with the extension of the UMF standard for asylum purposes. In all Eurodac developments, the extended UMF standard (or a UMF-friendly notation in case the standard is not yet fully extended for asylum purposes) will be used.

To the extent possible, the evolutions of Eurodac will be contractually managed through the new Eurodac MWO, in place since the beginning of 2018³⁴. In case the provisions related to Eurodac Recast, interoperability, connection with ETIAS and integration with the Dublin Automated System (DAS) require earlier implementation and/or possible re-engineering of Eurodac, a new procurement procedure will be initiated to deal with this increased scope, as the budget and specifications of the current MWO contract will not be sufficient to cover those new changes.

As regards the Dublin Automated System (DAS), depending on the outcome of the negotiations on the Dublin reform, eu-LISA will undertake any relevant follow-up³⁵. As regards DubliNet, the new eu-LISA Regulation includes a provision to formalise eu-LISA's existing (as per the service level agreement of 31 July 2014) responsibility for DubliNet. In agreement/cooperation with the Member States, apart from maintenance services, possible evolutions of DubliNet will be assessed and implemented, such as, for example, changing the

³³ As this evolution may have a huge impact on the transaction throughput of the system and its ability to process incoming transactions within agreed performance levels, an impact assessment is necessary to assess the extent of architectural changes/reengineering of Eurodac required. This impact assessment will also determine the necessary resources for implementation (human and budgetary).

³⁴ In the absence of the legal framework at the time of drafting, the necessary budget for the Eurodac Recast implementation is not included in the Eurodac MWO contractual ceiling, which will have to be revised accordingly (subject to availability of contract ceiling).

³⁵ At the time of writing the relevant negotiations are ongoing. A study carried out by the Commission has indicated significant synergies between DAS and Eurodac, and the possibility to interconnect the two systems. This may have a significant impact and change the approach taken both for the Eurodac Recast as well as for the DAS development, upon approval of the legal proposals.

predefined PDF forms to automated/XML web forms. Collaboration with EASO will continue through the EASO network of Dublin Units.

VIS/BMS

For the period 2020-2022, eu-LISA will continue to ensure uninterrupted availability of the VIS and BMS through regular and comprehensive maintenance, focusing on implementing interoperability with other systems, and keeping VIS and BMS transactional capacity aligned with business requirements. Subject to an amendment of the VIS Regulation, eu-LISA will need to implement substantial evolutions to the system. The proposed changes will allow:

- More thorough background checks on visa applicants and the closing of security information gaps by better information exchange between the Member States;
- Full interoperability with other EU-wide databases;
- Pre-travel vetting through the introduction of a minimum-security baseline for third country nationals (TCNs) (through the introduction of mandatory and automatic checks for visa-exempt and visa-required travellers) requiring pre-travel authorisation to visit the Schengen area.

It will further facilitate border crossings for TCNs, as it will reinforce confidence that a TCN meets all requirements for entering the Schengen area. Automation of the consultation and notification procedures is expected, together with data quality checks, enhanced statistics and reporting, and biometric checks with facial recognition technology. It will also facilitate border crossings for residence permits and national visa holders, through the same principles: centralisation of data, availability of data for the entire Schengen area and at border crossing points. The measures to be put in place include enhanced security checks across all databases, better data and information exchange, more efficient return procedures and a strengthened capacity to prevent crime and prosecute. These activities will bring changes to the central system as well as to the end users of the systems (the Member States and Europol).

Moreover, in order to further improve the quality of service for users of the VIS and therefore meet the objectives of the VIS regulation, a flow control mechanism between the VIS and BMS will be implemented to ensure more efficient use of the throughput and to better manage traffic variations. This will be implemented with dynamic load allocation and VIS flow control¹⁶. Some VIS core components will be migrated into the CSI.

Other developments

Evolutions that resulting from interoperability regulations will lead to synergies across core business systems. eu-LISA will therefore develop further transversal services, with a view to enhancing its current actions and developing systems for improving data quality and reporting functions. Existing large-scale IT systems will thus be improved by increasing their accessibility, scope of use and quality of data.

To assure a timely, effective and efficient evolution of the systems, the Agency is planning to prepare the CSI for the virtualisation of the different CBS in the 2020-2022 period. In the meantime, the Agency will migrate part of the CBS infrastructure into the already implemented CSI. During this same period, the CSI will evolve from 'Infrastructure as a Service' (IAAS) to 'Platform as a Service' (PAAS). This evolution will rely on the development of eu-LISA's common shared services catalogue, which aims to provide shared and standardised technical services to be used by existing and new CBS within the bounds of the legal requirements for segregation and separation of data and data flows. To this end, the Agency intends to leverage the new paradigms of software-defined compute, storage and network architectures in a tenanted approach to maintain the integrity of the systems from a legal standpoint.

¹⁶ Dynamic load allocation and VIS flow control are compensatory measures in case active-active set up for VIS is not technically feasible.

2.1.2. Operational management and evolution of the communication infrastructure

Current VIS and SIS communication infrastructures are operated under the TESTA-ng II framework contract owned by DG DIGIT. This framework contract will expire on 30 June 2020. Before the expiry of this framework contract the Agency will, in close collaboration with DG DIGIT, assess the possible options for achieving continuity in delivering VIS and SIS communication infrastructures. Upon signature of the framework contract for the new pan-European network by DG DIGIT, the Agency will launch specific preparatory actions for implementing the new communication infrastructure and the migration of the CBS.

Furthermore, eu-LISA will work on the preparation of the communication infrastructure and local networks for the EES and ETIAS, including a network upgrade and new connections such as the EES web service. The EES will use the existing VIS communication infrastructure. The Agency therefore intends to keep the present network provider for the VIS until implementation of the EES is concluded, thereby reducing the risks related to EES implementation and benefitting from the latest investments made in the existing VIS network. If this is not possible, a brand-new network for the VIS and EES, and potentially for the SIS as well, will have to be built urgently, which will create significant risks for VIS and SIS operations and for the EES entry into operations. Only then can VIS/EES network migration to the new pan-European network commence, in order to avoid any negative effects on EES implementation. This will mean, however, that for a period of time the Agency will have to run the existing TESTA-ng network in parallel and will have to migrate the other networks to the new pan-European network at the same time.

According to the ETIAS regulation, the ETIAS communication infrastructure will, to the extent technically possible, share and reuse the hardware and software components of the EES communication infrastructure. Expected activities include establishing new connections with the Member States, the general public, business stakeholders (carriers), Frontex and Interpol and relevant existing large-scale IT systems such as Eurodac and SIS.

Moreover, the Agency intends to continue working on increasing the effectiveness, network capability and security of its large-scale IT systems' connection to the communication infrastructure through unified wide area network (UWAN) perimeter activities, and to continue with the study and design project started in 2019, including the integration of the advanced network statistics solution and implementation of the network analytics functionality.

The tasks related to the operational management of the communication infrastructure will continue to be entrusted to third-party private-sector providers under the responsibility and close supervision of the Agency. Such network providers will continue to be bound by the security measures laid down in the systems' legal instruments and in the Commission decisions relating to the SIS and VIS networks, and will have no access by any means to any operational data stored in the systems or transferred through the communication infrastructure.

As part of its operational activities, eu-LISA will continue to monitor²⁷ the utilisation of its network connections and will take appropriate action to make sure that such network connections have sufficient capacity to meet the Agency's needs.

The Agency is also planning to employ the implemented advanced network statistics solution further and gradually expand it to cover data centre networks. This will significantly increase eu-LISA's awareness of data flows and will allow it to carry out analysis on the data centre network, allowing a more proactive and accurate

²⁷ Using the outcomes of the Advanced Network Statistics project started in 2018.

network and capacity management, faster incident troubleshooting, and better supervision of the interfaces between the different systems.

2.1.3. Development and implementation of new systems

EES

The Agency is responsible for implementing all the activities related to the development, implementation and operational management of the EES, as well as connecting Member State border infrastructures thereto. This will be done via the National Uniform Interface (NUI), which is identical across all Member States as it is based on common technical specifications. eu-LISA will not only develop this interface, but will also coordinate Member States' integration of the NUI at national level. In addition, eu-LISA is to host the other external interface of the EES – the Web Service (WS) – which is to provide services to third-country nationals wishing to verify their authorised length of stay. The WS will also function as a gateway for carriers to check whether a third-country national with a short-term visa issued for one or two entries has already reached the number of entries authorised by that visa. Both the NUI and the WS are new types of services which eu-LISA has not offered before.

On 17 May 2019, eu-LISA kicked off the framework contract for the development of the EES system. The tender was won by a consortium of three companies: IBM Belgium, Atos Belgium and Leonardo. Work on the development of the EES system has started and will continue until 2022.

The tender process of the EES BMS, which includes the requirements for the sBMS interoperability component, will be finalised in 2020. The development of the sBMS will therefore start in 2020 and continue in 2021.

As part of the implementation of the EES regulation, the Agency will develop the interoperability of the EES with the VIS. This activity, initiated in 2019, will continue until 2022

ETIAS

The Agency is responsible for the technical development and implementation of ETIAS, including the ETIAS watchlist, the NUI and the communication infrastructure.

The ETIAS development project has progressed according to the schedule in 2019, starting with the preparatory phase and high-level planning. The tender procedure is expected to be completed during the first quarter of 2020. Following the allocation of the contract, the development of ETIAS will start and is planned to be completed by 2022. The testing phase with Member States will then be carried out, and ETIAS is expected to become operative by the first half of 2023. The ETIAS 'consequential amendments',¹⁸ two Commission proposals likely to be adopted by 2020, will provide additional legal instruments supporting the Agency in the development of ETIAS.

ECRIS-TCN

Regulation (EU) 2019/816 establishing a centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (ECRIS-TCN) to supplement the European Criminal Records Information System entered into force on 11 June 2019. According to this regulation, eu-LISA is responsible for the development and operational management of ECRIS-TCN. The new system will enable Member States to request detailed conviction information through the ECRIS system directly from other identified Member States. The tasks to be performed by eu-LISA are twofold: development of the new ECRIS-TCN system, which includes project management, development follow-up, and quality assurance and quality control activities; and subsequently carrying out operational management and maintenance of the system. The current ECRIS reference implementation used by all but four Member States will be updated to interconnect

¹⁸ COM (2019) 3 final and COM (2019) 4 final.

with ECRIS-TCN.

Interoperability of the systems

The interoperability regulations entered into force on 11 June 2019. The new interoperability components defined in the regulations will allow border guards, police officers and visa and immigration officials to use faster, more reliable and more complete information about security threats. The implementation of these components, specifically the European Search Portal (ESP), the shared Biometric Matching Service (sBMS), the Common Identity Repository (CIR), the Multiple Identity Detector (MID) and the Central Repository for Reporting and Statistics (CRRS) will require significant efforts in terms of design, development, testing and implementation. Changes to the existing systems are also required since biographic and biometric data will be transferred to the newly created CIR, the biometric templates will be migrated to the new sBMS, and the MID needs to be built as an automatic alert system detecting multiple fraudulent identities.

Moreover, new transactional mechanisms may be necessary for accommodating all transactions via the European Search Portal, and the capacity of the existing systems (particularly the SIS) needs to be increased. The legal basis of each existing system has been or will be amended to reflect the interoperability requirements. Extensive integration efforts will also be needed, with concomitant changes being made as necessary to the existing systems as well as to the ones under development so as to enable the interoperability components to operate.

eu-LISA plans to finalise the development of the sBMS in 2021 and to start with the migration of existing VIS, SIS and Eurodac biometric functionalities in 2022.

Furthermore, as an overall technical strategy and to accommodate and cope with the new interoperability components and changes to the existing systems, several foundational developments will need to be put in place. These will include the implementation of a consolidated and virtualised infrastructure, streamlined delivery processes (driven by automation), a standardised monitoring tool (for better controlling the components) and enhanced security processes.

Dublin Automated System

The migratory crisis has exposed structural weaknesses in the design and implementation of the Common European Asylum System and the European migration policy. As part of efforts to put in place 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 – DAS – for allocating asylum applications in the EU, based on a distribution key. The new automated system could be developed, subject to the adoption of the legal framework, to register all applications, to monitor every Member States' share in all applications and to (re)distribute the asylum applications across the EU. Given the delay in reaching a political agreement on Dublin IV, it is expected that eu-LISA may start the system's development process in 2020. EASO will be consulted in the DAS development process.

2.1.4. Security and business continuity

To achieve the strategic objective of strengthening the Agency's security, cybersecurity and information management capabilities, the Agency will continue, in the period 2020-2022, to carry out activities related to the strategic approach for further consolidating the security and business continuity governance of eu-LISA. The ultimate goal of the security and continuity strategy is to ensure that eu-LISA maintains the highest levels of security and business continuity, to comply with its mandate.

The activities of the protective security function will continue to focus on managing the day-to-day operations of physical security services in protecting personnel, facilities and sites.

The operational security aspect of health and safety will also be part of the day-to-day operational activities of the Security Unit, ensuring a good working environment at eu-LISA's premises. An updated emergency framework will be developed, including periodic training and exercises with the involvement of all staff.

The protective security function will work on continuously refining and testing the Agency's business continuity and disaster recovery plans through the implementation, operation, improvement and continuous evolution of the end-to-end approach, as described in the revised Security and Continuity Strategy 2019-2022¹⁹. The Agency will continue its yearly business continuity and disaster recovery exercises. In 2020, a combined disaster recovery exercise will be organised together with Member States for the SIS, VIS and Eurodac.

The Agency will continue to provide strategic security outreach to stakeholders through the Security Officers Network²⁰, which facilitates the exchange of information, best practices, advice and guidance for security experts. This has become the forum for coordination in security matters between eu-LISA, EU institutions, bodies and agencies in the JHA area, Member States and associated countries. The Agency also participates in forums in other areas and in working groups on cybersecurity, to share experiences and increase the level of knowledge in this important field.

eu-LISA will continue to participate in inter-agency working groups on business continuity/disaster recovery, with a focus on organisational resilience for providing uninterrupted services to the Member States.

The information security and assurance function will maintain two main areas of operation within the planning period. The first area of operation concerns the day-to-day provision of the information security and assurance service. This foresees the execution of operational information service processes, such as governing, assessing, ensuring, protecting, monitoring, responding and recovering (based on the ISO 27001 information security management system), to maintain a high level of information security and assurance for all the large-scale systems under the responsibility of the Agency. The second area of operation covers the development and evolution of the technical security architecture in accordance with the roadmap outlined in the Agency's technology strategy, to strengthen large-scale systems' resilience to security incidents and cyberattacks.

The Agency's technology strategy envisages a target situation for the information security management service, with a comprehensive cybersecurity programme based on:

- Standardised security architecture, using the most relevant, advanced and effective security controls to protect against threats, based on accepted good practice, such as the CIS (Center for Internet Security) Critical Security Controls. The focus is on basics like application whitelisting and patching, technical vulnerability management, privileged management, identity and access management;
- Continuous monitoring and analytics to provide risk-based, actionable insights to further enhance the security situation (e.g. system behavioural analytics);
- Stronger communications security and trust through the development of a robust internal Public Key Infrastructure (PKI);
- During 2020-2022, eu-LISA's Security Unit will be in charge of the management of the Security Information and Event Management System (SIEM) that will be integrated within the Common Shared Infrastructure, together with a strong and robust PKI for the distributed use of digital certificates aimed at enforcing identity management.

2.1.5. Core business support activities

Statutory reporting for systems

In the period 2020-2022, the Agency intends to continue complying with all management and statutory

¹⁹ Pending adoption by the Management Board on 19 November 2019

²⁰ An informal network of security experts exchanging best practices on security and business continuity, advising the Management Board and the Advisory Groups upon request.

reporting requirements (as foreseen in the current legal bases for each system under its management). In particular, it will continue to report to the European Parliament, the Council and the Commission on:

- Publishing SIS statistics every year as per Article 66(3) of Council Decision 2007/533/JHA and parallel provisions in Regulation (EC) No 1987/2006;
- Submitting the report on the technical functioning of SIS, including security, every two years (in 2021) pursuant to Article 46(8) of Council Decision 2007/533/JHA and parallel provisions in Regulation (EC) No 1987/2006;
- Submitting the report on the technical functioning of VIS, including security, every two years (in 2020 and 2022) pursuant to Article 50(3) of Regulation (EC) No 767/2008 and Article 17(3) of Council Decision 2008/633/JHA;
- Submitting an annual report on the activity of the Eurodac central system, including its technical functioning and security, every year pursuant to Article 40(1) of Regulation (EU) No 603/2013;
- Publishing the Eurodac annual statistics every year as per Article 8(2) of Regulation (EU) No 603/2013;
- As soon as the EES is in operation, publishing the statistics on the EES every quarter as per Article 63(4) of Regulation (EU) No 2017/2226 and the annual report as per Article 63(5);
- As soon as the ETIAS is in operation, publishing the statistics on the ETIAS every quarter as per Article 84(4) of Regulation (EU) No 2018/1240 and the annual report as per Article 84(5).

In addition, eu-LISA will continue to ensure that the list of competent authorities authorised to search directly the data contained in the SIS, together with the list of National SIS Offices and national SIRENE Bureaux (as per Article 31(8) of Regulation (EC) No 1987/2006 and parallel provisions in Council Decision 2007/533/JHA) are published in the Official Journal (OJ) of the EU on an annual basis. The Agency will publish the updated list of designated authorities on its website every year, specifying the exact units having access to the data recorded in the Eurodac central system as per Article 27(2) of Regulation (EU) No 603/2013.

As per Article 65(2) of Regulation (EU) No 2017/2226, three months after the EES has started operations, eu-LISA will publish a consolidated list of competent authorities – as per Member State notifications – in the OJ of the EU.

As per Article 87(2) of Regulation (EU) 2018/1240 three months after the ETIAS has started operations, eu-LISA will publish a consolidated list of competent authorities which have access to the ETIAS system - as per Member States notifications - in the OJ of the EU.

Provision of training to the Member States on the technical use of the IT systems managed by the Agency

eu-LISA will continue to provide high-level tailored training sessions on the technical use of all systems in its remit (including the SIS, VIS, Eurodac, EES, ETIAS, ECRIS-TCN and interoperability components) to participating national authorities. The already fruitful cooperation with the European Commission, JHA Agencies and Member States will continue through the creation of additional joint training initiatives. A joint training initiative between eu-LISA, CEPOL, Frontex (and FRA as appropriate) for a specific training programme for the Member States on EES and ETIAS will be implemented. Technical aspects of the pre-deployment and, after entry into operation, post-deployment integration phase will be the main focus of this training programme. Similar training programmes will be developed for ETIAS and new interoperability components.

The content of the eu-LISA training portfolio dealing with the SIS, VIS, Eurodac, EES and ETIAS will be closely monitored to ensure that it is tailored at all times to the needs of the Member States. In the period 2020-2022, a special focus will also be put on the establishment and subsequent reinforcement of the training portfolio related to ECRIS-TCN and interoperability. All relevant stakeholders will be involved in the creation process of these specific training portfolios. The Agency will also continue to provide strong support to the Member States (e.g. SIS for Cyprus, VIS for Bulgaria, Romania, and Croatia) and/or EU bodies that will begin to use systems already in place. For this purpose, tailored newcomer training programmes will be established as a necessary step to achieve full technical readiness for integrating these systems.

In order to meet eu-LISA target group members' training needs, especially those arising from the implementation of new systems, the training framework (Development Training Programme for IT Operators) currently applied and the relative certification mechanism will be updated.

Finally, for the period 2020-2022, the e-learning component of eu-LISA will be further reinforced following all the updates in the area of e-learning and management of online learning systems. The choice of e-learning materials and products for training will be enhanced to reflect the training needs of the Member States in relation to existing and future developments.

Technology research

In accordance with Article 14 of the new establishing Regulation of the Agency, the implementation of parts of the framework programme for research and innovation (Horizon 2020, and from 2021 onwards Horizon Europe) that relate to large-scale IT systems in the area of freedom, security and justice could be entrusted to the Agency if the Commission has delegated the relevant powers to eu-LISA. By 2020, the Agency should have put in place the capabilities to engage in such work, and management of some stages of project implementation could be planned, involving Member States and other JHA Agencies where appropriate.

Given that several new systems and (in the case of interoperability) technical components will be developed and/or implemented in the period from 2020 to 2022, specific efforts will be made to identify the latest related developments in research and technology that could be incorporated into projects focused on implementation of the new systems. The research and technology monitoring function will make a particular effort to relay findings towards internal staff and those involved in design, development and implementation projects, in particular through the provision of monitoring reports and technical briefings. Additionally, research monitoring will provide some of the in-depth knowledge and insight the Agency will require in its aforementioned actions as a reliable partner for relevant policies pertaining to the operational management of large-scale IT systems in the area of freedom, security and justice.

External outreach will also continue to be an important element of research activities. The practice of biannual reporting on technology monitoring outcomes to the European Parliament, the Council, the Commission and, where the processing of personal data is concerned, the EDPS, will continue in line with legislative requirements (which require this to be done at least once a year), and with the MoU with the European Commission, in particular providing technical input relevant to new systems development.

2.1.6. Corporate governance

Growing as a centre of excellence

In order to further bring its operations into line with industry best practices, the Agency will continue developing its service and process model based on the adoption of ITIL/ITSM best practices. eu-LISA will thus be able to identify and implement activities to improve service quality and the efficiency and effectiveness of the established ITSM processes and service model. This will improve process integration²¹ significantly, as well as the cost-effectiveness of delivering IT services without sacrificing customer satisfaction. In addition to the service delivery processes, resolution processes and control processes, the Agency will develop and implement the necessary relationship processes, namely:

- Demand management;
- Business relationship management;
- Vendor management.

This will lead to a much better alignment of stakeholders' requirements and expectations, further improving stakeholders' satisfaction. By using the principles of the continuous service improvement process, eu-LISA will

²¹ Process integration is one of the key IT Service Management best practices.

also seek opportunities to increasingly automate and rationalise processes where possible, benefiting from the integrated ITSM tool and its continued shift towards monitoring tools. Apart from that, the focus of the strengthening of the Agency's integrated process and service model will be on providing much more efficient and effective ongoing control, as well as opportunities for continuous improvement of all eu-LISA's services.

The planned implementation of the knowledge management process will also open additional opportunities for enhancing eu-LISA's internal knowledge artefacts' database and Member States users' knowledge artefacts further. The focus will be on the integration of the ITSM process model with the established project management process, allowing for further standardisation and more efficient control of the transition into operations.

In parallel, the Agency will seek to put in place a significantly enhanced service and process measurement system via the establishment of the Agency's service measurement tree and automation of reporting for the respective KPIs and service/operational level agreements. In order to be more efficient in its operations, the Agency will focus on the proper implementation and use of the knowledge database and knowledge sharing among stakeholders. Additional significant enhancements of the configuration management process and asset management will guarantee a more effective control of the total cost of ownership. All these planned activities will be based on running the continuous service improvement process efficiently.

The Agency will improve the existing tools to address more of the processes in place, increasing their scope as well as integration levels. eu-LISA will also introduce specific tools (available on the market) to support the automation of the different phases or areas involved in the service development cycle, aligning them with ITSM best practices such as requirements collections, requirements analysis and design, version control, software testing, further processes integration, etc.

eu-LISA will continue to strengthen its capabilities for planning and implementing its projects and programmes, by streamlining its project/programme management process and by developing existing tools to support it. The Agency will also continue to develop and strengthen its EPMO.

Corporate governance framework

In the period of 2020-2022, the primary focus of the Agency's governance framework remains to provide corporate governance elements such as corporate risk management, corporate KPI performance management, and to provide legal advice to ensure that statutory requirements and relevant business needs are met. In the area of compliance management, the Agency aims to implement the internal control framework adopted in 2019, closely following the updated concept and best practices already established within the Commission.

Furthermore, eu-LISA aims to build effective portfolio management capabilities and best practices to support compliance, while improving the delivery of eu-LISA's long-term strategy. Executive management should be able to define and enforce a governance structure that provides effective controls, accountability and risk management. By enhancing policies, procedure and tools, EPMO should offer the organisation a balanced view of operations by providing greater command in the project and portfolio management lifecycle and at the same time ensuring compliance with the Agency's financial regulations for ex-ante and retrospective evaluations, notably in:

- Continuous strategic engagement;
- Identification and documentation of specific investments and expected business outcomes;
- Alignment of the resulting programmes and projects with original strategic goals;
- Benefits realisation to confirm that value was delivered and can be quantified.

Corporate quality management

In the area of corporate quality management, in 2020 eu-LISA will implement a follow-up action to the first corporate quality management exercise carried out from 2017-2019. Based on the Common Assessment

Framework (CAF) methodology, and taking into account lessons learnt and best practices from the previous exercise, the Agency will assign the required resources and perform a self-assessment exercise in 2020 to identify potential areas of improvement with regard to the quality levels applied in eu-LISA's processes and deliverables. The agreed outcomes of the 2020 activities will be incorporated as dedicated measures in eu-LISA's quality improvement plan, and implemented in the years 2021-2022 as foreseen.

The Agency will continue to strengthen the quality management capability of its programmes and projects by mandating the EPMO to develop, roll out and maintain an overarching framework for programme and project quality management (PPQM). The PPQM framework will cover all major processes under the scope of the quality management discipline, namely quality planning, quality assurance and quality control, in accordance with the best practices highlighted in the 'Project Management Body of Knowledge (PMBok) Guide', 'PRINCE2 Methodology', 'The Capability Maturity Model Integration (CMMI)', and 'The Standard for Program Management'.

Furthermore, eu-LISA will improve 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 given and new stakeholder requirements. For the 2020-2022 period, continuous updates of the Agency's services and processes will also remain an important task, in order to maintain eu-LISA's efficiency and effectiveness in delivering its services.

Planning and corporate statutory reporting

The performance of the above capabilities will be embedded and linked to the Agency's overall planning and reporting cycle, which will support the Agency and its stakeholders transparently in delivering results according to requirements and expectations. The ongoing production and reporting of such management information, based on corporate governance elements, will continue to assist the Executive Director in the performance management of the organisation, and will support the Management Board and Advisory Groups in their 'challenge and support' roles to the Executive Director.

The focus of the operational planning will be on providing a structured and comprehensive approach for implementation of annual activities in line with the long-term strategy of the Agency, and on improving the internal tasks and resources planning of the various units and sectors. An ex-ante evaluation of activities with a substantial impact based on the relevant Management Board decision and on the applicable rules will be carried out to ensure the proper use of resources. The Agency will continue to upgrade its application for yearly planning and reporting. In addition, a 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 of its performance via the publication of its interim report, as required by its new establishing Regulation.

Internal audit

The Management Board and the Executive Director will continue to rely on the Agency'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. In this way, the IAC aims to facilitate the achievement of eu-LISA's annual and multiannual goals and strategic objectives.

eu-LISA will continue to cooperate with the European Court of Auditors and the European Commission's Internal Audit Service (IAS), hosting their audit missions and taking measures to respond to the resulting recommendations as appropriate. IAC will remain the coordinator in this area.

The IAC will facilitate the implementation of audits planned by the IAS in the second Strategic Internal Audit Plan of the Agency and will ensure regular delivery of IT audits to cover the Agency's IT security, operations and project management. To provide for optimal capacity and competency of its audit teams, IAC will outsource selected audits or audit procedures either by using an existing framework contract or by initiating new procurement procedures.

The IAC will maintain the highest level of maturity (5 – Optimised) and continue to report on the results of its Quality Assurance and Improvement Programme (QAIP).

eu-LISA will continue using IAC as a catalyst for improving its effectiveness and efficiency by providing insight and recommendations based on analyses and assessments of data and processes.

2.1.7. Policy, stakeholder relations and communications

Stakeholders relations

In order to foster cooperation with EU institutions and bodies, eu-LISA will 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 closely follow and support the work of the relevant Council groups dealing with legal proposals, operational initiatives and other matters relevant for the Agency, and of the Committee on Civil Liberties, Justice and Home Affairs (LIBE Committee) of the European Parliament, when invited. Key focus will be placed on ensuring that eu-LISA's knowledge and expertise in the management of large-scale IT systems will serve as basis for well-informed and fact-based decision-making. To this end, the Agency will continue to provide its technical expertise and share its knowledge with the Member States, EU institutions and EU Council Presidencies.

eu-LISA will maintain its close and constructive relations with the European Commission and will look into the further development of the existing partnership. In this regard, the full application and implementation of the updated Memorandum of Understanding between eu-LISA and DG HOME, once adopted, will be ensured²². The overall aims will include the mutual coordination of actions, support of new legal initiatives, creation of synergies and regular dialogue.

Effective and close cooperation will also be maintained with the Member States and the Associated Countries as eu-LISA's main stakeholders in terms of the Agency's activities and services. The Agency will seek to reinforce its strong working relations with the JHA Counsellors to ensure that its activities remain transparent to the Member States.

The organisation of tailored external communication and outreach events will be an important element of such work. Provision of technical support to the Member States might also be foreseen in the light of the new tasks laid down in Article 16 of the Agency's revised Regulation. Following this, in 2020, the Agency may be requested to provide advice to Member States with regard to the national system connections to central systems. eu-LISA may also be entrusted by a group of at least five Member States to develop, manage or host a common IT component to assist them in implementing technical aspects of obligations deriving from Union law on decentralised systems in the area of freedom, security and justice. The Agency will be entrusted with these tasks only after prior approval by the Commission and subject to a positive decision by the Management Board. The requesting Member States will entrust the Agency with such tasks by way of a delegation agreement setting out the conditions for the delegation of the tasks, the calculation of all relevant costs and the invoicing method. All relevant costs will be covered by the participating Member States.

The EU agencies will remain an important group of eu-LISA stakeholders and partners. eu-LISA will continue to implement the working arrangements concluded with several justice and home affairs agencies such as CEPOL, Frontex, EASO, FRA, Europol and Eurojust. eu-LISA will continue its proactive participation in the JHA Agencies network and the broader network of decentralised agencies. In addition, eu-LISA will work towards consolidating its cooperation with ENISA based on the working arrangement from 2018.

²² Until the updated MoU is mutually agreed upon, the previous MoU, concluded in 2014, applies.

The Agency may also seek to develop service sharing with other Agencies in the spirit of the Common approach²³ and following the adoption of its revised mandate (i.e. Article 41(4), Cooperation with Union institutions, bodies, offices and agencies). Alignment with the Agency's service portfolio will ensure that such service sharing is undertaken in a streamlined and efficient manner and has no impact on the Agency's core activities.

Further steps will be taken to enhance collaboration with academia, research entities and industry in Europe and globally. Opportunities will doubtless arise from the possible implementation by the Agency of the parts of the Framework Programme for Research and Innovation relating to large-scale IT systems in the area of freedom, security and justice, and the Agency will make consistent efforts to drive research efforts towards outcomes that will benefit its work and the operational management of large-scale IT systems. The close contacts established through such work will ensure the rapid uptake of the detailed knowledge that needs to be incorporated into the work in order to evolve the systems. Generally, this will help to enhance the expertise of the Agency in terms of the development of existing and new large-scale IT systems in Europe and enhanced service provision to end users. The objective of these activities would remain to support the Agency in the delivery of its mandate and tasks, as well as in the development of its image as an open, trustworthy and efficient European Agency.

Communication

eu-LISA's 2020 external communication objectives, goals and messages will be directly associated with the Agency's overall strategic objectives for 2018-2022. The communication initiatives will support the building of the positive reputation of eu-LISA as a reliable and trusted contributor to the implementation of policies in the area of justice, security and freedom, with an enlarged mandate of responsibilities over former and new large-scale IT systems under its remit.

In 2020, eu-LISA will initiate the process of revising its External Communication and Information Strategy 2017-2020 for the next five-year period, formalising the communication framework and renewed principles in order to highlight eu-LISA's extended scope of tasks due to its new mandate. External communication will focus on providing updated information, increasing awareness and promptly giving objective, reliable and clear information to the public and stakeholders as required by the legal base. Communication activities will be carried out in accordance with the relevant communication and dissemination plans adopted by the Management Board. The Agency will continue to develop, modernise and promote its main public communication tools – the eu-LISA website and online communication platforms – related to the new systems under the responsibility of the Agency.

The Agency will continue to strengthen internal communication with a view to improving intra-agency information and knowledge sharing and to facilitate the engagement and commitment of the growing number of employees. Internal communication in 2020 will focus on organisational, operational, administrative and inspirational news and information via modernised online internal outlets, and will introduce new formats to facilitate two-way communication between management and the staff. Internal communication will be managed in line with the eu-LISA Internal Communication Strategy 2016-2020 and an update of the strategy for the next five years will be formalised.

2.1.8. Financial management, procurement and accounting

The Agency will continue to consolidate its processes governing the use of resources by fine-tuning procurement, budgetary and financial management and management of assets, while applying the generally-accepted budgetary and accounting principles of the Financial Regulation and accounting rules set by the

²³ 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, paragraph 23. Available at: https://europa.eu/european-union/sites/europaeu/files/docs/body/joint_statement_and_common_approach_2012_en.pdf

Commission's accounting officer, and by eu-LISA's accountant for standards that allow reasoned deviations. The finance domain aims constantly to enhance its reporting and analysis capabilities to ensure fair, transparent and reliable decision-making and financial reporting.

Major developments in this area for the period will include:

- Modelling spending targets into project management, by coupling milestones for payment to project deliverables, in order to increase accuracy in the forecasting of payment appropriations consumption;
- Further develop the Agency's performance management capability, building on the Activity-Based Budgeting²⁴;
- Adapting the procurement model to the sourcing model adopted by the Agency through the dedicated strategy, especially as regards development, maintenance and modifications of the systems under management;
- Further develop the use of the e-Prior suite (e-Invoicing and e-Procurement) managed by the European Commission.

2.1.9. Corporate services

Facilities management

Due to the enlarged workload and number of staff needed to work on the site, a construction contract for the reinforcement of the technical site in Strasbourg was signed in 2014, and the reconstruction project (first building project) was executed afterwards.

Since the first building project, significant developments in the Justice and Home Affairs domain have created new demand on eu-LISA's operational capabilities. These developments called into question the ability of the Agency's operational office space to deal with this demand and the need for the data centre expansion on the technical site in Strasbourg.

After a comprehensive discussion in November 2017, the eu-LISA Management Board acknowledged the need for a further extension of the office space and the need for a data centre expansion on the operational site in Strasbourg.

The drivers for this further extension are as follows:

- The extended mandate of eu-LISA with regard to the new systems that will be entrusted to the Agency and the new services that will be made available to the Member States, which need more data centre capacity than exists currently or could have been foreseen in 2015 when the first building project was designed.
- The existing systems managed by the Agency are already undergoing or will undergo substantial developments. The 'Stronger and Smarter Information Systems for Borders and Security' Communication from the European Commission already addressed these growing needs and demands for integration and synergies between existing and future large-scale IT-systems. It initiated a process of structural redesign and improvement of the existing information architecture in the Justice and Home Affairs domain, while ensuring compliance with fundamental rights. It also sets out a number of actions to improve functionalities, add and enhance interoperability, and the overall benefits of the existing large-scale IT systems for the Member States and EU citizens.
- The significant staff count increase (both internal and external) related to the new systems and tasks assigned to the Agency is incompatible with the size of the technical site. On top of statutory staff, the Agency provides working space to various contractors whose presence is necessary for the daily operation of the systems. The presence of contractors even increases during repetitive, so-called peak time (2-3 times

²⁴ ABB should be fully implemented by the end of 2020.

a year), when new major releases of the software or evolutions of the systems are deployed. The final increase in the number of people working on the site will be subject to Management Board approval, taking into account the operational needs of the Agency and financial efficiency. A high-level estimation therefore leads to the conclusion that eu-LISA should ensure up to ~~443~~ **463** work spaces at the technical site in Strasbourg.

The Agency introduced the estimation of the necessary budget for this project in the MFF proposal that was communicated to DG HOME on 5 April 2018. Based on the experience gained in the first extension project, the Agency would require a number of temporary posts in the establishment plan to ensure efficient project management and to meet the legal obligations imposed by French law on the contracting authority.

Taking into account all the above factors, eu-LISA was able to make a first high-level estimation of the required additional building surface area, which is currently estimated at 7 524 square meters. However, the Agency is in the process of carrying out further capacity estimations and has commissioned an independent impact assessment and cost-benefit analysis on the technical solutions that might require duplication of systems or of components of systems (active/active solutions), as required by the new eu-LISA Regulation and the new SIS regulations. This will provide a more accurate estimation of the space requirements for the new data centre, and the associated costs. The Commission will have to be consulted and the Management Board will have to issue a positive decision on these technical solutions before the detailed notification on the second extension is sent to the Budgetary Authority. The materialisation of the project would become relevant for the 2021 budget.

In Tallinn, improvements of the working conditions from a functional perspective will be carried out if needed, as well as necessary regular maintenance works according to the Agency's strategic objectives. In addition, a new Framework Contract for the provision of corrective, preventive and development maintenance for the Strasbourg premises will be established in 2020.

A further substantial effort will be made to implement various environmental measures such as the Eco-Management and Audit Scheme (EMAS) certification and calculation, and reducing the carbon footprint. With the cooperation of various eu-LISA entities, health and safety at all sites will be given high priority, through everyday implementation of relevant actions and preventive measures. Furthermore, at the beginning of 2021, the Agency's liaison office in Brussels will be relocated to the joint liaison offices building, together with other JHA agencies. A dedicated logistics and supplies chain should be further established for the liaison office.

Corporate IT services

The main priorities will be the implementation of a framework contract for sourcing regular maintenance of the corporate IT systems and infrastructure, in Tallinn, Strasbourg and the liaison office in Brussels, as well as the provision of ICT service desk services. In parallel, a range of diverse initiatives will continue to be pursued in order to achieve enhancements in the Agency's corporate IT network, systems, virtualisation and storage architecture. Moreover, the customisation and modernisation of corporate IT applications, namely collaboration platforms, communications and project management tools, as well as the full production capabilities of ARES and SYSPER Commission pilots for Document and HR management that were started in previous years, will continue.

It is envisaged that an enhanced disaster recovery solution will be achieved by the end of 2020.

The replacement and modernisation of the Agency's corporate IT infrastructure after a five-year period for most components will be carried out in 2021, following an infrastructure and cloud strategy that will be developed in 2020. Furthermore, the focus will be on the provision of better, safer and accelerated communication capabilities with regard to email, telephony, internet, and web communication, as well as on delivering a paperless Agency as far as possible by automating a number of the services in the Corporate Services catalogue.

Information management

In order to create a fully functioning Document Management System in 2021, as well as to improve handling of all the information in the Agency, a document management programme has been established. It includes a review of all existing policies, as well as the creation of new Document and Records Management policies. The creation and implementation of these policies will ensure that the new Document Management System will address the needs of the Agency and ensure compliance with all the regulatory requirements.

2.1.10. Human resources and knowledge management

Activities in the HR domain, such as establishing rights and entitlements, payroll and payments, leave, appraisal and reclassification processes will be performed accurately and punctually. The relevant IT tools for HR will also be developed and implemented. Finally, learning and development activities will be executed to support the learning culture in the Agency.

For the years 2020-2022, the Agency has identified the main activities relating to all the priority challenges faced in growing and changing organisational and day-to-day business actions in human resources management:

Standard (business as usual) human resources management activities in terms of organisational structure, processes and practices performed in compliance with the relevant rules and decisions

The primary aim regarding standard human resources management is to ensure that adequate resources are available during this period of growth and that the Agency is prepared for the challenge of increasing staff numbers. As eu-LISA expects an increase of staff in the coming years due to an expanding mandate, the administrative burden of human resources management will almost double. The additional workload needs to be absorbed primarily through optimisation and increased administrative efficiency. Throughout this time, it is also critical that the Staff Regulations and implementing rules are observed by the Agency as a whole and by the human resources and training unit in particular. The Health and Safety Policy should continue to be developed and concluded as planned. As concerns the human resources management of all eu-LISA staff, the focus remain on the recruitment, integration and consolidation of new staff members into the organisation so that they may engage adequately in the work and reach the objectives set by the Agency.

Consolidation of the Agency following change, growth and transformation

In 2020, 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 will change, which will have to be handled in a flexible manner. Onboarding, integration and consolidation of the new staff will be a focus of human resources management over these years.

Further development of the learning environment and culture, developing HR's role in business partnerships and strengthening staff development and retention

HR will improve its services by providing efficient administration, supporting new staff recruitment processes with the use of the electronic tool and implementing other HR IT tools, such as SYSPER basic modules and the development of optional modules as part of eu-LISA's approach to automating repetitive administrative duties using modern IT tools. HR will continue to support the learning culture in the Agency through informal learning activities enhanced by the physical environment and the active role of staff members in sharing knowledge, providing feedback and support.

Continuing to develop and implement the Competency Framework to ensure the 'right people are in the right function'

The development and implementation of the competency framework will continue in the areas of recruitment, staff development and training. The leadership programme for all managers will be continued, and 360-degree evaluations for managers will be linked with the Competency Framework.

Training for eu-LISA staff related to operations (internal technical training to staff) and knowledge management

The Agency will continue to provide courses related to operations and systems for eu-LISA staff, so that they are able to perform better and offer better services to the Agency's stakeholders. Coordination and implementation of the Knowledge Management Policy will ensure that knowledge is gained and will enable eu-LISA to grow as a hub of expertise and knowledge.

2.1.11. Data protection

To assure the strictest compliance with the legal data protection framework, eu-LISA needs to ensure the continuity of the implementation of Regulation 2018/1725 repealing Regulation 45/2001²⁵. This will require concepts to be consolidated and existing internal rules to be amended/new internal rules to be adopted.

The move to a privacy risk assessment approach will pose challenges both for the Agency's DPO, project managers and controllers, mainly due to the requirement to conduct Data Protection Impact Assessments and implement controls to mitigate identified risks. The DPO will support this cultural change, serving as a translator between the legal requirements and the technical language.

eu-LISA is fully aware of the risk that processing operations with personal data brings to data subjects; therefore, such operations must have the highest protection threshold. The strongest possible commitment to keeping the data in a secure environment is mandatory to ensure compliance with data protection.

The Agency will maintain a culture of awareness by providing training to staff and external stakeholders on how to process personal data according to the standards of the legal data protection instruments. For this, some guides with instructions and specific considerations observing the best practices and standards of similar organisations, and guidance from the data protection community, will need to be prepared.

eu-LISA plans to address the challenges imposed by the new Regulation along with the new systems entrusted to the Agency, and the prevailing need to 'do more with less', by identifying priorities and developing a strategy that enables it to fulfil its commitment towards the Agency's staff, citizens and EU institutions in the data protection field.

The principles of data protection reflected in the privacy-by-design requirements will continue to set the tone and will serve as evidence for the European Data Protection Supervisor and citizens of the commitment by eu-LISA to respecting fundamental rights and in particular data protection.

The cooperation with the EDPS will continue as a priority and key element for accountability.

²⁵ Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/ECText with EEA relevance.

3. Human and financial resources outlook for the years 2020-2022

3.1 Overview of the past and current situation.

3.1.1 Staff overview for 2018 and 2019

The staff of eu-LISA consist of temporary agents²⁶ (TA), contract agents (CA) and seconded national experts (SNE).

In 2018, the total number of TA staff authorised under the Union budget was equal to 136 posts for temporary agents in the Agency's establishment plan, including 42 posts for the AST function group and 94 posts for the AD function group. In 2018, the establishment plan was cut by two posts in comparison to 2017 and at the same time increased by 23 TA posts, granted for the new/evolved systems: EES, Eurodac Recast and ETIAS.

The budget adopted for 2018 authorised 41 posts for contract agents and nine posts for seconded national experts. Table 3 presents an overview of staff in 2018.

Table 3 – Staff overview in 2018

Area of activity	2018 authorised			2018 actual situation on 31.12.2018		
	TA	CA	SNE	TA	CA	SNE
Establishment plan/authorised posts	113	27	9	108	31	9
LFS EES development	14			14		
LFS Eurodac (not adopted)	2			0		
ETIAS	7	10		0	0	
SIS proposals		4			0	
Total FTEs	136	41	9	122	31	9

Turnover of staff in 2018 reached 4.94 % (8 persons by 31.12.2018), not exceeding the target KPI of 5 %.

In 2019, a staff increase is expected due to the planned new systems and expanded mandate of the Agency. The establishment plan and budget adopted for 2019 authorised 172 posts for temporary agents, 88 posts for contract agents and 11 posts for seconded national experts. A request for additional staff needed for some activities planned for 2019 had not been approved by the budgetary authority in 2018.

Table 4 presents the situation after the adoption of the 2019 budget.

²⁶ These are posts in the Agency's establishment plan. eu-LISA does not have officials posts in its establishment plan.

Table 4 – Staff overview in 2019

Area of activity	2019 eu-LISA request			2019 authorised			difference		
	TA	CA	SNE	TA	CA	SNE	TA	CA	SNE
Establishment plan/authorised posts	113	30	9	113	27	9		-3	
2019 PD - request for additional staff		25						-25	
LFS EES development	14			14					
LFS Eurodac ²⁷	2			2					
LFS SIS recast border /police cooperation		3			3				
LFS SIS recast return		1			1				
LFS ETIAS	7	12.5		7	12.5				
LFS ECRIS-TCN		5			5				
LFS revised ER - staff revision	21	27	2	21	27	2			
Revised ER – additional post for Deputy Executive Director (DED) ²⁸	1						-1		
LFS Interoperability (progressive intake of staff over the years 2019-2023)	14.5	12.5		15 ²⁹	12.5		0.5		
Total FTEs	172.5	116	11	172	88	11	-0.5	-28	

The planning for the years 2020-2022, with a more detailed description of the developments and the necessary staff to achieve the objectives, is provided in paragraph 3.2.2 *Human Resources b) Growth of existing tasks*, where a 3-year outlook is presented. The evolution of the staff quota is described in more detail in the tables in Annex III.

3.1.2 Expenditure for 2018

In 2018, eu-LISA managed a budget of EUR 202.1 million in commitment appropriations and EUR 93.6 million in payment appropriations received from the EU subsidy, out of which the following are subject to the adoption of the legal basis:

New tasks subject to new legal basis*	Expected expenditure (in EUR million)
LFS Eurodac recast	12.138
LFS Dublin Allocation	0.983
LFS SIS recast border/police cooperation	13.103
LFS SIS recast return	2.590
LFS ETIAS	26.763
Total budget subject to new legal basis	55.577

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

The Agency's 2018 budget included appropriations:

- a) For the development of EES and ETIAS, for which the legal basis was adopted but utilisation of the budget was not required in 2018, as the required procurements were either ongoing or in process of preparation.

²⁷ Subject to the adoption of the legal base.

²⁸ The LFS for the new eu-LISA Regulation did not foresee a post for the Deputy Executive Director (DED). It was added to the text of the Regulation at a later stage in the adoption process. Therefore, an additional post was requested for this purpose. It was not granted.

²⁹ With the adoption of the 2019 budget a half-post envisaged in the LFS was rounded up (from 14.5 to 15). In 2019 it is being used to initiate the selection process for the DED.

- b) For the evolution of existing systems (Eurodac, Dublin Allocation, SIS), for which utilisation is conditional on the adoption and entry into force of the respective legal basis;

Additionally,

- c) The initial 2018 budget did not reflect the transfer of the budget for the VIS communication infrastructure, handed over from DG HOME to the Agency as of 30 June 2018.

The amendment to the budget approved by the Management Board addressed the issues highlighted above by:

- Returning EUR 74.3 million in payment appropriations;
- Receiving an additional EUR 1.5 million in commitment appropriations;

Budgetary title	System / Task	amending budget (in EUR million)		
		Commitment appropriations	Payment appropriations	
A01	Staff expenditure	-2.186	-2.186	
	out of which	ETIAS	-1.638	-1.638
		Eurodac recast	-0.268	-0.268
		SIS recast border/police cooperation	-0.210	-0.210
		SIS recast return	-0.070	-0.070
A02	Infrastructure and operating expenditure	-1.658	-1.658	
	out of which ETIAS	-1.658	-1.658	
B03	Operational expenditure	5.304	-70.464	
	out of which	Hand-over VIS Network (C1 appropriations)	5.304	3.803
		SIS recast border/police cooperation		-2.500
		SIS recast return		-1.008
		Eurodac recast		-8.309
		Dublin Allocation		-0.983
		Entry/Exit System		-38.000
ETIAS		-23.467		
Total 2018 amending budget		1.460	-74.308	

Table 5: Breakdown of 2018 amending budget

The late adoption of the legal proposals for ETIAS and SIS II recasts in the last quarter of 2018 and the outstanding adoption of Eurodac recast and Dublin allocation allows the Agency to carry over more than EUR 49.2 million of commitment appropriations from 2018 to 2019 by the Management Board decision, in order to preserve these funds for use in the following years³⁰.

Budgetary title	System/Task	Non-automatic carry-over of 2018 commitment appropriations (in EUR million)
B03 Operational expenditure	Dublin Allocation	0.983
	ETIAS	20.920
	Eurodac recast	11.870
	SIS recast border/police cooperation	12.893
	SIS recast return	2.520
B03 Total		49.186

The Agency had retained its high budget implementation rate by the end of the year 2018:

- 99.5 % for commitment appropriations, taking into account the non-automatic carry-over of commitment appropriations related to new tasks;
- 100 % for payment appropriations including the carry-forward of administrative expenditure to 2019.

³⁰ In line with Art. 14(3) of the Agency's financial regulation

Commitment appropriations				
2018 budget implementation			Budget implementation with carry-over by decision	
2018 final adopted budget	executed commitments	% implemented	non-automatic carry over	% implemented taking non-automatic carry-over into account
202.1	152	75.2%	49.2	99.5%

For running the Agency (Title 1 and Title 2), 14.3 % of the final adopted budget has been foreseen, amounting to EUR 28.9 million, of which EUR 17.8 million referred to staff expenditure and EUR 11.1 million to infrastructure and operating expenditure. The total available operational budget (Title 3 expenditure) amounted to EUR 173.2 million (85.7 % of the total budget), of which EUR 123 million have been executed.

3.2 Resource programming for the years 2020-2022

3.2.1 Financial resources

Over the next years, the Agency will face an increasing budget due to the new tasks assigned to it, partially subject to the adoption of the respective legal bases. The table provides an overview of the new tasks, pending the adoption of the legal basis and the corresponding budget for the 2020 – 2022 planning period.

New tasks subject to new legal basis*	Estimated expenditure (in EUR million)		
	2020	2021	2022
LFS Eurodac	0.268	0.318	0.333
LFS Dublin Allocation	0.735	0.735	0.743
LFS VIS recast		17.186	30.304
Total budget subject to new legal basis	1.003	18.239	31.38

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

The total budget required in 2020 to fulfil the Agency's mandate amounts to EUR 241.1 million, exceeding the MFF 2015-2020 ceiling by EUR 15 million for the transition to the new TESTA network initially not covered by the MFF.

Annex I provides detailed information on operational expenditure by system as foreseen in the PD 2020 and the multiannual planning and justification of the budget. Annex II contains a budget breakdown according to the budgetary structure of the Agency, where operational expenditure is grouped for each system by budgetary chapter.

A detailed breakdown of the budget estimates is provided in Annex II.

3.2.2 Human resources

This single programming document includes the additional staff necessary for the new systems as presented in the relevant legislative financial statements (LFS) for the regulations adopted in 2017, 2018 and 2019, and those planned for adoption in 2020. It does not include eu-LISA's request for additional staff due to the implementation of its Work Programme 2020, on which the European Commission issued a negative opinion³¹ within the procedure for the adoption of the draft budget 2020. The Agency's planning took into account the position of the European Commission as outlined in its 'Programming of Human and Financial Resources for Decentralised Agencies 2014-2020' communication³² to the European Parliament and the Council, dated 10 July 2013, concerning the establishment plan figures. All the staff cuts expected in the Communication were implemented by the end of 2018.

³¹ Statement of estimates of the European Commission for the financial year 2020, SEC(2019)250 – June 2019 available at: https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/draft-budget-2020-wd-13-web-1.4_soe.pdf. Initially, eu-LISA requested two additional TA posts, 21 additional CA posts and two additional posts for SNEs.

³² COM (2013) 519 final. It foresees that a decrease in staff (temporary agents) will result in the following staff levels: 120 in 2015 followed by 118 in 2016, 115 in 2017 and to 113 in the years 2018-2020.

The developments will result in the establishment plan being changed as follows.

Table 6 – Overview of the additional posts for eu-LISA – temporary agents

Temporary agents (TA) – establishment plan change					
Status or project	Comment	2020	2021	2022	Cumulative 2020-2022
European Commission (2013)519 baseline		113	113	113	113
Temporary staff for development of EES	In place from 2018	14	14	14	14
Additional temporary staff for operations of EES ³³	Initially foreseen 17.5 posts will be rounded up to 18 according to the opinion of the EC	18	18	18	18
Additional temporary staff for development of ETIAS	In place from 2019	7	7	7	7
Additional temporary staff for Eurodac recast – COM (2016) 272 – subject to the adoption of the legal instrument	Included in 2017 establishment plan	2	2	2	2
Additional temporary staff due to change in the establishing Regulation	21 in place from 2019	23	23	23	23
Additional temporary staff for interoperability of systems (progressive intake of staff over the years 2019-2027)	15 posts are expected in 2019	25	31.5	31.5	31.5
Additional temporary staff for VIS recast – subject to the adoption of the legal instrument – COM (2018) 302 final		0	4	6	6
TOTAL (including staff subject to the adoption of the legal instruments):		202	212.5	214.5	214.5

Contract agents (CA) are not part of the establishment plan but remain relevant from both a budgetary and workforce-planning perspective. A large number of the CA staff play a crucial role in the operation of the Agency. It is envisaged that some of these posts will enable granting the employment contracts of the indefinite duration, or that the Agency's establishment plan is augmented in future to absorb a great part of the respective jobs in the future.

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

Table 7 – Overview of the additional posts for eu-LISA – Contract agents

Contract agents (CA) – evolution 2020-2022					
Status or project	Comment	2020	2021	2022	Cumulative 2020-2022
Baseline – defined in the LFS for new eu-LISA Regulation		30	30	30	30
Additional contract staff defined in the LFS for new eu-LISA Regulation		27	27	27	27

³³ 14 posts were added to the eu-LISA establishment plan for the development of this system from 2017. The number of posts for 2020 and the subsequent years is to be re-assessed during the preparation of the draft EU budget for 2020, taking into consideration the specific needs for the operation of the system 24/7. Financial resources for an additional 17.5 posts have been planned. This is reflected in the increased number of posts in Table 12 - Global overview of the additional posts for eu-LISA in the years 2020-2022, at the end of this chapter.

Additional contract staff for development of ETIAS	10 posts expected from 2019	25	35	35	35
Additional contract staff for new SIS legal framework border/police/return	Expected from 2019	4	4	4	4
Additional contract staff for the development of ECRIS-TCN	Expected from 2019	5	5	5	5
Additional contract staff for interoperability of systems	12.5 posts expected from 2019	20	26.5	36.5	36.5
Additional contract staff for VIS recast – subject to the adoption of the legal instrument		0	5	7	7
TOTAL (including staff subject to the adoption of the legal instruments)		111	132.5	144.5	144.5

eu-LISA will need to increase the number of authorised SNEs in order to strengthen its cooperation with the relevant Member State authorities, and in particular to enhance the EPPO as well as the Liaison Office. A request for these posts has been transferred to the 2021-2023 single programming document.

Table 8 – Overview of the additional posts for eu-LISA – Seconded National Experts

Seconded National Experts (SNE) – 2020-2022					
Status or project	Comment	2020	2021	2022	Cumulative 2020-2022
Situation in 2017 taken as a baseline		9	9	9	9
Additional SNE positions defined in the LFS for new eu-LISA Regulation	Expected in 2019	2	2	2	2
TOTAL		11	11	11	11

Resources outlook over the years 2020-2022

The main focus, as regards eu-LISA's human resources, will continue to be on combining a regular and flexible approach towards in-house human resources with outsourcing wherever this brings added value with regard to achieving the Agency's objectives in the years 2020-2022.

The numerical information for planning the Agency's human resources is presented in Tables 17 and 18 of Annex III, which provide the staff plan for the duration of the multiannual plan: 2020-2022, while this chapter describes the staffing needs of the Agency in more detail.

a) New tasks

The Agency is preparing to take responsibility for the development and operational management of the new systems, subject to the adoption of the relevant legal instruments, which include the relevant amendments of the establishing Regulation, and for the implementation of the revised founding Regulation.

Following the adoption of the relevant legislation for ETIAS in September 2018, the eu-LISA establishment plan has seen an increase of seven posts for temporary agents. The preparatory recruitment work (selection of suitable candidates and establishment of the reserve lists) was initiated and carried out in 2018. Additional contract agents posts for ETIAS are planned, resulting in a total of 25 CA posts in 2020, and 35 posts in the years 2021 and 2022, which are mainly allocated to helpdesk support (24/7) and five of which are for operators monitoring the Central System (24/7).

Following the adoption of the ECRIS-TCN regulation, five for contract agent posts have been allocated to eu-LISA. The main tasks expected to be performed by the Agency during the implementation phase are project management, development follow-up, and quality assurance and testing of the system.

Following the adoption of the interoperability regulation, additional temporary and contract agent posts will be needed in the years 2019-2027. The tables below present an overview of the profiles and figures in the years 2020-2022, according to the Commission proposal.

Table 9 – Interoperability between EU information systems posts 2020-2022 – Temporary agents

Department	Profile	Function group ³⁴	2020	2021	2022	Cumulative 2020-2022
OD	PM - Programme Manager (Head of Unit)	AD9	1	1	1	1
OD	PM - Project Manager	AD6	0	1	1	1
OD	Project Officer	AD6	1	1	1	1
OD	PM - ESP	AD6	1	1	0.5	0.5
OD	PM - Shared BMS ³⁵	AD6	0.5	0.5	1	1
OD	PM - CIR	AD6	0.5	1	1	1
CSD	Financial management	AD5	0	1	1	1
CSD	Budgetary planning and control	AD5	1	1	1	1
CSD	Procurement/contract mgt.	AD5	2	2	2	2
OD	Technical Experts - Shared BMS	AD5	3	5	5	5
OD	Technical Experts – CIR	AD5	5	5	5	5
OD	Technical Experts – Security	AD5	2	2	2	2
OD	Technical Experts – MID	AD5	2	2	2	2
OD	Technical Experts – Architects	AD5	2	3	3	3
OD	Testing – ESP	AD5	1	1	1	1
OD	Testing - Shared BMS	AD5	2	3	3	3
CGD	Training	AD5	1	1	1	1
	TOTAL		25	31.5	31.5	31.5

Table 10 – Interoperability between EU information systems posts 2020-2022 – Contract agents

Department	Profile	Function group ³⁶	2020	2021	2022	Cumulative 2020-2022
OD	PM - CRRS PM	FG IV	0.5	0	0	0.5
OD	PM - MID	FG IV	0.5	0.5	0.5	0.5
OD	Programme/Project Officer	FG IV	2	2	2	2
OD	PM - Quality Assurance	FG IV	2	3	3	3
OD	Technical Experts - CRRS	FG III	3	3	3	3
OD	Technical Experts - ESP	FG III	4	4	4	4

³⁴ Proposal of the HRU.

³⁵ This post requires further clarification as regards the contract, as it is impossible to offer a half-time contract for temporary agents as indicated in the proposal for 2020 and 2021.

³⁶ Proposal of the HRU.

OD	Testing - CRRS	FG III	1	1	0,5	0,5
OD	Testing - CIR	FG III	1	2	2,5	2,5
OD	Testing - MID	FG III	1	1	1	1
OD	System monitoring - Common (24:7)	FG III	5	10	20	20
	TOTAL		20	26,5	36,5	37

These numbers reach their peak in 2022 and then will start slowly decreasing in the following years, which will be reflected in the next single programming documents. It should be pointed out that some posts with allocated half FTEs for more than one year will require careful consideration that the right competencies are planned for and to mitigate potential risks concerning the employment contracts. Figures affecting the establishment plan are added in Table 18 in Annex III.

The success in ensuring the human resources for this project will depend on the decision to strengthen the Agency's Human Resources Unit at least half a year in advance with the recruitment and personnel administration profiles.

b) Growth of existing tasks

With the adoption of the reviewed founding Regulation, the tasks of the Agency have increased in scope. Therefore, additional staff will join eu-LISA to strengthen its capacity to fulfil the new tasks. In total, 52 new posts have been foreseen in relation to this development (23 (24³⁷) temporary agents, 27 contract agents and two SNE positions by 2020). Their profiles were already listed in the PD 2019-2021

Work on the EES will conclude the development phase and move to the operational phase of the project. The EES regulations include a further increase in the budget for number of staff from 2020. The number of posts for 2020 and the subsequent years will be re-assessed while the draft EU budget for 2020³⁸ is being prepared, taking into consideration the specific needs for operating the system 24/7. A global figure (32 posts³⁹ in 2020) for this purpose is included in *Table 8 – Overview of the additional posts for eu-LISA – Temporary Agents* and the job profiles are proposed in the table below.

Table 11 – Forecast of additional posts for the operational phase of the EES

Unit	Profile	Function group	2020	2021	2022	Cumulative 2020-2022
TBD	System Administrator	AD5	2	2	2	2
TBD	Administrative operational support	AST3	1	1	1	1
TBD	Helpdesk Operators	AST3	9	9	9	9
TBD	Production Application Support	AD5	6	6	6	6
TOTAL	7 AD5, 10 AST3		18	18	18	18

³⁷ 23 posts are foreseen in the Commission proposal. A post in grade-AD13 for the Deputy Executive Director was contained in the establishment plan for 2019 thanks to the postponing of the recruitment of one post for the interoperability of the systems planned in 2019 to 2020. This has to be compensated however. Therefore, we have indicated 24 posts under the new Regulation to reflect this development.

³⁸ 'Technical Study on Smart Borders – Cost Analysis. Final report by PCW, October 2014' in 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 central system 10 FTEs. The amount allocated in the Commission proposal would cover 31.5 posts in total. Therefore, planning of the development phase of the project should be further discussed.

³⁹ 31.5 posts according to the initial proposal were rounded up to 32 posts in the Statement of estimates of the European Commission for the financial year 2020, SEC(2019)250 – June 2019 available at: https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/draft-budget-2020-wd-13-web-1.4_soe.pdf.

No staff figures are foreseen for the Dublin Automated System in the legislative financial statement in the Dublin recast proposal. An overview of the necessary staff per project or single programming document is presented in Table 12.

Table 12 – Overview of the additional posts for eu-LISA in the years 2020-2022

Elements	2020				2021				2022			
	TA	CA	SNE	All	TA	CA	SNE	All	TA	CA	SNE	All
Baseline TA staff (est. plan with cuts) - COM (2013) 519 final	113		9	122	113		9	122	113		9	122
Baseline CA staff - LFS for revised eu-LISA Regulation		30		30		30		30		30		30
LFS for revised eu-LISA Regulation – additional staff	23	27	2	52	23	27	2	52	23	27	2	52
LFS EES (development)	14			14	14			14	14			14
LFS EES (operations)	18			18	18			18	18			18
LFS Eurodac	2			2	2			2	2			2
LFS ETIAS	7	25		32	7	35		42	7	35		42
LFS SIS Borders/LE and returns		4		4		4		4		4		4
LFS on interoperability	25	20		45	31.5	26.5		58	31.5	36.5		68
LFS ECRIS-TCN		5		5		5		5		5		5
LFS VIS recast	0	0		0	4	5		9	6	7		13
TOTAL	202	111	11	324	212.5	132.5	11	356	214.5	144.5	11	370

c) Efficiency gains

The policy objectives are to be achieved taking into account the constraints affecting eu-LISA's budget and the available human resources for the tasks currently performed plus the additional tasks to be taken over by the Agency in the future. Although it is inevitable that every staff member will continue to share the additional workload, the other measures addressing the issue of a gap between the available human resources and the Agency's objectives need to be identified and implemented. Over the last 4 years, eu-LISA has used external service providers to cover the gap identified in IT and administrative profiles. In 2017, the efficiency of this

solution was analysed, which resulted in the inclusion of 27 of the 45 positions that eu-LISA identified for insourcing into additional posts for contract agents in the legislative financial statement of the proposal for the 2018 new founding Regulation. Therefore, some efficiency is expected when the insourcing of intra-muros (contractors on-site) profiles is concluded. Replacing the relevant outsourced profiles with contract staff should also enable the Agency to make some savings⁴⁰. It would also create more effective operations due to applying the same staff and security policies, 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 this has proven to be effective in achieving objectives on a short-term basis for certain tasks.

Recruitment of the additional staff granted to eu-LISA in 2019 and 2020 through the adoption of the new Regulations in the end of 2018 posed a challenge due to the scope (number of posts and specific profiles), timing and the involvement of the Agency's existing human resources. Some efficiency gains are expected in 2020 and 2021, when it will be possible to use the reserve lists created during the selection procedures carried out in 2019 in order to fill posts granted in 2020 and 2021.

Some further efficiency gains should occur in the longer term with work beginning on automation and, where possible, simplification of internal processes, especially administrative tasks such as recording and monitoring the working time of the Agency's staff or document management, etc. However, experience shows that customisation or development of the IT solutions requires increased efforts to prepare the technical specifications and to test the proposed solutions. Therefore, for the IT tools development phase, some extra human resources support is required and the expected efficiencies will be achieved 2-3 years after the solutions are fully implemented.

d) Negative priorities/decrease of existing tasks

There are no negative priorities envisaged by the Agency in the near foreseeable future. However, at the time of preparing this document, it cannot be excluded that the absorption of the additional high-priority tasks allocated to the Agency may potentially result in the need to review the activities planned in the PD 2019-2021, especially in the case of a lack or delay in provision of all the necessary resources, whether financial or human.

e) Redeployment of resources in view of budgetary constraints

Should these constraints affect eu-LISA's budget, a prioritisation of tasks would be considered. For example, staff involved in the development phase of the EES may be re-deployed either to the development of the new system or to the operational phase of the EES depending on the task and the profiles necessary to perform them.

Many initiatives have been undertaken to enhance and further advance the Agency's operations. The main one was the change in the Agency's organisational structure, aiming to make the organisation's development sustainable in the years to come. This change resulted not only in the creation of new sections, units or departments to accommodate the additional staff granted to eu-LISA in 2019 and 2020. It also called for a review of the jobs and profiles and the competencies in place and competencies required in comparison to the number of posts and profiles that were granted to eu-LISA. Requests for additional staff also came from organisational changes, in particular for horizontal profiles, which were not approved in 2018, 2019 and 2020 during the adoption process of the budget estimates for those years, creating gaps in resources in certain areas.

Conclusion on the change in resources compared to the Commission Communication 2014-2020

As stated above, in its human resources planning the Agency has taken into account the position of the

⁴⁰ The cost of external services has been considered as more than 30 % higher than the cost of contract staff in function group II or III.

European Commission outlined in the 'Programming of Human and Financial Resources for Decentralised Agencies 2014-2020' Communication⁴¹ to the European Parliament and the Council, and has included the number of staff in line with Commission guidance in its establishment plan for the next few years. The cuts correspond to 5 % of staff (equal to six posts) and one post for the deployment pool of the European Agencies. In this context, the eu-LISA establishment plan decreased from 120 posts in 2015 to 113 posts in 2018.

These changes to the establishment plan and eu-LISA's human resources over the years, including the outlook for 2018-2020, are reflected in Tables 17 and 18 in Annex III.

⁴¹ COM (2013) 519 final.

Section III Work Programme Year 2020

1. Executive summary

This section elaborates on the activities (operational and horizontal) the Agency intends to implement in 2020. They are based on the political and operational context described above and on agreed internal priorities for 2020.

Operational management and evolutions of the existing systems

In 2020, eu-LISA will stay focused on maintenance and evolutions of the systems entrusted to it; 24/7 first and second-level support will continue to be provided to ensure uninterrupted availability of the systems to the Member States. Efforts will also focus on developing the Common Shared Infrastructure (CSI) for the systems further, and its operational management. The Agency will continue to follow the adopted change management process in close collaboration with the Member States to implement necessary changes in the systems.

To ensure uninterrupted service, the Agency will continue to operate, manage and maintain the backup data centre and backup technical site in St. Johann im Pongau.

Hence, 2020 activities related to the operational management, detailed in Chapter 2, are as follows:

- Operational business-as-usual activities
 - 2.1.1.1 Eurodac maintenance
 - 2.1.1.2 DubliNet maintenance
 - 2.1.1.3 VIS/BMS maintenance
 - 2.1.1.4 SIS maintenance
 - 2.1.1.5 SIS AFIS maintenance
 - 2.1.1.6 SIS support to the Member States
 - 2.1.1.7 24/7 2nd level application support for operational management of core business systems
 - 2.1.1.8 SIS unplanned evolutions (including implementation of parallelisation of DCCs, a study on a better comparison algorithm and/or technologies)
 - 2.1.1.9 24/7 1st level support for operational management of the systems - eu-LISA Service Desk
 - 2.1.1.10 CSI maintenance
 - 2.1.1.11 Operational management/daily system management coordination and shared tasks
 - 2.1.1.12 Release and deployment management activities
 - 2.1.1.13 Licence management
 - 2.1.2.1 Improvements to the Application Lifecycle Management
 - 2.1.1.14 Central Unit/ Backup Central Unit (CU/BCU) daily operation management

In 2020, the systems will evolve mainly to reflect all the new requirements arising from the adoption of the revised legal instruments governing the systems, the implementation of interoperability architecture, and to take full advantage of the CSI.

Projects that commenced in previous years will continue: the BMS database increase, the test environment upscale, interoperability between the VIS and EES. Other important new projects related to the VIS will be

initiated, such as evolutions of VIS stemming from the ETIAS Regulation and the new VIS legal base, subject to its adoption. The implementation of the Eurodac recast requirement may start in 2020 if the regulation is adopted. Apart from functional changes, further capacity upgrades will be performed as needed in order to cope with the impact of the functional changes in the system and the requirements stemming from interoperability regulations.

Eurodac will also need to evolve to interconnect with ETIAS as per the ETIAS legal base. As this evolution may have a huge impact on the transaction throughput of the system and its ability to process incoming transactions within agreed performance levels, an impact assessment shall be done beforehand to assess the feasibility of this implementation within the existing Eurodac architecture or the extent of architectural changes/re-engineering of Eurodac required. This impact assessment will also determine the necessary resources for implementation (human, budgetary). Lastly, Eurodac will evolve to comply with the shared services provisions and standards (based on the outcomes of the ongoing Common Shared Services project).

The possibility of more limited technical evolutions stemming from operational emergencies (unplanned projects stemming from corrective/adaptive maintenance tracks) or following changes in usage trends is expected to ensure stable operations and continuous service provision. The upgrade of the SIS search engine and overall capacity will be finalised. The developments required by the SIS recast regulation will continue with the implementation of the SIS recast and return decisions projects, and design/implementation of SIS ABIS (face recognition) will be initiated. In addition, the SIS will be evolved in terms of expanding its capabilities to interconnect with other systems (such as ETIAS). The SIS pre-production environment (PPE) will be moved outside the mountain at the backup technical site to free space for the production environment. The backup service of the core system will also be moved to virtual tape libraries and DCC functionality will also be improved.

Activities to ensure the interoperability of the systems as per the new legal framework will continue.

Hence, the 2020 activities detailed in Chapter 2 are as follows:

- Operational project activities
 - 2.2.1.1 New SIS legal framework implementation (continuation from 2019)⁴²
 - 2.2.1.2 SIS Return Decision (continuation from 2019)
 - 2.2.1.3 BMS database increase (continuation from 2019)
 - 2.2.1.4 New Search Engine & Oracle upgrade for SIS, improving availability and considering transcription aspects (continuation from 2019)
 - 2.2.1.5 Eurodac Recast implementation (pending adoption of legislation)
 - 2.2.1.6 Eurodac Recast – implementation of face recognition in Eurodac based on study outcomes
 - 2.2.1.7 Test environment (TST) upscale to 100 % of pre-production environment (PPE) (Phase 1) (continuation from 2019)
 - 2.2.1.8 SIS - Central system backup service move to Virtual Tape Libraries
 - 2.2.1.9 SIS Pre-Production Environment (PPE) move from In the Mountain (ITM) to Out of the Mountain (OTM)
 - 2.2.1.10 Core SIS generic interconnection module/interface to allow SIS connections to other systems and implementation of ETIAS inter-connection
 - 2.2.1.11 Eurodac compliance with CSI/CSS services

⁴² Subject to legislative amendments

- 2.2.1.12 Amendments of the VIS regulation (pending adoption of VIS recast legislation)
- 2.2.1.13 Implementation of SIS AFIS Phase 2 (Continuation from 2019)
- 2.2.1.14 Implementation of ABIS for SIS (Face Recognition)
- 2.2.1.15 Continuation of data centre reorganisation activities
- 2.2.1.16 Integration of the Single Integrated Monitoring solution with the event management process, covering all the systems in operation
- 2.2.2.1 Integration of asset management with configuration management (continuation from 2019)

Operational management and evolution of the communication infrastructure

The primary objective of the Agency for the operational management of the core business systems communication infrastructure will be to ensure their uninterrupted availability. In 2020, it is expected that DG DIGIT will sign a new framework contract for the pan-European secure network. In this regard, the Agency will have to implement necessary activities to initiate the transition from the present TESTA-ng network to the new secure network. In addition, projects such as the Unified Wide Area Network perimeter study and design and the EES communication infrastructure implementation will continue during the year. Furthermore, the wide area network of ETIAS will be deployed, and the interconnection with Interpol and Frontex will be established. The WAN connection points of the central system at CU will be relocated to optimise data centre space usage.

Hence, 2020 network activities detailed in Chapter 2 are as follows:

- Operational business-as-usual activities
 - 2.1.1.15 Network services delivery
 - 2.1.1.16 Regular operational management of the communication infrastructure contracts (budget execution, acquisition, renewal, contract management)
- Operational project activities
 - 2.2.1.17 Unified wide area network perimeter – study and design (continuation from 2019)
 - 2.2.1.18 Central systems WAN connections move
 - 2.2.1.19 ETIAS - interconnection with Interpol and Frontex
 - 2.2.1.20 Transition to new TESTA network
 - 2.2.1.21 ETIAS WAN implementation

Development and implementation of new systems

In 2020, the Agency will continue with the development of the EES, ETIAS, ECRIS-TCN and of the interoperability components. Pending adoption of the legislation, the Agency will start the development of DAS.

Hence, 2020 activities detailed in Chapter 2 are as follows:

- Operational project activities
 - 2.2.1.22 Dublin Automated System (pending adoption of legislation)
 - 2.2.1.23 EES implementation (continuation from 2019)
 - 2.2.1.24 Implementation of the ETIAS (continuation from 2019)
 - 2.2.1.25 ECRIS-TCN implementation (continuation from 2019)

- 2.2.1.26 Implementation of the interoperability Regulations
- 2.2.1.27 Central repository for reporting and statistics maintenance and alignment with the legal requirements for interoperability

Security and business continuity

As regards to security, the Agency will continue the implementation of Phase 4 of the common shared security infrastructure, including design and implementation of multi-factor authentication for the EUWS (End User Work Station) network. eu-LISA will operate, plan and develop the business continuity/disaster recovery/emergency response parts of the security and continuity management strategy and will operate, plan and develop its protective elements. In 2020, the Agency will continue to run disaster recovery exercises, providing cybersecurity operations and assurance services for the business systems operated by it.

The physical security of the new sites in Tallinn and Strasbourg will be improved by implementing additional controls to reinforce their resilience.

Hence, 2020 activities detailed in Chapter 2 are as follows:

- Horizontal activities
 - 2.3.7 Horizontal security activities
- Operational business-as-usual activities
 - 2.1.1.17 Implementation of the recommendations coming from the security and business continuity exercises
 - 2.1.1.18 Delivering the information security and assurance service for the core business systems
- Operational project activities
 - 2.2.1.28 Combined disaster recovery exercise for SIS, VIS and Eurodac
 - 2.2.1.29 Implementation of the Common Shared Security Infrastructure Phase 4: design and implementation of multi-factor authentication for the EUWS network

Core business support activities

Statutory reporting will continue in accordance with the relevant legal acts.

During 2020, the Research and Technology Monitoring Roadmap will be implemented, and the eu-LISA library will be updated with new titles.

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

Hence, 2020 activities detailed in Chapter 2 are as follows:

- Horizontal activities
 - 2.3.1 **Error! Reference source not found.** Corporate governance and capabilities building
- Operational business-as-usual activities
 - 2.1.1.19 Implementation of the training plan for the provision of training to the Member States on the technical use of the IT systems managed by the Agency

Corporate governance

To support further development of eu-LISA as a Centre of Excellence, the Agency will continually develop and maintain its operational framework and internal governance model.

As a relevant element of the Agency's governance framework, eu-LISA's internal control register will be updated, and regular monitoring exercises will be carried out to measure compliance with the internal control standards applied. The Agency 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 Single Programming Documents and the Consolidated Annual Activity Report. Other reports will also be delivered if required by the legal base, or ad-hoc.

Efforts with regard to the internal audit are focused on the implementation of the Annual Audit Plan.

The Agency's EPMO will continue to strengthen its capabilities to support project/programme managers in the organisation and to provide assurance services related to the projects and programmes by maturing the project management process, maintaining and evolving the tools to support its activity, and building up mechanisms closely linked to the Agency's governance. It will also continue carrying out ex-ante evaluations.

Hence, 2020 activities detailed in Chapter 2 are as follow:

- Horizontal activities
 - 2.3.1 Corporate governance and capabilities building
 - 2.3.9 Enterprise Project Management Office (EPMO) activities
 - 2.3.10 Implementation of the annual internal audit plan
- Operational business-as-usual activities
 - 2.1.4.1 Continual service improvement services and processes reviews
 - 2.1.4.2 eu-LISA ITSM framework processes run and regular reporting

Policy, stakeholder relations and communications

Partnerships with EU institutions, agencies – in particular those in JHA domain – and other EU bodies will continue. The main focus of this collaboration will be on the development and implementation of new systems, and the evolution of existing systems. The Agency will provide its technical expertise to the Member States and JHA agencies concerned.

The Agency will continue to monitor relevant developments in the JHA area. eu-LISA remains ready to contribute its knowledge and provide assistance in any studies and research on large-scale IT systems in the JHA area, if so delegated by the Commission. The main efforts in corporate communication will revolve around updating strategic framework documents for internal and external communication and further modernising online communication channels, in order to execute the annual external and internal communication action plans efficiently.

- Horizontal activities
 - 2.3.1 Corporate governance and capabilities building
 - 2.3.2 Executive support and stakeholders relations

Financial management, procurement and accounting

In 2020, the execution of the procurement and acquisition plan and the timely delivery of services related to budgetary, procurement and financial management will be the main priority in this strategic action area.

Hence, 2020 activities detailed in Chapter 2 are as follows:

- Horizontal activities

- 2.3.3 Financial management, procurement and accounting

Facilities and corporate services

The Agency has already moved to its new headquarters in Tallinn and to its extended technical site in Strasbourg. In Strasbourg, the 2nd extension of the technical premises, for hosting current and future projects, will have to be initiated, subject to the notification by the Management Board the budgetary authority of the relevant project and the approval of the latter.

As regards corporate IT services, the Agency will maintain and evolve its corporate network architecture, systems and storage architecture, corporate applications and web site hosting. E-learning environments will also be evolved.

Hence, 2020 activities detailed in Chapter 2 are as follow:

- Horizontal activities
 - 2.3.6 Corporate services
 - 2.3.7 Extension of the operational premises in Strasbourg to host current and future projects

Human resources and knowledge management

In 2020, the Agency will focus on five areas of human resources management:

- Standard (business-as-usual) human resources management activities in terms of organisational structure, processes and practices performed in compliance with the relevant rules and decisions;
- Consolidation of the Agency following change, growth and transformation;
- Further development of the learning environment and culture, developing HR function towards business partnerships and strengthening staff development and retention;
- Continuing to develop and implement the Competency Framework to ensure 'the right people are in the right function';
- Training for eu-LISA staff related to operations (technical training) and knowledge management.

Hence, 2020 activities detailed in Chapter 2 are as follows:

- Horizontal activities
 - 2.3.4 Human resources management
- Operational business-as-usual activities
 - 2.1.4.3 Training for eu-LISA staff related to operations (technical training to staff) and knowledge management

Data protection

The data protection Annual Work Report 2020 will be drafted, and the intermediate status on data protection compliance will be reported to the MB. Data protection awareness and the frequency of the awareness sessions on the subject (including a special one on data protection day) will be increased to address the changes arising from the repealed Regulation 45/2001, and the Annual Data Protection survey will be carried out.

Hence, 2020 activities detailed in Chapter 2 are as follow:

- Horizontal activities
 - 2.3.5 Data protection

2. Activities in 2020

2.1. 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.

2.1.1. Activities within the scope of Strategic Goal 1

Operational management and evolutions of existing systems

2.1.1.1. Eurodac maintenance

MAIN ACTIONS OR TASKS

The activity includes:

- Continual monitoring of system operations and its components (monitoring of Eurodac central system's operational status & user connectivity and operations);
- Communication/interaction with the end-user community in order to improve and stabilise operations and provision of user support;
- Provision of 3rd 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 adaptive maintenance);
- Implementation of urgent technical upgrades and interventions coming from corrective maintenance and operational emergencies;
- The following activities are already planned as part of corrective and adaptive maintenance:
 - The national access point (NAP) fingerprint image transmission (FIT) standardised solution will be improved;
 - The Eurodac security patching and documentation project will be carried out, to prevent security breaches and vulnerabilities in the system.
- Managing 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 a system working in accordance with business needs and agreed SLAs.

MAIN CHALLENGES

- A sudden increase in Eurodac traffic (due to a crisis situation) could increase the risk of instability and pressure on resources (human resources, technical environment usage, time constraints) due to unforeseen technical mitigation measures;
- Data centre space availability issues may impact smooth operations (e.g. overheating within racks due to lack of additional space, difficulties to add infrastructure in case of issues, e.g. due to capacity pressures).

Strategic objective	Objective of the activity	Outputs of the activity	Outcome from activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to the stakeholders as per mandate	To maintain Eurodac in optimal working order	1. Eurodac operates as required (stable operations as per SLAs) 2. Eurodac is continuously covered by the technical support guaranteed by its suppliers	The Member States receive reliable and uninterrupted Eurodac services	Conformity with the Eurodac SLA and Eurodac related-Corporate KPIs	Standard and specific Eurodac SLA met 100%	Reports on the performance of the system (based on the operational tools and generated SLA statistics)	PSU

2.1.1.2. *DubliNet maintenance*

MAIN ACTIONS OR TASKS

The activity includes:

- Monitoring of DubliNet operations;
- Generation of encryption certificates for the Member States (recurring activity for all MS upon expiry of the certificates);
- Communication/interaction with the end-user community in order to ensure smooth operations and provide support in case of issues;
- Communication with 3rd party providers for troubleshooting purposes (e.g. TESTA);
- Taking urgent technical measures/performing 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 that works 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 of the activity	Outcome from activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to the stakeholders as per mandate	To ensure smooth DubliNet operations for the Member States	DubliNet operates as required (stable operations as per SLAs)	The Member States receive reliable and uninterrupted DubliNet services	Conformity with the DubliNet operational SLA	DubliNet SLA met 100%	Periodical operational and maintenance reports	PSU

2.1.1.3. VIS/BMS maintenance

MAIN ACTIONS OR TASKS

Guarantee the quality and delivery of contractual deliverables from the MWO FwC. Ensure maintenance services continuity throughout the FwC, under:

- Corrective maintenance: incident management, problem management, change management;
- Adaptive maintenance: follow and anticipate the obsolescence of system components so that the VIS/BMS constantly remains compliant with state-of-the-art technologies and to ensure availability of support for component manufacturers or editors;
- Perfective maintenance: improve, based on technical expertise and identified upturns, VIS/BMS components so that they perform optimally;
- Preventive maintenance: perform changes onto 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 a VIS/BMS working in accordance with the VIS/BMS legislative framework and agreed SLA.

MAIN CHALLENGES

To ensure that the VIS/BMS changes required as per maintenance activities are properly integrated into the global VIS/BMS roadmap, and timely deployed so that the system performs according to the VIS/BMS legislative framework and agreed SLA.

Strategic objective	Objective of the activity	Outputs of the activity	Outcome from activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to the stakeholders as per mandate	To ensure that the VIS/BMS performs as per availability & performance requirements and that events are managed according to ITSM and SLA with end users. With adaptive maintenance, ensure that VIS/BMS is covered by manufacturers' support.	VIS/BMS perform as per SLA.	VIS/BMS behave 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 end users.	Conformity with the VIS/BMS SLA	VIS/BMS maintenance activities lead to the system performing according to the service level agreement, anticipated improvements and prevented incidents. (Please see Annex XI)	Periodical operational and maintenance reports including SLA and Monthly Service Reports	PSU

2.1.1.4. SIS maintenance

MAIN ACTIONS OR TASKS

This activity includes:

- Corrective maintenance: incident management, problem management, change management, release management;
- Adaptive maintenance: follow and anticipate the obsolescence of system components so that the SIS constantly remains compliant with state-of-the-art technologies and to ensure availability of support for component manufacturers or editors; implementation to be 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.);
- Managing interaction with the MWO contractor and contractual follow-up for the above aims.

VALUE ADDED

SIS central system available 24/7 under SLAs.

MAIN CHALLENGES

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

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To ensure 24/7 availability of the system	SIS C.SIS available 24/7 under SLAs (availability, performance, etc.)	SIS system available and under SLAs in 2020	Conformity with the SIS SLA and SIS related-Corporate KPIs	Standard and specific SIS SLA met 100% (Please see Annex XI)	Internal SIS data Service desk data second-level support eu-LISA available data Periodical operational and maintenance reports	PSU

2.1.1.5. SIS AFIS maintenance

MAIN ACTIONS OR TASKS

This activity includes:

- Corrective maintenance: incident management, problem management, change management, release management;

- Adaptive maintenance: follow and anticipate the obsolescence of system’s components so that SIS AFIS constantly remains compliant with state-of-the-art technologies and to ensure availability of support for component manufacturers or editors; implementation to be 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.);
- Managing interaction with the MWO contractor and contractual follow-up for the above aims.

VALUE ADDED

SIS AFIS available 24/7 under SLAs.

MAIN CHALLENGES

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

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To ensure 24/7 availability of the system	SIS AFIS available 24/7 under SLAs (availability, performance)	SIS AFIS system available and under SLAs in 2020	Conformity with the SIS SLA	Standard and specific SIS SLA met 100% (Please see Annex XI)	Internal SIS data Service desk data Second-level support eu-LISA available data	PSU

2.1.1.6. SIS support for Member States

MAIN ACTIONS OR TASKS

This activity includes:

- Provide ongoing support to the Member States during the qualification process of their individual national systems;
- Conducting tests and qualification campaigns.

VALUE ADDED

- Proper functioning of the Member State national systems;
- Member State operations overall not impacted by problems in other Member States’ systems;
- Conformity with 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	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To ensure that national systems are ready to operate with central system	Testing reports for different stakeholders confirming the readiness of Member States to operate with core SIS	Support for national systems properly delivered	Quality and time of Member State integration Adherence to Member States' testing plan	No deviation from Member States' national systems testing plan	SIS data Operational and testing data Information from new Member States (if any)	TTU

2.1.1.7. 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 requests for change and releases) and technical support for projects.

VALUE ADDED

The Agency will fulfil its legal obligations and will provide the Member States with applications that work in accordance with their business needs. Maintenance activities lead to systems performance according to the service level agreements, anticipated improvements and prevented incidents.

MAIN CHALLENGES

To ensure that the application changes required as per maintenances activities are properly integrated into the global roadmap and deployed punctually so that the system performs according to business needs.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To ensure uninterrupted and high quality 24/7 level-2 applications operations management of CBS	Uninterrupted and high quality 24/7 level-2 applications operations management of CBS	CBS and the Member States receive a reliable service for the applications including databases	Conformity with the operational SLA of the applications	Maintenance activities lead to the system performing according to the SLA, anticipated improvements and prevented incidents.	Reports on the performance of the system and SLA	SOU

2.1.1.8. *SIS unplanned evolutions (including implementation of parallelisation of DCCs, a study on a better comparison algorithm and/or technologies)*

MAIN ACTIONS OR TASKS

Depending on the particular change requested, this activity will include:

- Implementation of parallelisation of DCCs;
- A study on a better comparison algorithm and/or technology;
- Other ad hoc actions/tasks as they arise.

VALUE ADDED

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

MAIN CHALLENGES

The risk inherent in unplanned activities; impact on overall planning.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To ensure that all necessary unplanned evolutions of the system are handled in a systematic and appropriate manner	SIS will implement changes as defined by the stakeholder community	New SIS central system release	Cost, schedule and scope	Green	Project dashboard	PSU

2.1.1.9. *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, Eurodac, including:

- Effective communication to the 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;
- Regular contributions to knowledge management as well as to the knowledge database.

VALUE ADDED

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

MAIN CHALLENGES

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

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	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 everyday support activities and customer satisfaction	Efficient and effective first-level support for eu-LISA core business systems and reliable communication for eu-LISA customers and stakeholders	Core business systems and Members State users receive efficient and reliable services as first level of support and communication via the agreed communication channels	Service Desk Performance indicators; Annual Customer Satisfaction survey	For Service Desk Performance indicators: above 80% For the Annual Customer Satisfaction survey: above 80%	The respective Service Desk Performance indicators reports Annual Customer Satisfaction survey	SOU

2.1.1.10. CSI maintenance

MAIN ACTIONS OR TASKS

This activity includes:

- Regular follow-up of CSI programme;
- Regular follow-up including an update of configuration items status via incident/problem/change and request management;
- Applying technical and security patching;
- Implementing corrective maintenance;

VALUE ADDED

- CSI infrastructure availability met as per SLA;
- Activities related to shared services (i.e. application security tools, common monitoring, etc.), procured outside CBS contracts, are maintained and supported via a unique MWO.

MAIN CHALLENGES

Brand new contractor for CSI without eu-LISA CBS experience.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Proactively Identifying any CIs reaching the end of support period; Keeping all CIs under appropriate vendor support	Continuous maintenance of the Common Shared Infrastructure according to the infrastructure inventory and CSI service catalogue	Mandatory maintenance within FwC CSI including programme management	Conformity with maintenance SLAs CBS performance indicators	100%	KPI measurement via ITSM Tool Monitoring of CBS availability	IMU

2.1.1.11. Operational management/daily system management coordination and shared tasks

MAIN ACTIONS OR TASKS

This activity includes:

- Coordination of operational activities;
- Change management;
- EUWS management.

VALUE ADDED

All systems administration operations provide the necessary reliable and available (in accordance with SLA) services to CBS and CSI.

MAIN CHALLENGES

Ensuring that all services are provided as per business expectations and technical specifications.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services	Proper maintenance, set-up and monitoring of the CBS under eu-LISA's management to	Secure and reliable operational management of CBS	Both CBS and the Member States receive a reliable	Conformity with CBS and CSI SLAs	All systems infrastructure to be available, in compliance with	SMg ITSM reports	IMU

to stakeholders as per mandate	ensure secure and reliable infrastructure		infrastructure in line with agreed SLAs		specific services and SLAs as defined in eu-LISA's Service Catalogue and Service Level Management process		
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2.1.1.12. Release and deployment management activities

MAIN ACTIONS OR TASKS

The release and deployment management of all CBS includes the coordination and follow-up of all the activities related to all the phases of the process: planning, building, testing and validation, deployment, review and closure. Activities include the following:

- Defining and agreeing on the release and deployment management plans;
- Ensuring the integrity of the release packages they comprise and testing them;
- Ensuring release packages can be installed and rolled back;
- Recording and managing risks, issues and lessons learnt and taking corrective actions;
- Ensuring that skills and knowledge are transferred to operations and users.

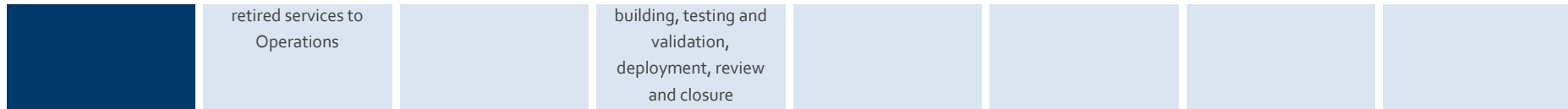
VALUE ADDED

The Agency delivers technical and business changes by minimising risks and provides the Member States with applications that work in accordance with their business needs. It also improves consistency in the implementation approach to all Core Business Systems.

MAIN CHALLENGES

To ensure that the changes required through maintenances activities are properly integrated into the global roadmap and deployed punctually so that the system performs according to business needs.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	The objectives are to define and agree on release and deployment plans and to formally handover the new, modified or	Releases planned, defined, tested and implemented in the production for all CBS	Better coordination and follow-up of all the activities related to the release and deployment management on all the phases: planning,	Delivery of the release plans Implementation of the releases for the Core Business Systems	Release plans created and agreed in Q1 Releases deployed as per release plans	Agreed release plans	TTU



2.1.1.13. Licence management

MAIN ACTIONS OR TASKS

Ensure that licences used at eu-LISA are managed centrally and that support renewal anniversary dates are aligned whenever possible.

VALUE ADDED

Licences managed through unique contract benefit from negotiated prices (i.e. Oracle ULM contract negotiated at Commission level). Alignment of renewal anniversary dates reduces the number of renewal procedures.

MAIN CHALLENGES

The transition from multiple contracts to a centralised contract requires the involvement of many contractors operating under different conditions.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Follow-up of the different licences used at eu-LISA	Continuous support for licences used by eu-LISA (CBS and shared projects)	Licences used at eu-LISA are supported in accordance with the SLA required by the different CBS.	Amount of licences having their support contract managed centrally	Oracle (50%) Backup software (50%) Linux OS (20%)	CBS contracts CSI contract	IMU

2.1.1.14. Central Unit/ Backup Central Unit (CU/BCU) daily operation management

MAIN ACTIONS OR TASKS

This activity includes:

- Daily data centre management;
- Management of relations with the Austrian authorities;
- Capacity management.

VALUE ADDED

Data centres providing adequate service.

MAIN CHALLENGES

- Systems delayed in their implementation;
- Data centres running out of capacity.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Maintain both Data Centres in working condition	Continuous maintenance and capacity follow-up of both Data Centres (CU and BCU)	Data centres (CU and BCU) perform as required, providing the Agency with the necessary functionality	Availability of data centres resources (cooling, power)	100%	Monitoring tool	IMU

*Operational management and evolution of the communication infrastructure***2.1.1.15. Network services delivery****MAIN ACTIONS OR TASKS**

This activity includes:

- Core business systems (Eurodac, SIS, VIS, EES, ETIAS) local network infrastructure operational management;
- Local management network (EUWS) operational management;
- SIS second encryption layer operational management;
- VIS second encryption layer operational management;
- VIS Mail systems operational management;
- SIS Mail systems operational management;
- Network management processes evolution;
- Network architecture evolution.

TESTA-related activities:

- Supervision, which includes analysis and review of operational reports, organisation of regular meetings related to the operations and action follow-up with the provider, requests for change and technical parts of service orders;
- Coordinating relations between Member States and the provider: maintenance of contact lists in the Member States and coordination of all network activities having an impact on a Member State;
- Proposing technical specifications as requested by the Commission;
- Identification, evaluation and implementation of improvements to network services.

VALUE ADDED

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

MAIN CHALLENGES

To ensure that services are provided according to business expectations and technical specifications.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services 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 in communication infrastructure and related communication systems	Conformity with the communication infrastructure SLAs	The communication infrastructure and communication infrastructure systems (VIS Mail, SIS Mail) will be available according to the system-specific SLA outlined in eu-LISA Service Catalogue	Reports on the performance of the systems and SLA	IMU

2.1.1.16. Regular operational management of the communication infrastructure contracts (budget execution, acquisition, renewal, contract management)

MAIN ACTIONS OR TASKS

This is an ongoing activity started after the communication infrastructure contracts handover to eu-LISA. It covers:

- Extending or renewing support on the SireneMail and VIS mail components;
- Acquisition and renewal of the second encryption layer components;
- Contractual management of the TESTA-ng specific contracts for services needed by the Agency;
- Contractual management of the VIS and SIS Mail systems support contracts;
- Contractual management of the VIS and SIS second encryption layer contracts;
- Providing specifications for the extension of specific contracts.

VALUE ADDED

The Agency will fulfil its legal obligation and provide the Member States with a communication infrastructure for the systems in accordance with the legal instruments and SLA.

MAIN CHALLENGES

VIS and SIS communication infrastructures are contracted through the TESTA-ng II Framework contract. This framework contract will expire on 30 June 2020. The call for tenders for the next generation of the network is under preparation by DG DIGIT. The call for tenders schedule and business constraints will not allow migration of the VIS/EES/ETIAS and SIS Communication Infrastructures to the next generation of the network before the expiry of the TESTA-ng II Framework contract. Therefore, the continuity of the services provided under TESTA-ng II Framework contract will have to be arranged through a negotiated procedure. This need represents a significant challenge in terms of time, conditions and pricing.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Ensure that communication infrastructure performs as per requirements in terms of availability and performance. For SireneMail and VIS mail, in particular, all components must be covered by third party and manufacturing support	Maintenance of the communication infrastructure is managed so that the system performs as per SLA and support is provided to the Member States	Communication infrastructure behaves as per requirements. Events preventing the system from behaving properly are managed promptly so that performance remains within the SLA	Conformity with the communication SLA	Communication infrastructure performing according to the SLA's anticipated improvements and prevented incidents	Monthly SLA reports	IMU

Security and business continuity

2.1.1.17. Implementation of the recommendations 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

Assurance of 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	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Strengthen security, cybersecurity and information management capabilities	To ensure the security and business continuity of the systems	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 implementation of the action plan	85%	Post-implementation review reports	SEC

2.1.1.18. Delivering the information security and assurance service for the core business systems

MAIN ACTIONS OR TASKS

Plan and Manage	Identify	Assure	Protect	Detect	Respond	Recover
<ul style="list-style-type: none"> - Security policy, standards and guidance; - Security architecture; - Security awareness and training; - Reporting and communication; 	<ul style="list-style-type: none"> - Security risk management; - Threat modelling; - Threat intelligence; - Asset identification; 	<ul style="list-style-type: none"> - Security assessments and audits; - Vulnerability assessments and penetration testing; - Cybersecurity exercises and Red Team; 	<ul style="list-style-type: none"> - Identity and access management; - Secure configuration; - Network security; - Secure system development and application security; - Endpoint security; - Cryptography and PKI; 	<ul style="list-style-type: none"> - Security event and incident monitoring; 	<ul style="list-style-type: none"> - Security incident management; - Digital forensics; 	<ul style="list-style-type: none"> - ICT business continuity management.

			- Technical vulnerability management;			
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VALUE ADDED

- Security risks managed to an acceptable level;
- Compliance with legal and business requirements;
- Increased trust of stakeholders;
- Increasing the 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;
- Increase in complexity of project activity outstripping resource capacity.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Strengthen information security capabilities related to the systems entrusted to the Agency	Delivering the Cybersecurity Operations & Assurance Service in accordance with the security requirements and objectives established by the Agency's security rules, which are aligned with Commission Decision 2017/46.	Security policy; security risk management; security plans; security awareness and training, security architecture, security assessments and audits; software licences; security testing, security monitoring, security incident management, security guidance	Assurance that information security risks will be managed to an acceptable level	(1) percentage of business processes and services covered by the information risk management process (2) percentage of staff that have completed the security awareness e-learning training (3) percentage of security controls implemented in each Information System Security Plan (4) percentage of quarterly security tests conducted versus planned	(1) 60% (2) 75% (3) 65% (4) 75%	Internal risk assessment reports E-learning reporting Self-assessment questionnaire Security assessment reports	SEC

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

2.1.1.19. *Implementation of the training plan for the provision of training to the Member States on the technical use of the IT systems managed by the Agency*

MAIN ACTIONS OR TASKS

Organising and delivering training as foreseen in the approved annual training plan.

VALUE ADDED

Member States’ technical knowledge of the systems grows, resulting in better performance at the national level. The Member States receive tailored training on the technical use of the systems.

MAIN CHALLENGES

- Availability of eu-LISA staff to provide training and of contractors to prepare and deliver specific training courses;
- Multiple parallel projects involving new system developments place excessive time demands on Member States experts dealing with eu-LISA systems, meaning that they have limited time to participate in relevant training courses. This would result in a gradual decrease in competences at MS level.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to the stakeholders	Member States’ knowledge of the technical functioning and use of the systems is enhanced and applied	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	A responsive and tailored systems training programme is in place that meets in full the needs of stakeholders	Satisfaction rate: scale 1-5, 1 lowest, 5 highest (scale is subject to future change)	Average not less than 3 (scale 1-5)	Evaluation forms	GCU

2.1.2. **Activities within the scope of Strategic Goal 2**

Operational management and evolutions of the existing systems

2.1.2.1. *Improvements to the Application Lifecycle Management*

MAIN ACTIONS OR TASKS

eu-LISA is currently facing challenges with end-to-end:

- traceability of application development artefacts;
- formalisation of application lifecycle processes and governance framework;
- lack of needed automation level for the application lifecycle management.

This had led to difficulties in accessing information or documentation throughout the application development processes. The plan for introducing an efficient Application Lifecycle Management (ALM) process and the use of a set of automation tools will have an impact across all operational units of the Agency. However, the current situation that the Agency is facing, developing several key new large-scale IT systems (starting with EES) at the same time, requires a flexible and gradual approach for the implementation of ALM, and the achievements of quick wins, before the implementation can be extended agency-wide. ALM implementation is already planned as a dedicated activity in the Single Programming Document 2020-2022 and will be finalised in 2021.

The 2019 ALM study is expected to increase knowledge on ALM capability and define some key elements for its implementation, such as processes and governance. It will foster the more consistent and more efficient use of tools. It will also support the planning of the activities required for the full ALM solution implementation, starting 2020, to be finalised in 2021.

VALUE ADDED

- Less human failure due to higher automation;
- Quicker recovery.

MAIN CHALLENGES

- Procurement rules.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to stakeholders	Ensure the availability of tools and procedure to ensure a continuous delivery model providing more flexibility and agility	Products, tools and procedures	Quicker delivery of releases	Time to market (in comparison with previous year)	More releases Quicker changes Quicker test campaigns Higher automation	Annual release plan	TTU

2.1.3. Activities within the scope of Strategic Goal 3

Not applicable. No business-as-usual activities for Strategic Goal 3 are planned in 2020.

2.1.4. Activities within the scope of Strategic Goal 4

Corporate governance (Centre of Excellence, governance, planning and corporate statutory reporting, quality management, internal audit, etc.)

2.1.4.1. Continuous service improvement services and process reviews

MAIN ACTIONS OR TASKS

Every 2 years, reviews of eu-LISA’s services and process model are carried out using pre-defined templates and procedures, as part of the continuous service improvement policy document. The service model is based on the eu-LISA service catalogue; the process model covers all the ITSM processes in place. As an additional potential outcome, the improvements needed to the tools will be defined and implemented.

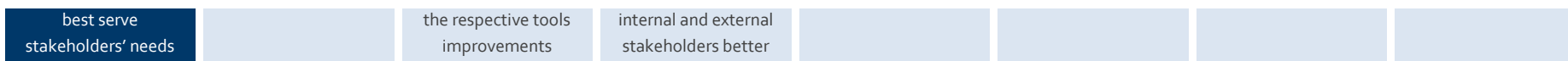
VALUE ADDED

- Much more efficient and effective processes in place, significant increase in eu-LISA’s operational performance and meeting all stakeholder expectations;
- Minimising the risks related to service measurement, guaranteeing a pragmatic and realistic approach for service measurement and reporting;
- Improvements needed to the tools will be defined and implemented.

MAIN CHALLENGES

- Lack of sufficient commitment and contributions to internal resources;
- Lack of external contractors for project management and improving the tools.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously align business objectives with capabilities, processes and resource allocation to	To review and update ITSM processes and those provided by eu-LISA services	Up-to-date eu-LISA process and service model addressing the new systems requirements, new services demand and	Continuous service improvement validation of existing ITSM processes and services provided, serving eu-LISA	Continuous service improvement process KPIs	Target values are part of the eu-LISA continuous service improvement policy document	Quarterly reporting on process KPIs	SOU



2.1.4.2. *eu-LISA ITSM framework process run and regular reporting*

MAIN ACTIONS OR TASKS

This activity includes:

- Daily ITSM process run, efficient use of the planned process roles;
- Running the processes properly, considering possible improvements in process definition as well as process implementation;
- Regular reporting on process KPIs and on the agreed SLAs;
- Monitoring and suggesting changes to processes via Continuous Service Improvement to support the implemented process life cycle;
- 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 the new processes required as part of the eu-LISA ITSM Framework;
- Maturity evolution for processes via Continuous Service Improvement;
- Maintenance of register with improvements and initiatives;
- Optimised efficiency by leveraging ITSM tool capabilities to eu-LISA systems and contractors’ support.

MAIN CHALLENGES

- Lack of priority given to tasking;
- Lack of proper process control and supervision.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously align business objectives with capabilities, processes and resource allocation to best serve stakeholders’ needs	To maintain, monitor and report on the eu-LISA ITSM processes properly	eu-LISA ITSM processes are run efficiently and effectively	Core business systems and the Member States receive reliable services, based on the eu-LISA ITSM Framework	Conformity with process KPIs	Agreed levels of process KPIs.	Documentation of respective processes KPIs reports	SOU

*Human resources and knowledge management***2.1.4.3. eu-LISA staff training on operations (technical training) and knowledge management****MAIN ACTIONS OR TASKS**

This activity includes:

- Training organised in-house (analysis, design, development, implementation, evaluation, gap analysis, alignment, follow-up) and knowledge sharing;
- Knowledge management as per knowledge management policy (currently being drafted at the time of dating this document);
- Creation of e-learning content;
- Administration of the training;
- Supporting operations and Project Managers in the implementation of upgrades in current systems and the launch of new features and systems;
- Setting up the appropriate environment to allow staff to learn and experiment;
- Cooperation with the Operations Department on the planning and delivery of technical training sessions;
- Organisation of study visits to the Member States for staff.

VALUE ADDED

- eu-LISA's operational staff will be able to perform better and offer better services to the Agency's stakeholders;
- Increased added value of systems, data and technology to the stakeholders;
- Becoming a trusted advisor and technical enabler to stakeholders on matters within the Agency's mandate;
- Positive image towards internal and external stakeholders developed and maintained;
- Continuing to be an attractive employer, retaining and continuously developing staff.

MAIN CHALLENGES

- Insufficient Human Resources and expertise available;
- Increased number of newcomers to go through technical onboarding programme;
- Existing staff members not passing the certification process.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continue to be an attractive employer,	Respond to technical training needs; grow	Courses for OPS & applications provided	eu-LISA's staff will be able to perform better;	1. Number of training activities organised	1. 50 training activities organised	SMART reports, iLearn statistics and Work	HRU

<p>retain and continuously develop staff</p>	<p>as a hub of knowledge and maintain operational excellence; Identify new solutions to optimise business processes; ensure knowledge is captured; organise activities after analysis; evaluate impact to business;</p>	<p>to staff; create training lab; implement knowledge management policy; technical onboarding; create certification process prior access to core systems; organisation of study visits to the Member States for staff</p>	<p>eu-LISA will be acknowledged as a hub of expertise and knowledge</p>	<p>2. General satisfaction level 3. Increase awareness about Knowledge Management Database 4. 100% of newcomers have followed technical onboarding programme 5. Number of study visits performed 6. Number of staff passing the certification process</p>	<p>2. Satisfaction level above 85% 3. At least 2 awareness sessions organised 4. 100% of newcomers followed technical onboarding programme within 3 months of arrival 5. At least X⁴³ number of study visits organised 6. 100% of technical staff (with hands on systems) to pass the certification process</p>	<p>Programme progress reports.</p>	
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2.2. Operational project activities

This section covers the Agency’s core operational business activities performed on a project basis. Project performance is monitored according to the Agency’s project management methodology. In line with this methodology, project performance indicators retained for the Agency’s corporate reporting are cost, schedule and scope. For reporting on performance indicators, the Agency uses a ‘RAG’ (red, amber/yellow, green) traffic light rating scale. This scale indicates whether costs, schedule and scope deviations are within agreed tolerances (green), at risk of getting outside agreed tolerances (amber) or outside agreed tolerances (red).

2.2.1. Activities within the scope of Strategic Goal 1

Operational management and evolutions of the existing systems

2.2.1.1. New SIS legal framework implementation (continuation from 2019)

MAIN ACTIONS OR TASKS

⁴³ The number of study visits is not indicated, it will depend on budgetary and human resources constraints.

This activity includes:

- New functionalities, business rules, data fields, alerts and object categories under Articles 26, 32, 36 and 38 of the SIS Decision;
- 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.

PREVIOUS YEARS’ ACHIEVEMENTS

In 2019, eu-LISA will start with the developments related to the new SIS legal framework.

VALUE ADDED

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

MAIN CHALLENGES

- There will need to be close coordination of all stakeholders at every stage of this project;
- The Member States will have to reach the given ICD milestones by the set time;
- Implementation, to enable testing operations, as this is a major step in delivering the project.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To provide new categories of alerts in the SIS, additional data fields, new object categories and new users to the system	The project will provide new functionalities defined in the new SIS legal base for law enforcement and border control	A new SIS central system release including the new SIS core functionalities identified in the recast legal instrument (return decision not included)	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.2. SIS return decision (continuation from 2019)

MAIN ACTIONS OR TASKS

This project will develop and implement the requirements on return decisions set in the new SIS legal instrument.

PREVIOUS YEARS’ ACHIEVEMENTS

In 2019, the Agency will start the SIS return decision project.

VALUE ADDED

Improved migration and law enforcement SIS capabilities through improved control on and status and information of return decisions issued (currently not properly controlled).

MAIN CHALLENGES

- There will need to be close coordination of all stakeholders at every stage of this project;
- The Member States will have to reach the given ICD implementation milestones by the set time;
- Failure to employ appropriate business knowledge on current activities and practises regarding European return decisions will jeopardise the project.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To provide new alert categories (return decision) plus related functionality	This project will provide a new return decision functionality defined in the new SIS legal base	A new SIS Central System release including return decision functionalities.	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.3. *BMS database increase (continuation from 2019)*

MAIN ACTIONS OR TASKS

This is the final phase of the BMS, PPE and PRD upscale multiannual project that commenced in 2017 with the aim of improving the storage capacity of BMS from 60 million to 85 million fingerprint template records. The upscale includes both PPE and PRD in its scope, starting with PPE so as to be able to qualify the changes before rolling them out to PRD successfully. 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 in 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 licenses is also one 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. Activities in 2020 will focus on final system acceptance and project closure activities.

PREVIOUS YEARS' ACHIEVEMENTS

The entry into operation of the upscaled BMS system to 85 million fingerprint template records is planned for the end of 2019.

Before upscaling the BMS, several activities are to be performed:

- Alignment of the PPE with PRD and upscale of the PPE to 85 M;
- Security assessment;

- Virtualisation of both PPE and PRD;
- Transactional throughput alignment between VIS and BMS.

VALUE ADDED

Compulsory development to ensure sufficient database storage capacity for production business operations. Without this evolution, and considering the Agency’s latest forecasts, BMS will have reached its database capacity ceiling of 60 million in 2019, causing a huge impact on business (no possibility to insert new visa applications) for the Member States.

MAIN CHALLENGES

The following risks can be identified:

- Unavailability of PPE for the requested duration;
- Unavailable data centre space in case new racks are required;
- Unavailability of internal resources causing delays for various project phases.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Extension of the existing database capacity of BMS to 85 million fingerprint template records	The expected output is an updated BMS database storage capacity in order to support up to 85 million fingerprint template records	Appropriate continuation of an existing service provided by eu-LISA to Member states	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.4. New search engine & Oracle upgrade for SIS, improving availability and considering transcription aspects (continuation from 2019)

MAIN ACTIONS OR TASKS

This activity includes:

- Implementation of state-of-the-art search engine including new search functionalities;
- Increasing query capacity;
- Reassigning resources to increase alerts capacity;
- Optimising overall capacity.

PREVIOUS YEARS' ACHIEVEMENTS

Implementation of the project. During 2020 the final system acceptance phase should be closed, right after deployment.

VALUE ADDED

- State-of-the-art search functionalities;
- Additional capacity for queries (8 times from original SIS CS design);
- Additional capacity for alerts.

MAIN CHALLENGES

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

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Obtain cost efficient state-of-the-art search functionalities Additional capacity in Central System. Allow the same engine to be used in the near future in the Member States	SIS Central System will implement a new search engine for additional capacity on queries and alerts Associated documentation upgraded	New SIS Central System cost efficient state-of-the-art search functionalities, additional query and alerts capacity; prepare search engine module for National Systems	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.5. *Eurodac Recast implementation (continuation from 2019)*

MAIN ACTIONS OR TASKS

This activity includes:

- ICD updates;
- Cooperation with the AG and the Member States with groups of experts and the project management forum to coordinate the central and national project implementation and planning alignment;
- Finalisation of the implementation of Eurodac functional updates as per the new legal act
- Increase database capacity and transaction throughput based on continuous monitoring of core system traffic and usage trends, as well as traffic projections due to the scope extension;

- Testing and qualification of the new Eurodac release in PPE;
- Performing operational tests with the Member States and system acceptance testing before deployment to production;
- Initiating project closure activities and providing Final System Acceptance;
- Concluding the study on face recognition and deciding on the timetable for the inclusion of face recognition in Eurodac
- Core Eurodac generic interconnection module/interface to allow Eurodac connections to other systems and implementation of ETIAS connection.

PREVIOUS YEARS’ ACHIEVEMENTS

Depends on the adoption of the legal base.

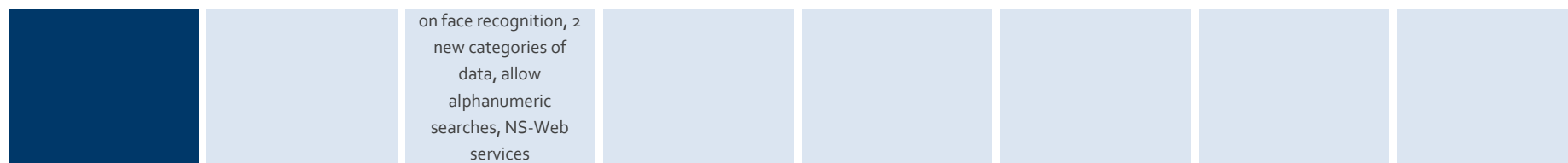
VALUE ADDED

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

MAIN CHALLENGES

- Complexity and difficulty of aligning planning between CS and NS projects may introduce delays in testing and system readiness;
- Data centre space availability issues may seriously impact the implementation of the project (new infrastructure/rack space will be needed, especially for the capacity upgrades);
- Resource unavailability may negatively impact the project;
- Risk of non-availability of technical environments for testing, release deployment etc. due to complex parallel projects;
- Risk of high investment in the existing architecture dictated by the legal basis, while the interoperability provisions may require a redesign of the existing architecture;
- Contractual risks as the budgetary planning of the running MWO did not take into account Recast (not known at this point). New procurement or significant amendments may lead to delays.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To align Eurodac with the requirements set in the Recast Eurodac Regulation; to properly size Eurodac in order to sustain the increased load due to new business needs from Eurodac recast	CAT _{1,2,3} stored and searched, facial images stored & retrieved, new biographic (+IDs) data stored & retrieved, new data retention periods apply, age limits lowered, a study	Eurodac in line with the Recast provisions and sized properly to allow compliance of the Member States with the new legal basis	Cost, schedule and scope	Green	Projects dashboard	PSU



2.2.1.6. *Eurodac Recast – implementation of face recognition in Eurodac based on study outcomes*

MAIN ACTIONS OR TASKS

This activity includes:

- ICD Updates;
- Cooperation with the AG and the Member States with groups of experts and the project management forum to coordinate the central and national project implementation and planning alignment;
- 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.

PREVIOUS YEARS' ACHIEVEMENTS

When the corresponding legal basis is approved, implementation will start and the study providing input for the implementation of face recognition will be concluded.

VALUE ADDED

The Agency will fulfil its legal obligations and will provide the Member States with a system that works in accordance with their business needs. The system will be able to support face comparisons together with fingerprint matching, thus providing better evidence to the Member States when fulfilling their asylum or return tasks. It will also allow them to fulfil their obligations when it is impossible to use fingerprinting, which has led to missed registrations and a lower level of security.

MAIN CHALLENGES

- Risk of not being able to accommodate such a big architectural change in the current Eurodac (will be shown by the results of the study);
- Rather a big change to accommodate under the running MWO contract. Possible new procurement or significant amendment could lead to delays;
- Complexity and difficulty of aligning planning between CS and NS projects may introduce delays in testing and system readiness;
- Resource unavailability may negatively impact the project (additional FTE need to be approved by COM, and a new External support contract needs to be in place);
- Data centre space availability issues may seriously impact 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;
- The possible decision for a common ABIS or other architectural changes will introduce great complexity and pressure on resources to handle in parallel.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services 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 them more advanced technical capabilities with multimodal biometrics search and storage	Eurodac updated as a multimodal biometric system: face recognition component introduced to allow for face comparison together with fingerprint comparison	Eurodac brought into line with the new legal provisions and increased matching accuracy provided through multimodal biometric capabilities	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.7. *Test environment (TST) upscale to 100% of pre-production environment (PPE) (Phase 1) (continuation from 2019)*

MAIN ACTIONS OR TASKS

Since the entry into operation of the VIS, a series of evolutions have been performed concerning the database and transactional throughput capacity of VIS and BMS. While there was a slow evolution in Pre-Production, TST has been only improved as part of the ongoing 'Reinforcement of the VIS/BMS testing infrastructure' project (Annual Work Programme 2016) 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 NTE platform. This will allow the contractor to perform an improved qualification of future functional and technical evolutions based on a more representative environment than before. However, this project is considered only as 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 repetitive cycles due to the number of issues usually discovered as part of the testing process. As per lessons learnt, a significant portion of the issues is due to the inability of the contractor to carry out their qualification campaigns on the eu-LISA-like testing environment, with which they would have the opportunity to detect and fix performance or configuration issues at an early stage.

PREVIOUS YEARS' ACHIEVEMENTS

2018: new test environment C (TEC), replacing TST, was created on the shared virtual NTE platform, together with a simulated BCU passive environment. The TEC

performance is up to a 40% production environment level. The MWO contractor can remotely access the environment which allows performance or configuration issues to be detected and fixed at an early stage of the qualification campaigns; the old, physical TST was decommissioned.

2019: the existing BMS 24 million noise database will be made available for use on TEC for BMS qualifications.

VALUE ADDED

By delivering an environment similar in terms of size, configuration and background database as Pre-Production, eu-LISA expects a significant enhancement in the delivered quality, reduced internal qualification time and thus a faster lead time onto the market should there be 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

- Unavailable data centre space in case new racks are required.
- Unavailability of internal resources causing delays for various project phases.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Improve the product qualification process by providing the MWO contractor with a similar testing environment as Pre-Production	TST environment with the same database and transactional throughput capacity as PPE	A new test environment with similar capacity as Pre-Production	Cost, schedule and scope	Green	Projects dashboard	TTU

2.2.1.8. SIS – Central system backup service move to Virtual Tape Libraries

MAIN ACTIONS OR TASKS

SIS – the central system backup service move to Virtual Tape Libraries Project will integrate the corresponding backup and restore procedures with CSI's Infrastructure as a Service (IaaS) for a Common Shared Backup Infrastructure. This will allow CSI's Oracle Recovery Appliance to be used and the three currently installed Tape Libraries in both CU and BCU to be decommissioned, releasing a valuable data centre footprint of 3 m2 that will be used for future ISS and other projects.

VALUE ADDED

- Contribution to the elimination of 'silos' between eu-LISA's Systems;
- 700 % reduction of backup & restore time (24.2 Tb/h vs 184 Tb/h);
- Data storage in less backup space;
- Introduction of modern technologies 'deduplicating anywhere' via physical or virtual appliances;

- Reduction of data centre footprint.

MAIN CHALLENGES

Timely delivery of CSI Standards documentation and Virtual Tape Libraries Systems.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Contribution to Common Shared Services across eu-LISA by providing faster data and restore processes	Implementation of SIS Backup & Restore procedures through CSI's IaaS Model	Project outcome is the cornerstone for virtualisation and common shared infrastructure services. This is a fundamental contribution to the elimination of the 'silo approach' and releasing a more efficient and effective operational management	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.9. SIS Pre-Production Environment (PPE) move from In the Mountain (ITM) to Out of the Mountain (OTM)

MAIN ACTIONS OR TASKS

This activity includes:

- An SIS PPE move from an ITM to OTM project, which will fully separate the PRD from the PPE at BCU premises;
- The project will design and deliver a distinct PPE and relocate all relevant systems to BCU OTM premises;
- Additionally, it will decommission any non-required equipment located at BCU ITM premises, releasing a valuable data centre footprint that will be used for future ISS and other projects;
- The security assessment will be performed in the context of the change management process.

VALUE ADDED

- Distinct SIS, PRD and PPE at BCU premises;
- BCU ITM will host only eu-LISA's PRD systems;

- BCU OTM will host eu-LISA's non-PRD systems;
- No more shared infrastructure between SIS PRD and PPE systems.

MAIN CHALLENGES

- BCU PPE downtime for two weeks;
- BCU OTM not sufficient to provide Data Centre footprint and network support for SIS PPE systems.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Alignment with eu-LISA's decision to retain only production systems at BCU ITM premises	Movement of SIS PPE from ITM to OTM to Sankt Johann im Pongau - Salzburg (BCU) premises	Project outcome is the separation and movement of SIS PPE systems from ITM to OTM at BCU Premises. This will release a valuable Data Centre footprint that can be used for PRD expansion. It will additionally provide enhanced security in eu-LISA systems	Cost, schedule and scope	Green	Projects dashboard	TTU

2.2.1.10. Core SIS generic interconnection module/interface⁴⁴ to allow SIS connections to other systems and implementation of ETIAS inter-connection

MAIN ACTIONS OR TASKS

In the scope of this project, the central SIS will be extended with a solution that will allow messages to be exchanged with other systems. In the first phase, the central SIS will be extended with a generic interconnection module/interface and the Agency will manage and supervise the following stages of the project: request the activity to the SIS MWO contractor, design, build, implementation, integration, testing, deployment and final system acceptance.

In the second phase, the inter-connection module/interface will be customised to exchange messages with ETIAS; the activity will include:

⁴⁴ The implementation of this interconnection module/interface will consider the corresponding IAs within the implementation of ETIAS and will also take into consideration interoperability aspects.

- Requesting the activity from the SIS MWO contractor, considering the previously prepared impact assessment information;
- Reviewing the SIS ICD to reflect the structure of messages/transactions sent from ETIAS and the replies sent back;
- Cooperation with ETIAS and SIS teams to coordinate project implementation and planning alignment as per legal basis requirements;
- Configuration of interconnection module/interface (interconnectivity) between SIS and ETIAS;
- Fine-tuning of SIS Central System alphanumeric search capacity aspects to comply with the required volume of searches;
- Corresponding testing before final deployment to production;
- Deployment to production, project closure activities and final system acceptance.

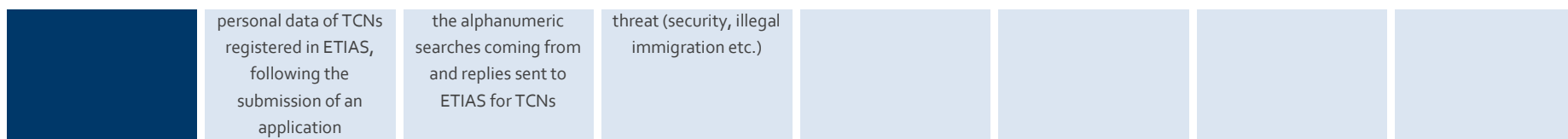
VALUE ADDED

- Future costs of inter-connecting SIS central system with other systems limited;
- Easier resource management;
- Operational interconnection between Central SIS and ETIAS in accordance with the requirements.

MAIN CHALLENGES

- Limited space in the data centre may influence the architecture of the solution;
- Limited availability of eu-LISA resources may lead to increased external support;
- ICD definitions of the internal and external systems may not be ready;
- Legal basis may influence interconnection possibilities;
- Volume of future exchanged messages is not precisely known.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	<p>This activity aims to make it possible for the SIS central system to interconnect with other internal or external systems (e.g. ETIAS, VIS)</p> <p>To update the SIS central system with ETIAS legal requirements by enabling alphanumeric searches of the</p>	<p>An interconnection module will set up an enterprise service bus solution, which allows data exchange with internal or external systems.</p> <p>SIS updated to comply with ETIAS legal base requirements: the SIS Central System is connected to ETIAS and is able to handle</p>	<p>Operational SIS central system platform/interface for interconnection to other systems in place</p> <p>SIS is in line with ETIAS legal provisions and permits, through automated searches, an assessment of whether the entry of the applicant into the Union could pose a</p>	Cost, schedule and scope	Green	Projects dashboard	PSU



2.2.1.11. Eurodac compliance with CSI/CSS services

MAIN ACTIONS OR TASKS

This activity includes:

- Continuous alignment of Eurodac with CSI/CSS services, upon their readiness and inclusion in the CSS catalogue;
- Alignment will include (as per CSS evolving catalogue) the use of harmonised: network services, monitoring services, operating system services, security services, data management services, location and directory services, system and network management services;
- The project will include management of the interaction of the Eurodac contractor with the CSS contractor(s), creation and management of contractual interfaces through operational level agreements, technical evolutions and updates of Eurodac (factory acceptance test, PPE, test, and production environments), testing and evaluation, project management, reporting and follow-up.

VALUE ADDED

- Reduction of the TCO associated with current silo implementation;
- Harmonisation of operational management activities and better use of acquired knowledge and resources;
- Better data centre planning and reduction of infrastructure footprint.

MAIN CHALLENGES

- A delay in the central CSI/CSS implementation project and services in the relevant catalogue not being available at the right time to allow proper planning;
- Availability of resources that might impact the proper planning and implementation of activities required for this project;
- Data Centre space limitations may impact the CSI/CSS implementation, delaying the relevant activities foreseen for Eurodac compliance;
- Technical constraints of the Eurodac architecture may create compliance difficulties with certain common services.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To align with the Common Shared Infrastructure (CSI) & Common Shared Services through the	Eurodac is using the available Common Shared Infrastructure (CSI) and Common Shared Services (CSS).	The Central Eurodac system complies with the CSI requirements and takes advantage of the offered CSS,	Cost, schedule and scope	Green	Projects dashboard	PSU

	use of harmonised software and infrastructure, centrally designed at a eu-LISA level	Indicative outputs (dependent on CSS-CSI readiness): use of storage services, monitoring tools and services, configuration management services, containers, etc.	allowing harmonisation across applications, the creation of synergies and facilitation of operational management, economies of scale, reduction of TCO				
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2.2.1.12. Amendments of the VIS regulation (preparation for implementation)

MAIN ACTIONS OR TASKS

This activity includes modified CS-VIS and NS-VIS in line with the amended VIS legal base⁴⁵.

VALUE ADDED

The system will be ready to be upgraded as required by the amended VIS legal base.

MAIN CHALLENGES

Delays in adoption of the legal base.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Draft specifications, procure, design, test, integrate necessary changes to the VIS in order to have the new VIS functionalities in place	Modified CS-VIS and NS-VIS in line with the amended VIS legal base	Modified CS-VIS and NS-VIS perform as required by the amended VIS legal base	Cost, schedule and scope	Green	Projects dashboard	PSU

⁴⁵ More details will be available after the adoption of the amendments to the VIS legal base

2.2.1.13. *Implementation of SIS AFIS Phase 2 (continuation from 2019)*

MAIN ACTIONS OR TASKS

This activity includes:

- Conducting internal and MS integration tests;
- Coordinating implementation of national systems and central systems;
- Regular communication and follow-up with Member States and other stakeholders.

PREVIOUS YEARS' ACHIEVEMENTS

- Validating the new fingerprint requirements stemming from the new SIS legal framework together with Member States and the Commission;
- Updating the specifications of the SIS AFIS system;
- Improving the architecture of the AFIS system delivered in Phase 1, to cope with the new requirements.

VALUE ADDED

The first line border checks will be enabled with AFIS Phase 2. The latent fingerprints functionality will also be enabled for unknown wanted persons.

MAIN CHALLENGES

- Close coordination with all the stakeholders will be necessary at every stage of this project;
- Member States will have to reach the given ICD implementation milestones at the set time to enable testing operations, as this is a major step in delivering the project;
- Member States will need to be ready for the target delivery date of the project;
- Hardware/software evolution and consistency issues will have to be dealt with on an individual basis if they arise. These unknown issues could lead to additional delay.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To provide a better response time on the 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 AFIS	This project will provide additional biometric capabilities for the Member States	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.14. Implementation of ABIS for SIS (face recognition)

MAIN ACTIONS OR TASKS

This activity includes:

- Validating the new requirements related to facial recognition (from the SIS Recast) together with the Member States and the Commission;
- Updating the specifications of the SIS AFIS system;
- Improving the architecture of the AFIS system delivered in Phase 1 to cope with the new requirements;
- Conducting internal and Member State integration test campaigns;
- Coordinating implementation of the national and central systems;
- Regular communication and follow-up with Member States and other stakeholders.

VALUE ADDED

Member States will be able to use photographs and facial images to identify a person at standard border crossing points.

MAIN CHALLENGES

- Close coordination of all the stakeholders will be needed at every stage of this project;
- Member States will have to reach the given ICD implementation milestones at the set time to enable testing operations, as this is a major step in delivering the project;
- Member States will need to be ready for the target delivery date of the project;
- Hardware/software evolution and consistency issues will have to be dealt with on an individual basis if they occur. These unknown issues could lead to additional delay.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Provide additional biometric functions as per the new SIS legal framework and cope with new requirements coming from the Member States	This project will provide new dactylographic capabilities for storing and searching in SIS. Enhancement of the functionalities already set up in Phase 2 of the SIS AFIS	This project will provide additional biometric capabilities for Member States (e.g. latent print search and storage).	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.15. Continuation of data centre (DC) reorganisation activities

MAIN ACTIONS OR TASKS

This activity includes the implementation of:

- A standard racking solution for all existing and new CBS;
- A cable tray, pre-cablings and containment standardisation;
- Adequate power supply and cooling solution implementation.

VALUE ADDED

- Coping with existing and new DCs and infrastructure requirements;
- Reducing costs via standardisation.

MAIN CHALLENGES

Data Centres' current capacity unable to host new systems.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Reorganise the data centres in order to meet new capacity management requirements (capacity, power, cooling)	Data centres reorganised (racks, compute and power)	DCs will meet the new requirements in terms of high density to achieve bigger hosting capacity and cope with the business needs	Cost, schedule and scope	Green	Projects dashboard	IMU

2.2.1.16. Integration of the Single Integrated Monitoring solution with the event management process, covering all the systems in operation

MAIN ACTIONS OR TASKS

This activity consists of a three-phase approach:

1. Agreement of all eu-LISA contractors to contribute to the standardised event management – in 2020.

It will include a study with the following aims:

- To reach an agreement with all the eu-LISA contractors that they will contribute to this process definition;

- To receive the existing list with all the unique alarms from the contractors, with their respective attributes – AS-IS situation;
 - The lists are to be analysed by eu-LISA experts with the assistance of the contractors;
 - To draft a proposal, valid for all the systems, containing the L1 and L2 support alert types, group and alert attributes that are needed by eu-LISA – TO-BE situation.
2. Definition and implementation of eu-LISA Event management policy – planned for 2020-2021:
 - To define the event management policy, addressing the outcome from point 3 below;
 - To define an action plan for the policy implementation.
 3. Integration of the single monitoring solution with the event management process – for 2021-2022, adding all the new systems.

MAIN CHALLENGES

- The timeline may not be met, due to a possible delay in the event management implementation;
- Constraints with security;
- Procurement takes substantially longer than expected.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Significantly improving monitoring for all core business systems, taking the benefits from the already implemented single monitoring solution as well as from the ITSM event management process established in 2020	Based on a standardised event monitoring process across the systems to structure the alarms received significantly better, with the mandatory necessary attributes	Based on an event management process across the systems and the improved quality of the alarm generation, the necessary integration with a single monitoring solution will substantially enhance monitoring efficiency and effectiveness	Increased satisfaction of eu-LISA Level 1 and Level 2 support; Minimising the potential risk of omission for critical alerts;	Service desk satisfaction above 90% Critical alerts followed at 95%	Monitoring tools and incident management tool; Event generations according to the event management process	SOU

Operational management and evolution of the communication infrastructure

2.2.1.17. Unified wide area network perimeter – study and design (continuation from 2019)

MAIN ACTIONS OR TASKS

The project will consist of several phases:

- Execution of the study (2019-2020) – gathering requirements, identification of the most appropriate solution and outlining the high-level architecture;
- Design (2020-2021);
- Integration of an advanced network statistics solution and implementation of network analytics (2020-2021).

PREVIOUS YEARS' ACHIEVEMENTS

Delivery of the study report following the implementation of the activity in 2019.

VALUE ADDED

Identify and design ways to achieve:

- Detection and prevention of attacks that other security tools (i.e. firewalls) cannot provide, reducing the overall risk facing the business systems;
- Reducing the amount of suspicious network traffic reaching other security controls (i.e. 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;
- Reduction in cost of the switch-over/-back functionality in the TESTA-ng contract;
- Increased visibility to the Member States' local/national interface and backup of local/national interface availability;
- Limitation of the 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, the need for high availability, upcoming systems etc.;
- Complex contractual situations (involvement of the several different contractors);
- Availability of specific resources (testing environments, human resources).

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Identify and demonstrate how to improve core business systems' connection to communication infrastructure, with the focus particularly on security, scalability, flexibility, availability and accommodating new business requirements	Present Unified WAN perimeter design describing a standardised secured platform for the connection of core business systems to communication infrastructure	Core business systems and Member States receive a more reliable communication infrastructure service and related communication systems, allowing faster and easier integration of the new core business systems	- Signed contract for the design - Presence of the design documentation draft	All deliverables presented in line with the project schedule	Project documentation	IMU

2.2.1.18. Move of central systems WAN connections

MAIN ACTIONS OR TASKS

The project consists of several tasks:

- Engineering work in order to create two physically separated entry points in the telecommunication room of the data centre;
- Installation of new physical lines (copper and fibre) by the telecommunication operator and putting the lines into operation after testing;
- Migrating existing connections (TESTA-ng SIS/VIS/Eurodac, EASO, Frontex, common shared services, internet contractor) to the new physically separated lines.

VALUE ADDED

- Resilience of the network connections improved by better physical separation of the network connections;
- Space released in the datacentre by merging equipment currently spread over several racks.

MAIN CHALLENGES

Finding a contract vehicle to fulfil the objective.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services	Move the WAN termination points in CU datacentre to the	WAN termination points implemented through the new	Improvement of data centre capacity and increased physical	SLA related to the network contract (like TESTA-ng)	Network performance indicator report shows a secure, stable	Reports on the performance of the systems and SLA	IMU

to stakeholders as per mandate	new communication rooms at CU	technical rooms in CU datacentre	resilience of the network		connection after implementation		
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2.2.1.19. ETIAS - interconnection with Interpol and Frontex

MAIN ACTIONS OR TASKS

The project consists of several phases:

- Procurement;
- Design;
- Testing and acceptance in preproduction;
- Enabling connection in production.

VALUE ADDED

Secure, reliable communication infrastructure for the ETIAS application.

MAIN CHALLENGES

Finding a contract vehicle to provide this connection.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Provide secure and reliable communication infrastructure between ETIAS central system and Interpol/Frontex	Connection between ETIAS central system and Interpol/Frontex implemented as per legal basis	Operational connection between ETIAS central system and Interpol/Frontex to allow Interpol/Frontex to use ETIAS central system as per legal basis	Test report for the connection Network Performance Indicator for the connection	Test report shows tests have been performed successfully Network performance indicator report shows a secure, stable connection	Project Documentation	IMU

2.2.1.20. Transition to new TESTA network

MAIN ACTIONS OR TASKS

This activity includes:

- Preparation of the migration plan taking into account business needs, a Framework Contract template, state of play of the existing communication infrastructure and other relevant elements;

- Preparation of the technical specifications for the new generation of communication infrastructure for the large-scale IT systems managed by eu-LISA, in line with relevant Regulations;
- Negotiation and arrangement of the specific contracts based on the prepared technical specifications;
- Signature of the specific contract(s) for the design and implementation of the core communication infrastructure services needed by the systems under the Agency’s management, for the migration of one communication infrastructure in line with the migration plan and the initial period of operation of this network;
- Initial activities for the implementation of the new generation of communication infrastructure and the transition into this infrastructure (site surveys, testing plans preparations, planning, etc.).

VALUE ADDED

The activity will allow the implementation and start of the migration of the large-scale IT systems in the upcoming period from TESTA-ng to the new TESTA/pan-European network.

MAIN CHALLENGES

- Negotiations of the specific contracts may take longer, especially if there is a change of scope compared to the scope defined in the framework contract;
- The activity depends on the successful completion of DIGIT's tendering procedure for the future pan-European network;
- Furthermore, the scope and schedule of the transition depends on the result of the negotiated procedure for the extension of the TESTA-ng II services.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	To allow implementation and migration of the core business systems under eu-LISA's responsibility to the new TESTA network to commence	Signed specific contracts for the implementation of the new TESTA networks for the core business systems under eu-LISA's responsibility and the migration of the core business systems to these networks	Secure and reliable IP communication between national systems and central systems is available; secure and reliable IP communication between central systems sites is possible	Cost, schedule and scope	Green	Projects dashboard	IMU

2.2.1.21. ETIAS WAN implementation

MAIN ACTIONS OR TASKS

The project consists of several phases:

- Procurement;
- Design;
- A pilot with several Member States to test and validate the design and the implementation of ETIAS communication infrastructure;
- Full deployment of the communication infrastructure.

The communication infrastructure of the VIS and EES will be reused to accommodate the ETIAS application. During the design phase special attention will be paid to logically separating the data from the EES and VIS application. Furthermore, the WAN connection needs to be compliant with security and data protection requirements. Full deployment will consist of updating the communication infrastructure for all Member States and agencies, such as Europol, requiring a connection to the ETIAS central system. This also includes installation of new connection points (TAPs) for those agencies that are currently not connected to the VIS or EES system, in line with the ETIAS implementation plan.

VALUE ADDED

Secure, reliable communication infrastructure for the ETIAS application.

MAIN CHALLENGES

- Complex contractual situations with current VIS communication infrastructure provider (TESTA-ng);
- Complex technical setup and high number of stakeholders involved due to the need to reuse software and hardware elements of the VIS/EES communication infrastructure (to the extent technically feasible).
- Delay due to non-responsiveness of Member States;
- Delay due to special requests by Member States (i.e. lack of space to host network, special racks need to be ordered etc.).

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Provide reliable and cost-effective solutions and services to stakeholders as per mandate	Provide secure and reliable communication infrastructure as per ETIAS application requirements	ETIAS communication infrastructure implemented that is connected to the NUI in the Member States and the central system on eu-LISA premises	Operational ETIAS communication infrastructure in place allowing Member States to connect and use ETIAS central system	Test report for the communication infrastructure Network Performance Indicator report for ETIAS communication infrastructure	Test report shows tests have been performed successfully Network performance indicator report shows a secure, stable network	Project documentation	IMU

Development and implementation of new systems

2.2.1.22. Dublin Automated System (continuation from 2019)

MAIN ACTIONS OR TASKS

This activity includes:

- Creation of the ICD for the new system in cooperation with the Member States;
- Cooperation with the AG and the Member States through expert groups and the project management forum to coordinate implementation and planning alignment of central and national projects;
- Development of the new system subject to the adoption of the legal framework under negotiation and the outcomes of the study done by the European Commission;
- Configuration of the infrastructure needed;
- Testing and qualification of the new system in PPE;
- Performing operational tests with the Member States and system acceptance testing before deployment to production;
- Providing Final System Acceptance;
- Evaluating the functioning of the system as per legal basis in order to propose improvements.

PREVIOUS YEARS' ACHIEVEMENTS

Depending on the timeline of approval of the legal proposal.

VALUE ADDED

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

MAIN CHALLENGES

- Delays in the procurement process (previous years) may bring delays to overall implementation;
- Complexity and difficulty of aligning planning between central-system and the national-system projects;
- Possible conflicting views on implementation (central system and national system) may introduce delays;
- Data centre space availability issues may seriously impact the project (new environments/racks will be needed);
- Resource unavailability may negatively impact the project;
- Duplication of effort with Eurodac developments, despite the inter-related goals (dependent on final provisions of the legal basis to be adopted).

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to the stakeholders	To align with the requirements set in the Dublin IV proposal	Finalisation of the implementation of a new Dublin Automated System to support the implementation of the new Dublin IV proposal	The new system in place and in line with the new legal provisions, allowing the Member States to implement European asylum policies	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.23. *EES implementation (continuation from 2019)*

MAIN ACTIONS OR TASKS

The Agency is responsible for implementing all the activities related to the development, implementation and operational management of the EES, and for connecting Member State border infrastructures to the EES. This will be done via the National Uniform Interface (NUI), which is identical across all Member States as it is based on common technical specifications. eu-LISA will not only develop this interface but also coordinate the integration of the NUI by the Member States at national level. In addition, eu-LISA is to host the other external interface of EES – the Web Service (WS) – which is to provide services to third-country nationals wishing to verify their authorised length of stay. The WS will also function as a gateway for carriers to check whether a third-country national with a short-term visa, issued for one or two entries, has already reached the number of entries authorised by the visa.

The implementation of the new system will include the setup of:

- A new EES central system;
- A biometric information system;
- A national uniform interface;
- A communication infrastructure;
- A web service for travellers and carriers;
- A central data repository for reporting and statistics.
- Additionally, technical evolutions on VIS and SIS could be part of the implementation package. This will include the core EES and VIS generic interconnection module/interface to allow EES and VIS connections to other systems and implementation of the ETIAS connection.

As part of the EES BMS (sBMS) procurement, eu-LISA will gradually start to provide the new user software toolkit (USK), which will have to be integrated into the EES national systems and will replace the variety of non-standardised toolkits currently used in the scope of VIS and SIS.

PREVIOUS YEARS' ACHIEVEMENTS

In 2019, the Agency kicked off the framework contract for the development of the EES. The Agency plans to sign the framework contract for the EES BMS (including sBMS) development by the end of 2019.

VALUE ADDED

The aim of the project is to implement core business systems in accordance with the EES Regulation

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

- 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

Interdependencies with other activities servicing the EES implementation, such as the existence of Common Shared Infrastructure (CSI). Proper collaboration and cooperation with the Member States, as implementation on a national level must also be synchronised. Possible impact on the implementation of other initiatives or business-as-usual activities due to internal resources constraints.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to the stakeholders	Design and implementation of the central system, communication infrastructure, national uniform infrastructure, interoperability with other central systems	EES central system becomes operative within the legal deadline	Supporting the Member States in achieving smarter and more secure border management	Cost, schedule and scope	Green	Projects dashboard	PPU

2.2.1.24. Implementation of the European Travel Information and Authorisation System (ETIAS) (continuation from 2019)

MAIN ACTIONS OR TASKS

This activity includes:

- 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;

- Definition and implementation of ETIAS security policy;
- Setup of the technical infrastructure;
- Preparation of the testing strategy, including the overall testing plan and scheduling of the qualification activities.

PREVIOUS YEARS’ ACHIEVEMENTS

The relevant legislation was adopted in September 2018 and implementing acts will have been approved in 2019. The technical specifications of the system will be drafted in 2019 and procurement will start in the same year. New staff will also be recruited and the impact assessment will also be initiated.

VALUE ADDED

The Agency will fulfil its legal obligations and will provide the Member States, Frontex and Europol with a system that works in accordance with their business needs.

MAIN CHALLENGES

- Member States may request to phase the development of EES and ETIAS, instead of adopting 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 year planned for entry into operation is considered as very challenging;
- The amount of human resources planned for involvement in the project could be insufficient.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to the stakeholders	Design, implementation and qualification of the central system, communication infrastructure. Adaptation of the security environment and measures to comply with new types of services. Interoperability with other central systems. Operation preparations.	ETIAS becomes operative within the expected deadline	ETIAS is developed according to the relevant regulation and provides the Member States with a new system aimed at assessing risks prior to visa-exempt third country nationals entering the Schengen area	Cost, schedule and scope	Green	Projects dashboard	PSU

2.2.1.25. ECRIS-TCN implementation (continuation from 2019)

MAIN ACTIONS OR TASKS

Regulation (EU) 2019/816 establishing a centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (ECRIS-TCN) to supplement the European Criminal Records Information System entered into force on 11 June 2019. According to this regulation, eu-LISA is responsible for the development and operational management of ECRIS-TCN.

This activity includes:

- Preparation, publication and management of the call for tender for the development and operations start-up of ECRIS-TCN;
- Definition of end-to-end high-level and detailed designs;
- Definition and implementation of ECRIS-TCN security policy;
- Setup of the technical infrastructure;
- Technical and functional implementation;
- End-to-end functional, technical and security qualification;
- Definition, setup and testing of the business processes and procedures with stakeholders (Member States, Eurojust, Europol, European Public Prosecutor's Office);

PREVIOUS YEARS' ACHIEVEMENTS

Preparation of procurement and recruitment of the project team and supporting the preparation of the implementing and delegated acts.


VALUE ADDED

This centralised system will allow Member State 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 send requests for conviction information only to these Member States.

MAIN CHALLENGES

An external contractor will be responsible for the development of the central system, which will be carried out in synchronisation with the implementation of national systems under eu-LISA's coordination. A critical factor in the successful – in terms of quality and time – delivery will be the establishment of a project management forum with national project managers chaired by eu-LISA, in order to anticipate and mitigate risks, promptly manage common issues and foster communication between projects.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to the stakeholders	Design and implementation of the central system, communication infrastructure, national	ECRIS-TCN central system becomes operative	Supporting the Member States in achieving smarter and more secure border management	Cost, schedule and scope	Green	Projects dashboard	PSU



uniform infrastructure,
interoperability with
other central systems

2.2.1.26. Implementation of the regulations on establishing a framework for interoperability between EU information systems

MAIN ACTIONS OR TASKS

This activity includes:

- Improved interoperability of eu-LISA's systems;
- Continuous improvement of service offer and capabilities to the Member States and JHA agencies;
- Timely, effective and efficient evolution of systems under management;
- Interoperability programme management (2019-2023);
- Implementation of impact assessment(s) to evaluate the impact of interoperability on the existing systems and the systems under development, taking into account the outcomes of the study on DWH and the impact assessment stemming from the implementation of ETIAS (2020);
- Development and implementation of the Common Repository of Reporting and Statistics - CRRS (started in 2020 and finished in 2021);
- Development and implementation of the European Search Portal – ESP (2020-2023);
- Development and implementation of the Common Identity Repository – CIR (2020-2022);
- Development and implementation of the Shared BMS – sBMS (2021-2023);
- Development and implementation of the MID (2021-2023);
- Introducing and expanding the use of universal message format across all systems (UMF) (2020-2022);
- Continuation and/or maintenance of the common repository for reporting and statistics;
- Continuation and/or maintenance of automated data quality control mechanisms (2018-2022);
- Extending capacity of SIS in terms of interoperability scope (2021-2022);
- Cooperation with the JHA agencies on the development and use of the interoperability architecture and on the Common Repository of Reporting and Statistics, in line with the legal instruments.

VALUE ADDED

- Increased usability, enhanced access control and new capabilities for the systems;
- Improved TCO of the systems;
- Improved system search and identity management capabilities;
- Improved capacity management, performance and scalability;

- Reduced Total Cost of Ownership of the systems, better services for stakeholders.

MAIN CHALLENGES

- Late adoption of the legislation;
- Multiple concurrent projects competing for resources (EES, ECRIS-TCN, etc.);
- Interdependent timelines between different projects (Interoperability and EES, ETIAS, etc.).

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously increase the added value of systems, data and technology to the stakeholders	Specific objectives: design, deliver, implement and operationally manage high-quality technical components that enable interoperability between central large-scale IT systems, thereby fulfilling all the business needs mentioned above	<p>Development and implementation of Common Repository of Reporting and Statistics – CRRS (started in 2019 and finished in 2020)</p> <p>Development and implementation of the European Search Portal – ESP (2020-2021);</p> <p>Development and implementation of the Common Identity Repository – CIR (2020-2022);</p> <p>Development and implementation of the Shared BMS – sBMS (2021-2023);</p> <p>Development and implementation of the MID (2020 (possibly) 2021-2023)</p>	ESP, CIR, sBMS, MID and CRRS will be developed and fully implemented as per plan, together with all interfaces for existing systems. Interfaces for future systems will also be taken into consideration.	<p>Implementation projects for the interoperability components are executed according to pre-defined scope, budget and timeline</p> <p>All existing eu-LISA systems are connected to the interoperability components</p>	<p>Full adherence to agreed planning documentation</p> <p>100% system connectivity</p>	<p>Project planning and execution documentation</p> <p>System documentation</p>	PSU

2.2.1.27. *Central repository for reporting and statistics maintenance and alignment with the legal requirements for interoperability*

MAIN ACTIONS OR TASKS

The activity consists of two parts:

1. Central repository for reporting and statistics maintenance;
2. Central repository for reporting and statistics evolution to meet the requirements of the interoperability legal base. This includes:
 - Assessment of the necessary evolution;
 - Drafting technical requirements and contracting;
 - Implementation of the evolutions;
 - Testing and acceptance;
 - Release into operation;
 - Training, coaching and support to stakeholders.

VALUE ADDED

The central repository for reporting and statistics will be aligned with the requirements of the interoperability legal base.

MAIN CHALLENGES

- Insufficient resources;
- Legal base not in place.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Move from ex-post data analysis (statistics) to analytics (if allowed by the legal base)	Maintaining automation of existing statistical and data quality reporting. Maintaining existing data quality reporting and development of the new requirements stemming from interoperability. The central repository	The central repository for reporting and statistics performs as expected	eu-LISA management and its stakeholders will receive timely and sufficient statistical and data quality information to allow and ease decision making.	Cost, schedule and scope	Green	Projects dashboard	PSU



Security and business continuity

2.2.1.28. Combined disaster recovery exercise for SIS, VIS and Eurodac

MAIN ACTIONS OR TASKS

This activity includes:

- eu-LISA and participating Member States perform the preparation, execution and evaluation of the exercise;
- As part of the preparations, 4 or 5 meetings with all the participants will be organised; the exercise environment will be prepared at both eu-LISA and Member State levels;
- ENISA will be involved by supporting the preparations and providing the web-based platform for exercise management and the execution of the injects;
- For the execution phase, all the participants will run the exercise scenario under the coordination of eu-LISA;
- The information gathered during the preparation and execution phase will be assessed by all the participants and included in a report (together with specific recommended actions) presented to the AGs for their opinion and to the MB for adoption.

VALUE ADDED

Ensuring there is the possibility to test the specific security, business continuity, disaster recovery, incident management processes, procedures and controls in place, and at the same time having the opportunity to identify any existent gaps and lessons learnt.

MAIN CHALLENGES

- Lack of enough participants in the exercise due to lack of resources, priorities or other reasons may lower the relevance of the exercise findings;
- Lack of enough resources allocated by eu-LISA and other participants during preparations and execution of the exercise may not bring the added value expected from running such an exercise;
- The different expectations of participants might make it difficult to come to a common understanding and agreement regarding the exercise activities, decisions and actions.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Strengthen information security capabilities related to the systems entrusted to the Agency	Business continuity, disaster recovery, security, incident management and escalation processes and procedures are tested by eu-LISA and the Member States. Recommended actions related to the specific findings are presented for adoption	Implement a Business Continuity and Disaster Recovery exercise for the VIS and the other core business systems under eu-LISA's operational management	Ensure compliance with business continuity, disaster recovery and incident management in case of an incident disrupting eu-LISA's core business systems	Cost, schedule and scope	Green	Projects dashboard	SEC

2.2.1.29. *Implementation of the Common Shared Security Infrastructure Phase 4: design and implementation of multi-factor authentication for the EUWS network*

MAIN ACTIONS OR TASKS

The scope of this project is to implement a strong authentication mechanism on the EUWS network through the use of PKI-based tokens. The main tasks include developing the design of the solution, defining the bill of materials, developing the high-level and detailed design of the solution, procuring the hardware and software and implementation services and implementing and integrating strong authentication mechanisms and tokens. Once the implementation is complete, the solution will undergo testing from a security and functional perspective and training will be provided to the system administrators and users.

VALUE ADDED

- The Agency will meet Commission guidelines on authentication by using a more secure method or two-factor authentication to ensure appropriate access to more sensitive or critical information or systems (above LIMITED BASIC);
- Strong access control assurance to the EUWS;
- Reduced impact from a compromise of user password credentials.

MAIN CHALLENGES

- Lack of availability of indirect resources to support the implementation of the solution;
- Lack of capacity by the contractor to deliver the resources for implementation.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Strengthen information security capabilities related to the systems entrusted to the Agency	Implement strong authentication in the EUWS to effectively prevent the use of automated data-processing systems by unauthorised persons, who will be authorised using individual and unique user identities	A study, high-level and detailed design, procurement of hardware and software and implementation services, strong authentication controls implemented	The Agency will meet Commission guidelines on authentication by using a more secure method or two-factor authentication to ensure appropriate access to more sensitive or critical information or systems (above LIMITED BASIC)	% of functional and non-functional requirements fulfilled versus planned	75%	Acceptance report	SEC

2.2.2. Activities within the scope of Strategic Goal 2

Operational management and evolutions of the existing systems

2.2.2.1. Integration of Asset Management with Configuration Management (continuation from 2019)

MAIN ACTIONS OR TASKS

This activity includes:

- Data harmonisation between these two processes;
- Identifying reliable data sources for the processes as a basis for 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;
- Extends 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 the organisation.

MAIN CHALLENGES

- 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;
- Possible security constraints.

Strategic objective	Objective of the activity	Output of the activity	Outcome of activity/activities	Performance indicator	Target	Sources of verification	Unit
Continuously align business objectives with capabilities, processes and resource allocation to best serve stakeholders' needs	Establish processes that optimise the cost and utilisation of each asset; efficient total cost of ownership	A system allowing a complete overview of configuration items with technical features, financial, licensing, procurement and request management; data harmonisation between these two processes	A single, centralised and relational repository for the contractual, financial, operational status of the IT components and assets	<ol style="list-style-type: none"> 1. Percentage of assets and configuration items covered by the integration model 2. Number of incidents reported where the underlying cause of the incident is the result of inaccurate configuration management information 3. Number of unauthorised changes detected automatically 4. Number of unauthorised changes identified as a result of audits performed using automatic configuration update software 	<ol style="list-style-type: none"> 1. 80% 2. < 5 3. <5 4. < 5 	Project documentation The Universal Configuration Management Database	SOU

2.2.3. Activities within the scope of Strategic Goal 3

Not applicable. No operational projects for Strategic Goal 3 are foreseen in 2020

2.2.4. Activities within the scope of Strategic Goal 4

Not applicable. No operational projects for Strategic Goal 4 are foreseen in 2020

2.3. Horizontal activities

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

2.3.1. Corporate governance and capability building

MAIN ACTIONS OR TASKS

This activity includes:

- Corporate planning and reporting;
- Providing governance and compliance management capabilities;
- Drafting reports on the technical functioning of the systems and aggregate statistics;
- Execution of annual research and technology monitoring roadmap for 2020 and the research and technology monitoring strategy;
- Integration of research findings into internal projects and administration of the eu-LISA library;
- Contribution as an observer to Schengen evaluations in the fields of SIS/SIRENE and Common Visa Policy (including VIS) and ensuring better use of SIS and VIS by Member States;
- Implementation of the training plan for the provision of training to Member States on the technical use of the IT systems managed by the Agency;
- Implementation of an enterprise quality management exercise;
- Revision of eu-LISA long-term strategy and corporate KPIs.

VALUE ADDED

- The Agency will fulfil its legal obligations for planning and reporting including reporting on the performance of the systems, and at the same time it will manage its work in a predictable and structured way and 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 its achievement of objectives. eu-LISA management and stakeholders will be able to take strategic and operational decisions based on objectively verifiable data;

- The application and monitoring of internal control standards managed by eu-LISA will contribute to facilitating good governance of the Agency;
- Supporting the execution and implementation of the requirements of the establishing Regulation related to the governance of the Agency;
- Raising awareness of eu-LISA’s stakeholders on relevant technologies, 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;
- EU Member States use systems under eu-LISA’s management and also follow best practices to support the correct implementation of the Schengen legislation in the fields of SIS/SIRENE and the Common Visa Policy;
- Member States’ technical knowledge of the systems increases, resulting in a better performance at the national level. Member States receive tailored training on the technical use of the systems;
- The overall performance of the Agency is maintained and improved;
- The Agency’s management will be provided with broader and more precise information for taking strategic and operational decisions;
- The Agency has an updated long-term strategy, corporate KPIs and multiannual programme, aligned with the MFF, including resource planning.

MAIN CHALLENGES

- Lack of available tools to fulfil some technology monitoring tasks (e.g. dedicated publication monitoring tools) and ensure that relevant library materials are available at the Agency’s different sites, mitigated where possible through the purchase of online resources;
- Availability of eu-LISA staff to provide the training, as well as of contractors to prepare and deliver specific training courses;
- Multiple parallel projects involving new system developments place excessive time demands on Member States’ experts dealing with eu-LISA systems, meaning that they have limited time to participate in relevant training courses and resulting in a gradual decrease in competences at Member-State level.

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
GCU	<ol style="list-style-type: none"> To fulfil the planning requirements of eu-LISA's establishing Regulation and the Framework Financial Regulation. To provide information to the MB on the execution of the activities, achievement of annual objectives and performance in key areas; To facilitate good governance by implementing and monitoring a framework of internal control standards at eu-LISA; To provide reporting and statistics on the technical functioning of the systems and their usage and to fulfil the relevant requirements of the establishing Regulation; To monitor research and to report regularly and at least once a year to the EP, Council, Commission and (where 	<ol style="list-style-type: none"> PD 2020-2022 adopted by eu-LISA's Management Board. PD 2021-2023 planned, drafted and submitted for discussions to the AGs and MB. Implementation and annual reports adopted by the MB; The internal control register is updated and implemented for 2020, including defined measures for ensuring good governance; Technical reports, annual statistics and list of authorities submitted to the EU institutions or published in the OJ of the EU as required by the establishing Regulation of the Agency and legal base of each system that the Agency operates; Research reports published online. Organisation of industry 	<ol style="list-style-type: none"> eu-LISA provides its stakeholders with sufficient information on the planning and execution of the tasks entrusted to the Agency and its performance, thus ensuring a high level of confidence and fulfilling the legal requirements; The Agency applies adequate elements of good governance in its compliance management practices; Fulfilment of all reporting obligations as outlined in the establishing Regulation & legal bases for systems under management; Dissemination of research reports boosts stakeholder awareness on technical matters, leading to improved collaborative possibilities; involvement of the research

	<p>relevant) EDPS on developments in research. Biannual reports are dictated in the MoU with the European Commission. To contribute to implementing the parts of the Framework Programme for Research and Innovation which relate to large-scale IT systems in the area of freedom, security and justice when the appropriate powers have been delegated by the Commission;</p> <ol style="list-style-type: none"> 5. To enhance internal knowledge of recent relevant technological developments, to make research material easily available and to thereby ensure that the best available technology, subject to cost-benefit analysis, is used; 6. To ensure sound implementation of the Schengen acquis in the field of SIS/SIRENE and the Common Visa Policy by the evaluated Member States and ensure better use of the SIS and VIS; 7. To ensure that Member States' knowledge of the technical functioning and use of the systems is enhanced and applied; 8. To support and improve the high quality of eu-LISA's services and operations; 9. To analyse, revise and update the Agency's long-term strategy and corporate KPIs. 	<p>events and content at the eu-LISA annual conference 2020. Successful EU-funded research projects;</p> <ol style="list-style-type: none"> 5. Short focus reports on research and novel technologies for management, input for projects based on research monitoring, including pilot projects, testing activities, support activities under Articles 14/15 of the eu-LISA regulation as part of the role of research in the conceptual Technology Support Office, a well-stocked library with comprehensive, up-to-date and relevant materials is available to support internal work; 6. Participation in Schengen evaluation missions in SIS/SIRENE and the Common Visa Policy (including the VIS) areas as an observer and contribution to evaluation reports of EU Member States; 7. Fulfilling the core task of the Agency as per establishing Regulation, and providing technical training on the functioning and use of the systems to the Member States; 8. All activities related to the quality exercise implemented in accordance with the dedicated road-map for the exercise; 9. eu-LISA long term strategy implementation analysed and revised. Proposals for amendments presented, including multiannual implementation programme/plan. Updated set of corporate KPIs. 	<p>monitoring function in appropriate project work improves the outcome of such work. The Agency's profile as a centre of knowledge is raised, and its image boosted;</p> <ol style="list-style-type: none"> 5. eu-LISA's large-scale IT systems are effectively maintained and developed. Advance planning for systems evolution is undertaken with full knowledge of trends and likely future possibilities, enabling more efficiency; 6. EU Member States apply the Schengen legislation correctly in the fields of SIS/SIRENE and the Common Visa Policy and ensure better use of the SIS and VIS; 7. A responsive and tailored system training programme is in place that meets the needs of stakeholders fully; 8. The Corporate Governance Model, consisting of risk management, internal control management and quality management, is implemented and operated at the Agency according to its definitions and requirements; 9. The Agency has an up-to-date long term strategy, KPIs and a multiannual programme/plan to better serve its stakeholders.
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2.3.2. *Executive support and stakeholder relations*

MAIN ACTIONS OR TASKS

This activity includes:

- Timely administrative support for the Management Board;
- Timely administrative support for the Advisory Groups;
- Implementation of the External Communication and Information Action Plan to provide transparency, visibility and awareness;
- Implementation of eu-LISA's Internal Communication Action Plan to foster employee awareness and engagement;
- Stakeholder management, policy coordination, analysis and monitoring of developments in the JHA area;
- Following up policy developments and legislative proposals directly linked to eu-LISA's mandate;

VALUE ADDED

- eu-LISA stakeholders will receive timely and sufficient information on the Agency's execution of activities and achievement of objectives. eu-LISA management

and stakeholders will be able to take strategic and operational decisions based on objectively-verifiable data;

- Internal communication actions facilitate the strengthening of the corporate culture of the Agency as a modern and well-functioning organisation;
- The management of the Agency will be provided with broader and more precise information for taking strategic and operational decisions.

MAIN CHALLENGES

- Insufficient communication between operations and general coordination functions to drive topic prioritisation, rendered more likely through the division across units;
- Time-sensitive information does not reach target audiences in emergencies and crises due to the lack of a full-time webmaster/online information assistant for business continuity in the area of online communication;
- Lack of mandated staff at the Agency’s operational site to provide business continuity, perform internal reputation-management tasks and react rapidly in case of emergencies or crises;
- Limitations on incident management during a potential crisis, requiring the implementation of a crisis communication strategy targeting internal stakeholders, which constitutes one of the core elements for crisis management;

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
ESU	<ol style="list-style-type: none"> 1. To effectively support the operations of the Management Board; 2. To effectively support the operations of the Advisory Groups 3. To provide updated information, increase awareness and rapidly give objective, reliable and easily understandable information to the public and stakeholders; 4. To improve intra-agency information- and knowledge sharing and contribute to employee engagement; 5. To ensure high-quality stakeholder relations (Member States, EU institutions and bodies, industry representatives, academia) and comprehensive internal policy analysis and coordination along with appropriate outreach to stakeholders. 	<ol style="list-style-type: none"> 1. Administrative and logistics support for the Management Board is maintained at a high level; 2. Administrative and logistics support for the Advisory Groups is maintained at a high level; 3. 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; 4. All the activities in the annual Internal Communication Action Plan are fully implemented; 5. Implementation of Working Arrangements and MoUs with EU institutions and agencies; stakeholder engagement through events and joint activities; enabling, developing and maintaining working relations and regular exchange of information with stakeholders. 	<ol style="list-style-type: none"> 1. The Management Board is sufficiently supported in order to perform its duties effectively; 2. The Advisory Groups are sufficiently supported in order to perform their duties effectively; 3. Better knowledge and improved awareness of the primary stakeholders on the role and tasks of the Agency in providing added value for the benefit of citizens; 4. Staff at all the Agency’s sites are informed and engaged at corporate level, enabling them to make informed decisions regarding their professional tasks and have access to internal communication tools for information sharing and feedback; 5. Systematic and well-functioning cooperation with eu-LISA’s stakeholders; thorough policy analysis, awareness raising on particular subjects, trends and priorities; internal coordination and appropriate outreach to respective stakeholders.

2.3.3. *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, asset and financial management;
- Maintaining the accounts of the Agency;
- Internal control, procedures and audits related to finances and procurement;
- Supporting the Activity-Based Management model.

VALUE ADDED

- The Agency's operations are maintained and facilitated by ensuring acquisitions are in accordance with sound financial management;
- The smooth execution of the Agency's operational and corporate objectives is supported;
- 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;
- The Agency meets the statutory requirements of an EU body;
- Performance is objectively monitored by achieving a more accurate budget forecast and transparency in the budget process.

MAIN CHALLENGES

- Planning and scheduling;
- Legal risks (court cases);
- Quality of planning and internal control is inadequate;
- Expanding business results in growing complexity with increasing number of financial transactions to control and report on;
- Failure in internal controls may result in unjustified expenditure, fraud, denial of a discharge by the budgetary authority;
- The evolved ABB model does not allow complete or accurate costing by operational/mandated activity.

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
FPU / AO	<ol style="list-style-type: none"> 1. To support the Agency's core and corporate activities by providing procurement and acquisition in a timely manner; 2. To ensure sound financial management and capabilities for precise budget planning, monitoring and execution in 	<ol style="list-style-type: none"> 1. High-quality and timely procurement services to support the Agency are provided throughout the year; 2. High-quality, internal budgetary, asset and financial services are provided, allowing operational and corporate 	<ol style="list-style-type: none"> 1. The Agency's acquisition needs are addressed in compliance with statutory obligations and within the budgetary framework; 2. High-quality and timely budgetary, asset and financial

	<p>support of the Agency's operations;</p> <ol style="list-style-type: none"> 3. To ensure proper presentation of the Agency's financial position, safeguarding the Agency's assets, timely recovery of due amounts; 4. To ensure that activities in the financial and procurement management area are compliant with the applicable standards, and are documented, revised and updated; 5. 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. 	<p>objectives to be achieved;</p> <ol style="list-style-type: none"> 3. Provisional & final individual and consolidated annual accounts; 4. Procedures and controls are developed and revised; internal and external audits in the financial and procurement area are performed; 5. Better capabilities to align activities with objectives, streamline costs and improve business practices to have greater transparency in the budget process. 	<p>services are provided throughout the year. Processes are continuously revised to improve efficiency and effectiveness, wherever possible through dematerialisation;</p> <ol style="list-style-type: none"> 3. Presenting the annual accounts so that they represent the financial position of the Agency fairly and transparently, facilitating the discharge procedure; 4. The Agency gains a comprehensive set of procedures and checks that are fit for the purpose of promoting sound financial management and internal control; 5. The Agency is capable of measuring its performance in the execution of its main business processes precisely. The project is an evolution of the ABB initial model designed in 2018, capable of better integration with project management data.
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2.3.4. *Human resources management*

MAIN ACTIONS OR TASKS

This activity includes:

- Standard (business-as-usual) HR activities regarding organisational structure, processes and practices performed in compliance with the relevant rules and decisions;
- Training to eu-LISA staff related to operations (technical training to staff) and knowledge management;
- Further development of the learning culture, developing HR's role in business partnership and strengthening staff development and retention;
- Consolidation of the Agency following change, growth and transformation;
- Continuation of the further development and implementation of the Competency Framework to ensure the 'right people are in the right function'.

VALUE ADDED

- eu-LISA will improve the effectiveness of the HRM processes and the organisational structure of an ever-changing environment;
- eu-LISA will fulfil its legal and financial obligations towards staff, and will comply with the Staff Regulations and CEOS, the Implementing Rules and other rules governing human resources management at eu-LISA;
- eu-LISA's operational staff will be able to perform better and offer better services to the Agency's stakeholders;
- Continually increased added value of systems, data and technology to stakeholders;
- Being a trusted advisor and technical enabler to stakeholders on matters within the Agency's mandate;
- A positive image is developed and maintained towards internal and external stakeholders;

- eu-LISA continues to be an attractive employer, retains and continuously develops staff;
- Newcomers and stakeholders are satisfied with the growth of the organisation and can adapt to the changes linked to the growth;
- Increased transparency of internal mobility channels.

MAIN CHALLENGES

- Ensuring that organisational structure planning is in line with the legal proposals for the new tasks whilst the legal base has still not been adopted;
- Ensuring availability of staff in the HRU with the necessary knowledge and knowledge transfer in case of HR staff turnover;
- Ensuring timely reporting in the various areas of HR and accuracy of records, limiting the number of human errors to a minimum in case of staff turnover;
- Insufficient human resources and expertise available;
- Increasing number of newcomers to go through technical on-boarding programme;
- Existing staff members not passing the certification process;
- Ownership of actions;
- Limited involvement of the Agency’s Management;
- Implementation of this activity and its success depends on the timely implementation of the activities planned in 2019;
- Formal adoption of the Competency Framework without fully integrating it into processes and few value-added benefits.

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
HRU	<ol style="list-style-type: none"> 1. Plan the Agency's and the HRU's resources in order to achieve the Agency's strategic goals and objectives and to comply with the requirements of the Staff Regulations and CEOs; 2. Respond to technical training needs; 3. Grow as a hub of knowledge and maintain operational excellence; 4. Identify new solutions to optimise business processes; ensure that knowledge is captured; 5. Organise activities after analysis; 6. Evaluate the impact on business; 7. HR responds to business needs; 8. Improve HR services; 9. More efficient administration and reporting; 10. Improve performance through the physical environment; 11. eu-LISA Leadership to endorse and empower learning culture by setting role model; 12. Plan and to use the resources available in the Agency and 	<ol style="list-style-type: none"> 1. Organisational structure reflecting the development of eu-LISA; granting staff entitlements, execution of payroll and other payments, contract renewal, career and talent management implemented in a timely manner; Implementing Rules adopted and/or implemented; 2. Technical courses provided to staff; 3. Training lab created; 4. Implementation of the Knowledge Management Policy; 5. Technical on-boarding; 6. Creation of certification process prior to access to core systems; 7. Organisation of study visits to Member States for staff; 8. Proposal document on HR business partnership developed; 9. Further implementation of the CAF model; 10. Further development of HR IT tools; 11. Informal learning activities further enhanced by creating office space to support a learning culture; 	<ol style="list-style-type: none"> 1. The Agency's and the HRU's organisational structure will reflect the organisational development and accommodate future growth; 2. eu-LISA will fulfil its obligations towards staff in accordance with the regulatory framework; 3. eu-LISA's staff will be able to perform better; 4. eu-LISA will be acknowledged as a hub of expertise and knowledge; 5. eu-LISA staff take a more active role in sharing their knowledge, providing constructive feedback to colleagues and discussing mistakes and achievements openly; 6. The Agency's and the HRU's organisational structure will reflect organisational developments; 7. The new staff will be integrated into the organisation; 8. Change management related to the rapid growth will be implemented; 9. Continuation of the development and implementation of the Competency Framework to ensure that the 'right

	<p>the HRU in order to achieve the strategic goals and objectives of the Agency and comply with the requirements of the Staff Regulations and CEOS;</p> <p>13. To integrate the Competency Framework into all areas of Human Resources Management.</p>	<p>12. Additional staff recruited in line with the 2020 recruitment plan;</p> <p>13. New staff data encoded in SYSPER and entitlements granting process followed up;</p> <p>14. On-boarding programme for newcomers implemented;</p> <p>15. HRU service organisation adjusted to the growing Agency;</p> <p>16. Implementation of the roadmap for Competency Framework application for recruitment, staff development and training;</p> <p>17. Development and further implementation of the leadership programme.</p>	<p>people are in the right function’.</p>
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2.3.5. *Data protection*

MAIN ACTIONS OR TASKS

This activity includes:

- Drafting the 2019 Annual Work Report and reporting the intermediate status of data protection compliance to the Management Board;
- Increasing data protection awareness;
- Consolidating the concepts imposed by Regulation 2018/1725 repealing Regulation 45/2001;
- Performing the Annual Data Protection survey.

VALUE ADDED

- DP information is provided to the relevant stakeholders;
- High level of staff commitment towards DP is expected;
- Compliance with the DP legal framework applicable to eu-LISA;
- Data protection compliance is improved and possible risky practices on data protection issues identified.

MAIN CHALLENGES

- Compliance with the EU DPR Regulation runs on the principle of accountability, so non-compliance with those principles could lead to major liability for the Agency, which could be fined directly by the EDPS;
- Development of the new system generates more work for the DPO, which may lead to reprioritisation of some of the DPO’s tasks.

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
DPO	<ol style="list-style-type: none"> 1. The public, the MB and the EDPS are informed of the level of compliance as regards DP; 2. Continuous updating of staff's knowledge of the applicable DP principles; 3. Alignment and enforcement of the new Regulation on processing personal data applicable to the Community institutions and bodies; 4. Audit on data protection compliance of a specific unit of eu-LISA. 	<ol style="list-style-type: none"> 1. Annual Work Report 2019 submitted for approval to eu-LISA's MB and published. Intermediate status report on DP presented to the MB; 2. Staff's understanding of data protection concepts and rights increases/is maintained; 3. Implementation of eu-LISA's Management Board new decision on the Implementing rules relating to the processing of personal data at eu-LISA; 4. Audit report with outcomes/findings and recommendations presented to the Executive Director of eu-LISA. 	<ol style="list-style-type: none"> 1. The MB is informed of the level of compliance as regards data protection; 2. Staff complies with data protection requirements; 3. Ensure compliance of internal rules with the applicable legal framework; 4. Recommendations on data protection compliance to be implemented to increase the Agency's data protection compliance if necessary.

2.3.6. Corporate services

MAIN ACTIONS OR TASKS

Corporate services include: end-user computing, maintenance of the corporate IT data centre, maintenance of the corporate IT network, corporate IT application development and maintenance, mobile phones, landline and IP telephony, facility management, logistics and warehouse services, office supply, mission management and document management.

They specifically include:

- Maintenance and evolution of corporate network architecture;
- Maintenance activities for all equipment and assets on the operational site;
- Evolutive System Architecture for Corporate IT;
- Corporate applications evolution;
- Conferencing capacity improvement and streaming capabilities;
- Facility operations for full and effective use of Agency premises in Tallinn, Strasbourg and Brussels;
- Implementation of logistics and supply services at the Agency;
- Mission portfolio and utilisation of European Commission's mission tool;
- Share best practices and services with other Agencies in the area of ICT;
- Document / Records / Archives management;

- Providing legal advice to eu-LISA⁴⁶.

VALUE ADDED

- Better network platform integration, enhanced business continuity and disaster recovery, better security, better network services, better Corporate IT services;
- Adequate facilities to support operations;
- Redundant email, directory and identity management services along with a collaboration platform and adjacent peripherals;
- Increased safety and resiliency in backup and restore processes;
- Web and VC conferencing services improved and streaming introduced at Agency level;
- Longer sustainable well-being of staff with sufficient working conditions in accordance with relevant standards and policies in the field of facilities and health & safety;
- Smooth transition of IT and non-IT business services in relation to missions;
- Alignment and synergies of agencies explored, leading efforts and Agency mandate reinforcement;
- More efficient sourcing;
- Corporate IT services SLA improvement;
- Mitigation of risks of non-compliance and court cases.

MAIN CHALLENGES

- Security vs usability. The more secure the layout, the more the burdens on the network flows;
- Lack of resources;
- Long timeframes required for sourcing and procuring services that ensure timely implementation;
- Preserving in-house knowledge with only one staff member in CSU, currently only partially fulfilling the role and split between first and second-line support.
- Performing effective business continuity without staff presence on both sites for standby support and physical intervention for prompt incident handling;
- Dependency on external process owners and contractors/service providers and human resources;
- No major challenges are foreseen at this point for 2020.

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
CSU	<ol style="list-style-type: none"> 1. To enhance the Agency's network architecture for corporate use to provide flexibility, better availability and reliability as well as platform integration; 2. Preparedness and continuity of all facilities; 3. Geographical redundancy and evolution of existing system 	<ol style="list-style-type: none"> 1. Implementation of Corporate Network Architecture improvements; 2. The Agency's facilities operate as required; 3. Implementation of Corporate System and Storage Architecture improvements; 	<ol style="list-style-type: none"> 1. Provide network services in the field of Corporate IT; 2. The Agency is able to use its facilities fully; 3. Provide services in the field of corporate IT management; 4. Enhanced capabilities of the Agency's SharePoint and Project Server platforms;

⁴⁶ The Legal Officer is in the Corporate Services Department in the Agency's organisational structure.

	<p>platforms including email, databases, identity management, directory services, virtualisation, storage and backup, service desk, monitoring, ticketing and better platform integration;</p> <ol style="list-style-type: none"> 4. To enhance the capabilities of the Agency's corporate applications, improve collaboration capabilities and workflows; 5. To maintain and enhance the web conferencing function of the Agency to a capacity of more than 80 simultaneous users and provide an architecture to provide flexibility, better availability, reliability and integration with third-party vendors; 6. To provide services in the field of facility management at HQ; 7. To provide services in the field of logistics and supply management in Tallinn, Strasbourg and Brussels; 8. Enhancement of effectiveness of the mission portfolio including the establishment of a mission tool; 9. Promote inter-agency collaboration through knowledge and experience sharing and exchange of good practices; 10. Achieve common service management functions as well as service integration interfaces with other providers involved in various contracts; 11. Provide services in the field of facility management at the liaison office; 12. Support eu-LISA's compliance with applicable regulations (under CSD). 	<ol style="list-style-type: none"> 4. Intranet/Extranet migration to 2016 version, a synergy effect with Project Server and project related spaces including Business Intelligence; 5. Evolution of the Agency's video conferencing and web conferencing capacity and streaming capabilities. Replacement of the WebEx solution with a more advanced Meeting Server and providing streaming functionalities to go along with it; 6. Necessary undertakings to preserve effective services to HQ as regards facilities management; 7. All Agency's sites preserve high-quality logistics and supply services; 8. Organisational operations for enhancing the effectiveness of the mission portfolio; 9. Build and apply a set of guiding principles to achieve optimum delivery of IT services; 10. Build and apply a set of guiding principles to achieve optimum bundling of multiple towers of service; 11. Necessary undertakings to preserve effective services to liaison office as regards facilities management; 12. Legal advice and opinions to internal and external stakeholders and representation of eu-LISA in EU or national courts if needed (under CSD). 	<ol style="list-style-type: none"> 5. Enhancement of the Agency's video conferencing and web conferencing capacity, better integration with third-party vendors and streaming capabilities, thereby allowing eu-LISA staff to have enhanced communication capabilities; 6. Improved working conditions for staff and ability to effectively use HQ and the facilities in all the Agency's locations; 7. The mission tool is implemented and widely used by staff; 8. Verifying that critical requirements are collected and commented on; 9. Verifying that critical requirements are collected from the recipient enterprise and therefore merit measurement as service levels; 10. Adequate working and operating conditions as well as the implementation of technical, logistical and operational best practices
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2.3.7. *Extension of the operational premises in Strasbourg to host current and future projects*

MAIN ACTIONS OR TASKS

After a comprehensive discussion in November 2017, the eu-LISA Management Board acknowledged the need for a further extension of the office space and the need for an expansion of the data centre at the technical site in Strasbourg⁴⁷.

⁴⁷

MB Decision 2017-185 point 10

The drivers for this further extension are as follows:

- The extended mandate of eu-LISA with regard to the new systems that will be entrusted to the Agency and new services that will be made available to the Member States needs more data centre capacity than exists today or could have been foreseen in 2015 when the first building project was designed;
- The existing systems managed by the Agency are already undergoing – or will undergo – substantial evolutions.
- The significant increase in staff (both internal and external) related to the new systems and tasks assigned to the Agency. A high-level estimation leads to the conclusion that eu-LISA should ensure up to 443 – 463 workstations at the technical site in Strasbourg.

The activity includes an analysis of the as-is situation in comparison to eu-LISA's target new configuration and capacity, following its current business requirements and updated extended mandate. Therefore, the project will include the design and implementation of the necessary changes/construction efforts to extend the present facilities.

The Agency introduced budget for this project in the MFF proposal communicated to DG HOME on 5 April 2018. Based on the experience gained in the first extension project, the Agency would require a number of temporary posts in the establishment plan to ensure efficient project management and to meet French legal obligations on the contracting authority.

Considering the mandatory administrative deadlines and regulatory framework, and applying a critical path approach to this project's foreseen timeline, the main dates to earmark are those indicated below. The materialisation of the project would become relevant for the 2021 budget, as described in the provisional timeline below.

Key steps:

Milestone	Status ⁴⁸
Adoption of business case by eu-LISA Management Board	Done
Preliminary information to Budgetary Authority	Done
Start of the functional requirements design	Pending
Signature of functional requirements contract	Pending
Functional requirements concluded	Pending
Impact Assessment(s) for Active-Active adopted by Management Board	Pending
Technical design concluded	Pending
Tender for execution of works launched	Pending
Execution contract for works awarded	Pending
Management Board approval of building project	Pending
Management Board request to Budgetary Authority	Pending
Contract signature approved by Budgetary Authority	Pending
Signature of execution contract	Pending
Start of execution	Pending
Final execution of building	Pending
Acceptance of building	Pending

VALUE ADDED

The Agency will have sufficient space to accommodate and host all the systems and operations under its mandate. Working conditions for staff in the areas concerned will

⁴⁸ As of 25.10.2019

respect all working environment standards, supporting the staff's well-being and performance to better support MS in their requirements vis-à-vis the Agency. The highest security standards for the data centres will be met and the active-active data centre solution implemented⁴⁹.

MAIN CHALLENGES

Changes in technology might mean that the new data centre is outdated by the time construction is completed. A local energy company might be unable to provide the electrical power needed for the extension. The extension cost is an estimation based on the information currently available. The actual cost depends on the detailed design, market conditions at the time of the tender, etc. There is also some uncertainty on the drawing up of needs, in relation to new developments and the future adoption of new legal instruments.

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
CSU	The objective of the project is to extend the additional Strasbourg site (as completed in 2018), in order to provide adequate working and operational conditions.	As a main output, the Agency will have the necessary working space to accommodate and manage the systems entrusted to it following its new, broader mandate and also to provide adequate working conditions for its staff. In addition, the project active-active data centre architecture with synchronous replication will help eu-LISA seamlessly migrate workloads between data centres and allow various business risks to be mitigated, ensuring business continuity and requiring high resiliency.	Adequate working and operational conditions as well as implementation of technical, logistical and operational best practices.

2.3.8. Horizontal security activities

MAIN ACTIONS OR TASKS

This activity includes:

- Operating, planning and developing the Business Continuity/Disaster Recovery/Emergency Response parts of the Security and Continuity Management Strategy;
- Operating, planning and developing the protective elements of the Security and Continuity Management Strategy;
- Security and Business Continuity exercise for Corporate IT services;
- Refurbishment of the perimeter's physical security controls for the site in Strasbourg;
- Delivering Cybersecurity Operations & Assurance for the Corporate Infrastructure.

VALUE ADDED

- An adequate level of business continuity is implemented at Agency level to acquire the needed resilience for performing the main tasks and responsibilities;
- An adequate level of protective security is implemented at Agency level to support the activities and the processes performed by eu-LISA;

⁴⁹ Subject of Impact assessments to be done in 2019.

- The possibility of testing the specific security, business continuity, disaster recovery, incident management processes, procedures and controls in place at eu-LISA for its corporate IT services is ensured, with the opportunity to identify any existing gaps and lessons learnt;
- Overall enhanced physical security of the external perimeters of the Strasbourg site is ensured in line with the outcomes of the risk assessment;
- Easier and faster access for eu-LISA staff, contractors and visitors on site;
- Security risks managed to an acceptable level;
- Compliance with legal and business requirements;
- Increased trust of stakeholders;
- Increasing the reputation of the Agency as a trustworthy and secure custodian of sensitive EU internal security and border management information.

MAIN CHALLENGES

- The commitment of external stakeholders in supporting the implementation of BCMS and specific protective security controls as needed;
- Insufficient resources allocated by eu-LISA during the preparations and the execution of the exercise may not bring the expected added value of running such an exercise;
- The different expectations of participants might make it difficult to come to a common understanding and agreement regarding the activities, decisions and actions of the exercise;
- The activity should take into consideration future plans for the Strasbourg site extension;
- Lack of priority with regard to other tasks;
- Increase in complexity of the activity outstripping resource capacity;
- Corporate infrastructure’s lack of capacity to support security management activities.

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
SEC	<ol style="list-style-type: none"> 1. Compliance with legislation and the ISO 22300 family standards; 2. Compliance with legislation and the ISO 27000 family standards; 3. Implement a business continuity and disaster recovery exercise for eu-LISA's corporate IT infrastructure; 4. Enhance the protection of the old perimeter fence in Strasbourg (from the old site) by having a similar resilience to the one at the new premises; to ensure effective security for both the main and the emergency vehicle access gates; 5. Delivering Cybersecurity Operations & Assurance according to COM 2017/46. 	<ol style="list-style-type: none"> 1. Business continuity policies and plans for the systems and the Agency are updated; 2. Specific business continuity/disaster recovery/emergency response controls are implemented as needed; 3. Agency adopts appropriate security measures based on the risk assessment, EU legislation and best practices; 4. Ensure compliance with business continuity, disaster recovery and incident management in case an incident disrupts eu-LISA's corporate IT services; 5. Ensure the fulfilment of specific business and legal requirements for physical security at eu-LISA's Strasbourg site in line with the current risk assessment; 6. Security policy; security risk management; security plans; 	<ol style="list-style-type: none"> 1. The Agency improves resilience in its operational management; 2. The Agency ensures the appropriate level of safety and security for the people and assets on its premises; 3. The business continuity, disaster recovery, security, incident management and escalation processes and procedures are tested by eu-LISA for its corporate IT services. Recommended actions related to the specific findings are presented for adoption; 4. Refurbishment of the old external perimeter fence of the site and reinforced protection of both the main and the emergency vehicle access gates; 5. Assurance that information security risks will be managed

security awareness and training, security architecture, security assessments and audits; software licences; security testing, security monitoring, security incident management, security guidance.

to an acceptable level.

2.3.9. *Enterprise Project Management Office (EPMO) activities*

MAIN ACTIONS OR TASKS

This activity includes:

- Official appraisal based on a CMMI (Capability Maturity Model Integration) model;
- Project portfolio management capability;
- Corporate risk management;
- Developing and deploying processes and training programmes, evaluating projects, performing project quality assurance reviews, reviewing processes and reporting on project performance.

VALUE ADDED

- Provide the Agency's management with an objective insight into the actual progress made towards achieving maturity objectives in the area of project management;
- Minimising the overall risk associated with managing complex projects undertaken by the Agency;
- Defining a clear path towards achieving the status of ICT Centre of Excellence;
- Enabling the Agency to fully implement the strategy execution framework by integrating project, programme and portfolio management capabilities;
- Improved portfolio prioritisation and resource allocation across projects, programmes and portfolios;
- Streamlining the corporate risk management process;
- Integrating the corporate risk management process with project/programme/portfolio risk management processes;
- Facilitating the implementation of the corporate risk management process through proper IT tools;
- Better alignment between the strategy and project execution environment;
- Improved KPIs related to managing projects and programmes.

MAIN CHALLENGES

- The Agency's awareness of the CMMI approach;
- A certified CMMI Institute partner should be hired to conduct the review;
- Ongoing process improvement initiatives affecting projects and service areas will require planning to be harmonised;
- The maturity of the Agency as regards portfolio management;
- Performing an internal readiness check of project and programme management processes before starting the project;

- Dependencies on ongoing process improvement initiatives in the project management area;
- The maturity of the Agency as regards organisational risk management;
- The updated process model will be aligned with the overall risk management process at the project and programme level;
- Insufficient resources within the EPMO.

Unit	Objectives of the activity	Output of the activity	Outcomes of activity/activities
EPMO	<ol style="list-style-type: none"> 1. Provide an objective, proven and credible ranking of the Agency's achievements in organisational project management maturity by applying the most commonly used process improvement model (CMMI) and appraisal method (SCAMPI - Structured CMMI Appraisal Method for Process Improvement); 2. The project is meant to establish a comprehensive and coherent approach in establishing an effective capability for project portfolio management; 3. The project will produce the full package required to update and improve corporate risk management capabilities; 4. Fulfil the EPMO mission. 	<ol style="list-style-type: none"> 1. Appraisal report of SCAMPI Class A (official appraisal); 2. Incrementally develop and deploy a project and portfolio management capability; 3. Study to identify the requirements for defining/updating the corporate risk management capability, including the corporate risk management process model and requirements for the risk management tool; 4. EPMO deliverables, as agreed in the EPMO charter. 	<ol style="list-style-type: none"> 1. Agency officially rated against the CMMI model; 2. The major outcome of this project comprises two components: a process model for portfolio management and an IT roadmap for implementing the PPM (project portfolio management) process model; 3. A process model for corporate risk management; IT roadmap for implementing the corporate risk management process model; 4. Improved alignment between the Agency's strategy and its project execution through integrating the main processes: project management, programme management and portfolio management.

2.3.10. *Implementation of the annual internal audit plan*

MAIN ACTIONS OR TASKS

This activity includes:

- Monitoring internal controls;
- Reviewing the effectiveness of business process controls;
- Performing self-assessments;
- Identifying and reporting control deficiencies;
- Ensuring that assurance providers are independent and qualified;
- Planning, scope and execution of assurance initiatives;
- Identifying external compliance requirements;
- Optimising response to external requirements;
- Confirming external compliance.

VALUE ADDED

- Transparency for key stakeholders on the adequacy of the system of internal controls and thus providing trust in operations, confidence in the achievement of Agency objectives and an adequate understanding of residual risk;
- Ensuring that the Agency is compliant with all applicable external requirements.

MAIN CHALLENGES

- Availability of high-quality providers of outsourced auditing services.

Unit	Objectives of the activity	Output of the activity	Outcomes from activity/activities
IAC	<ol style="list-style-type: none"> 1. Processes, resources and information meet the Agency's internal control system requirements; 2. Provide independent assurance that the internal control system is operational and effective; 3. Identify and adequately address all external compliance requirements. 	<ol style="list-style-type: none"> 1. Internal controls are monitored; 2. Business process controls are reviewed for effectiveness; 3. Self-assessment is performed; 4. Control deficiencies are identified and reported; 5. Assurance initiatives are planned, scoped and executed. 	<ol style="list-style-type: none"> 1. Obtaining transparency for key stakeholders on the adequacy and effectiveness of the internal control system. 2. Providing trust in operations and confidence in the achievement of Agency objectives and an understanding of residual risk. 3. Ensuring that all external compliance requirements are identified and adequately addressed.

It is to be noted that, in line with eu-LISA's Financial Regulation, the annual internal audit plan follows a separate adoption procedure by the Management Board based on an opinion issued by its Audit, Compliance and Finance Committee (ACFC).

Annex I: Resource allocation per activity 2020-2022 ⁵⁰⁵¹

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
Activities subject to adoption of new legal basis	2.2.1.5	Eurodac Recast implementation (continuation from 2019)	5.05	Test Engineer Project Manager Application Administrator Change Manager Technical Release Coordinator Applications Administrator Assistant IT Specialist Application Manager	PM ⁵³	The Eurodac Recast legal proposal includes a multiannual financial plan for the years 2017-2020. As the project was supposed to start in 2017 (when the recast proposal was to be approved), it was assumed that the project would have been concluded by 2020, so no commitment appropriations were foreseen for 2020. We maintain the budget here as PM in order to be consistent with the Multiannual Plan. However, the commitment appropriations corresponding to the previous years should normally be transferred.			Pending	Pending
Activities subject to adoption of new legal basis	2.2.1.6	Eurodac Recast - implementation of face recognition in Eurodac based on study outcomes	0.6	Change Manager IT Specialist (Eurodac)	PM	There are no actual budget estimates. The estimates will be established by the study on face recognition to be implemented, as foreseen in the legal framework. I noted that the Eurodac Recast proposal does not include any budgetary			Pending	Pending

⁵⁰ Administration and support activities in this table are more detailed than in the previous section in order to provide a better view of resources. The FTEs shown are only the FTEs that the Agency currently has or is expected to receive by 2020 following the adoption of the new eu-LISA Regulation. 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 contain no FTEs, which means that these will be covered only by the additional FTEs.

⁵¹ Some activities have a budget of zero, which is either because the activity will use only human resources and external support or because the commitment appropriations are done in the previous years. The budget figures cover only Title 3 expenditure.

⁵² According to the agreed planning process and methodology used in planning human resources for 2020-2022, there was a distinction between 'direct' and 'indirect' FTEs. As a result, the total number of FTEs in Annex I is lower than the total number of Agency staff. Annex I presents the 'direct' FTEs only. Therefore, a difference between the number of resources referred to in the main document (see point 3.2.2 *Human Resources*) and in Annex III and Annex I is inevitable. The Agency is considering a change of methodology in this regard for the planning cycle 2022-2024.

⁵³ Pour Memoire

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						estimates for face recognition for this reason.				
Activities subject to adoption of new legal basis	2.2.1.22	Dublin Automated System (continuation from 2019)	0.95	IT Specialist Test Engineer Change Manager	735 000	In the context of the Dublin recast proposal a new automated system is expected to be established. The system will aim to facilitate: - the registration and monitoring of Member State's respective shares of applications for international protection, and - the application/follow-up of the allocation mechanism. The proposal provides for the new system being developed and operationally managed by eu-LISA. The budget is estimated for the implementation of the new system, based on the initial assessment done by eu-LISA and as included in the legal proposal.			Pending	Pending
Administration and support expenditure	Error! Reference source not found.	Planning and reporting	1.9	Strategy Planning Officer Planning Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.1	Providing governance and compliance management capabilities	0.5	Corporate Governance Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.2	Timely administrative support for the Management Board	1	Management Board Assistant Management Board Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.6	Providing legal advice to eu-LISA	1.9	Legal Officer Junior Legal	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.1	Drafting technical reports and aggregate statistics	1.3	Administrator for Reporting and Statistics Assistant for Statistics and Research	0	N/A			01/01/2020	31/12/2020

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
Administration and support expenditure	2.3.2	Execution of the Procurement and Acquisition Plan	7.55	Procurement Officer Procurement Officer Financial Assistant Procurement Assistant (rev. Regulation) Procurement/Contractual Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.2	Implementation of the External Communication and Information Action Plan to provide for transparency, visibility and awareness	1.7	Communications and Information Assistant Communication and Information Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.2	Implementation of eu-LISA Internal Communication Action Plan to provide for employee awareness and engagement	1.2	Communication and Information Officer Internal communication and information assistant	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.2	Stakeholder management, policy coordination, analysis and monitoring of developments in the JHA area	5.9	Liaison Officer Research and Development Officer Expert in policy/training Policy Officer Policy Officer Administrator for Reporting and Statistics	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.1	Contribution as an observer to Schengen evaluations in the fields of SIS/SIRENE and the Common Visa Policy (including the VIS) and ensuring better use of the SIS and VIS by Member States	0.05	Administrator for Reporting and Statistics	50 000	The budget will be used to pay for the participation of eu-LISA staff members in Schengen evaluations missions in the fields of SIS/SIRENE and the Common Visa Policy.			01/01/2020	31/12/2020
Administration and support expenditure	2.3.3	Timely delivery of services related to budgetary, asset and financial management	8.65	Asset Management Assistant Financial Officer Budget Officer / Head of Sector Financial Assistant Financial Assistant / Payroll Assets and Inventory Officer Finance and Budget Officer Financial junior assistant	0	N/A			01/01/2020	31/12/2020

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
Administration and support expenditure	2.3.4	Standard (business-as-usual) HR activities regarding organisational structure, processes and practices performed in compliance with the relevant rules and decisions.	4.5	HR Assistant HR Officer HR Officer Staff Development Officer Training Assistant	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.2	Maintaining the accounts of the Agency	0.9	Accounting Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.22.3.3	Internal control, procedures and audits related to finances and procurement	0.2	Budget Officer/ Head of Sector Procurement Officer/ Head of Sector	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.6	Maintenance and evolution of corporate network architecture	1	Network Engineer	0	N/A			03/01/2020	15/12/2020
Administration and support expenditure	2.3.5	Drafting the Annual Work Report 2019 and reporting on the intermediate status on DP compliance to the MB	0.2	Data Protection Officer	0	N/A			05/01/2020	30/10/2020
Administration and support expenditure	2.3.5	Increasing data protection awareness	0.4	Data Protection Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.5	Consolidation of the concepts imposed by the new Regulation repealing Regulation 45/2001	0.35	Data Protection Officer	0	N/A			01/01/2020	30/12/2020
Administration and support expenditure	2.3.5	Perform the Annual Data Protection survey	0.05	Data Protection Officer	0	N/A			01/04/2020	15/11/2020
Administration and support expenditure	2.3.6	Maintenance activities for all equipment and assets on the operational site	0		0	N/A			01/01/2020	01/01/2020
Administration and support expenditure	2.3.7	Extension of the operational premises in Strasbourg to host current and future projects	1.7	Facility Officer Administrative Assistant IT Infrastructure Officer	0 ⁵⁴	N/A			01/05/2017	01/01/2024
Administration and support expenditure	2.3.6	Evolutive system architecture for corporate IT	2.5	IT Infrastructure Officer IT Assistant System Engineer	0	N/A			03/01/2020	23/12/2020

⁵⁴ The budget planned for the activity for the years 2020, 2021 and 2022 is EUR 2 529 200, EUR 11 283 400 and EUR 15 615 100 respectively.

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
Administration and support expenditure	2.3.6	Corporate applications evolution	1	Business Analyst	0	N/A			03/01/2020	23/12/2020
Administration and support expenditure	2.3.6	Conferencing capacity improvement and streaming capabilities	1	Senior Network Engineer	0	N/A			01/02/2020	01/12/2020
Administration and support expenditure	2.3.6	Facility operations for full and effective usage of the HQ building in Tallinn	1.3	Facility Officer Administrative Assistant IT Assistant	0	N/A			03/01/2020	23/12/2020
Administration and support expenditure	2.3.6	Implementation of logistics and supply services in the Agency	0		0	N/A			03/01/2020	23/12/2020
Administration and support expenditure	2.3.6	Mission portfolio and creation of an internal mission tool	1	Administrative Assistant for Missions	0	N/A			03/01/2020	23/12/2020
Administration and support expenditure	2.3.2	Supporting the Activity-Based Management model	0.6	Budget Officer / Head of Sector Finance and Budget Officer Financial Assistant	0	N/A			01/01/2020	31/12/2021
Administration and support expenditure	2.3.1	Implementation of an enterprise quality management exercise	0.45	Corporate Governance Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.9	Official appraisal based on CMMI model	0.6	EPMO Officer	90 000	Consultant expertise to assess the Agency's maturity level in Project Management/ Service Management.			05/01/2020	28/12/2021
Administration and support expenditure	2.3.9	Project portfolio management capability	0.2	EPMO Officer	0	N/A			20/01/2020	20/07/2020
Administration and support expenditure	2.3.9	Corporate risk management evolutions	0.2	EPMO Officer	0	N/A			06/07/2020	14/12/2020
Administration and support expenditure	2.3.9	Develop and deploy processes and training programmes, evaluate projects, perform project quality assurance reviews, appraise processes, and report project performance	2	Head of EPMO sector EPMO junior officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.4	Further development of the learning culture, developing HR's role in business partnership and strengthening staff development and retention	0.55	Staff Development Officer Learning and Development Officer	0	N/A			01/01/2020	31/12/2020

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
Administration and support expenditure	2.3.6	Share best practices and services with other Agencies involved in ICT	0.5	Enterprise Architecture Officer	0	N/A			03/01/2020	15/12/2020
Administration and support expenditure	2.3.4	Consolidation of the Agency following change, growth and transformation	3.1	Recruitment and Personal Files Manager Human Resources Assistant Human Resources Officer	0	N/A			01/01/2020	31/12/2020
Administration and support expenditure	2.3.6	Facility operations for full and effective use of the liaison office in Brussels	0.25	Administrative Assistant Facility Officer	0	N/A			03/01/2020	23/12/2020
Administration and support expenditure	2.3.10	Implementation of the annual internal audit plan	2	Internal Auditor Audit Assistant	0	N/A			05/01/2020	17/12/2020
Administration and support expenditure	2.3.4	Continuation of the further development and implementation of the Competency Framework to ensure that the 'right people are in the right function'	0.8	Staff Development Officer Human Resources Officer Human Resources Assistant Learning and Development Officer HR Officer	250 000	The budget will cover the continuation and implementation of the 360-degree evaluation and leadership programme.			01/01/2020	31/12/2020
DubliNet	2.1.1.2	DubliNet maintenance	0.25	IT Specialist Application Administrator Test Engineer Technical Release Coordinator Change Manager	45 000	The budget is expected to cover corrective maintenance and provision of support to the Member States as well as urgent technical/operational changes.			01/01/2020	31/12/2020
ECRIS-TCN	2.2.1.25	ECRIS-TCN implementation (continuation from 2019)	5.1	Project manager Software quality engineer Application experts System engineer Technical release coordinator	3 766 000	The budget is in accordance with the LFS of the ECRIS-TCN regulation	3,766,000		01/09/2019	31/12/2022
EES	2.2.1.23	EES implementation (continuation from 2019)	8.7	Programme Manager Project Manager Application Administrator Test Manager Application Architect Solution Architect Database Engineer	23 605 000	The budget is in accordance with the LFS of the EES regulation			01/11/2017	01/07/2021

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
ETIAS	2.2.1.24	Implementation of ETIAS (continuation from 2019)	32 ⁵⁵	Application Manager / Head of Sector Customer Relationship Officer	55 800 000	The budget is in accordance with the LFS of the ETIAS Regulations	18,554,000	18,554,000	09/10/2018	31/12/2022
ETIAS	2.2.1.10	Core SIS generic interconnection module/interface to allow SIS connections to other systems and implementation of ETIAS inter-connection	1	IT Specialist Application Manager Test Engineer Test Manager/Test Team Coordinator	PM	The budget is needed to extend the SIS with a solution that will allow message exchange with various systems. In the first phase, a generic interconnection module will be introduced. In the second phase, the new interconnection module will be customised to exchange messages with the ETIAS system. Estimations are based on the work to be done.	PM	PM	05/01/2020	31/12/2022
ETIAS	2.2.1.21	ETIAS WAN implementation	1	Network Administrator	PM	The budget is needed to provide a secure communication infrastructure for ETIAS as per legal basis, in accordance with the ETIAS implementation project schedule. In particular, it will be used for: 1) design phase; 2) testing; 3) rollout to all the Member States and agencies.			01/01/2020	31/12/2020
ETIAS	2.2.1.19	ETIAS - Interconnection with Interpol and Frontex	0.3	Network Administrator	PM	The budget is needed to: - Provide a secure, reliable connection between the ETIAS central system and Interpol so that Interpol can use the ETIAS central system as per legal basis - Provide a secure, reliable connection between the ETIAS central system and			01/01/2020	31/12/2020

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The Commission's proposal for ETIAS envisaged 32 posts in 2020 and 42 posts in 2021. Out of this number, 5 posts are allocated to horizontal functions and 2 to security.

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						Frontex so that Frontex can use the ETIAS central system as per legal basis				
Eurodac evolutions	2.2.1.11	Eurodac compliance with CSI/CSS services	0.3	Test Engineer Change Manager	1 200 000	The budget is necessary for the migration to CSI services, which is expected to improve the efficiency of the Agency's operations, ensure harmonisation between the different applications and optimise TCO.			01/01/2020	31/03/2021
Eurodac Maintenance	2.1.1.1	Eurodac maintenance	1.8	Test Engineer Technical Release Coordinator Application Administrator IT Specialist Change Manager	5 280 000	Annual operational budget foreseen within the new Eurodac MWO to cover corrective and adaptive maintenance (with local service desk setup from the Eurodac contractor) and urgent technical /operational emergency changes. The national access point (NAP) fingerprint image transmission (FIT) standardised solution will be improved. The Eurodac security patching and documentation project will be carried out to prevent security breaches and vulnerabilities in the system.			01/01/2020	31/12/2020
General security activities	2.3.7	Operate, plan and develop the business continuity/disaster recovery/emergency response parts of security and continuity management	1.3	Security Officer Business Continuity Officer Security Officer / Team Leader	0	N/A			01/01/2020	31/12/2020
General security activities	2.3.7	Operate, plan and develop the protective elements of security and continuity management	3.3	Physical Security Expert Security Officer Security Officer / Team Leader	0	N/A			01/01/2020	31/12/2020
General security activities	2.3.7	Security and business continuity exercise for corporate IT services	0.4	Information Security Expert Business Continuity Officer Security Officer	0	N/A			01/01/2020	31/12/2020

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
General security activities	2.3.7	Refurbishment of the perimeter physical security controls for the site in Strasbourg	0.6	Security Officer Physical Security Expert	0	N/A			01/01/2020	31/12/2020
General security activities	2.3.7	Delivering Cybersecurity Operations & Assurance for the corporate infrastructure	1.6	Security Officer Information Security Expert Security Assistant Communications Security Officer Junior Security Policy Expert	0	N/A			06/01/2020	18/12/2020
Interoperability	2.2.1.26	Implementation of the Regulations on establishing a framework for interoperability between EU information systems	44 ⁵⁶		11 954 000	The budget is in accordance with the Interoperability Regulations.	45 249 000	5 880 000	01/01/2019	31/12/2023
Meetings and Missions directly related to core systems	2.3.2	Timely administrative support for the Advisory Groups	2.9	Management Board Officer Management Board Assistant MB/AG Secretariat Assistant	1 200 000	The budget will cover: 4 statutory meetings for EAG/SAG/VAG + 12 meetings EES-ETIAS AG + 12 meetings Interoperability AG + 12 meetings ECRIS-TCN AG			01/01/2020	31/12/2020
Other activities related to CBS or network	2.1.1.15	Network services delivery	3	Network Administrator	450 000	The budget is necessary to ensure that the communication infrastructure and related communication systems provide the necessary service to CBS and the Member States	500 000	500 000	01/01/2020	31/12/2020
Other activities related to CBS or Network	2.2.1.17	Unified wide area network perimeter – study and design (continuation from 2019)	1.5	Network Administrator Network Operations Officer	0	N/A			01/01/2019	31/12/2021
Other activities related to CBS or network	2.1.1.9	24/7 first-level support for operational management of the systems – eu-LISA Service Desk	17	Helpdesk Operator Service Manager	0	N/A			31/01/2020	31/12/2020
Other activities related to CBS or network	2.1.1.10	CSI maintenance	1.1	Infrastructure Manager System Administrator Data Centre Manager	4 455 000	The budget will be used for: - CSI programme management; - CSI maintenance – fixed part; - CSI maintenance for CSI	7 000 000	8 500 000	01/01/2020	31/12/2020

⁵⁶ Commission's proposal for Interoperability envisaged 45 posts in 2020. Out of 44 posts defined in the interoperability regulations LFS, 9 are subject to re-allocation and re-prioritization, and 1 post is used to enable recruitment of the Deputy Executive Director of eu-LISA.

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						infrastructure; - CSI maintenance for security projects; - CSI maintenance for network projects; Covered by the specific CBS contract. The CSI components not covered by the CBS contract are security and shared infrastructure. The budget increases every year as it onboards part of the existing systems and the new systems.				
Other activities related to CBS or network	2.1.4.2	eu-LISA ITSM framework processes run and regular reporting	1.2	Service Manager Process manager	0	N/A			01/01/2020	31/12/2022
Other activities related to CBS or network	2.1.1.16	Regular operational management of the communication infrastructure contracts (budget execution, acquisition, renewal, contract management)	0.7	Network Operations Officer Network Administrator	19 221 000	The budget will cover: - Recurring monthly costs: - SIS MRC Sites; - VIS MRC Sites; - Consultancy provisions; - VIS/SIS mail maintenance (support, licences, HW); - Certes maintenance; - CDmon.	24 521 000	24 521 000	01/01/2020	31/12/2020
Other activities related to CBS or network	2.2.1.20	Transition to new TESTA network	2	Network Administrator Network Operations Officer	15 000 000	The activity will enable the migration of large-scale IT systems to the new generation of TESTA (the pan-European network mandatory for maintaining communication between central systems and Member States). The budget is needed for the signature of the specific contract for the implementation of the new TESTA network for large-scale IT systems under eu-LISA management, migration and the initial period of operation.	0	10 000 000	01/01/2020	31/12/2024

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						<p>The budget (commitment appropriation) is needed to cover the transition period from the incumbent communication infrastructure (TESTA-ng) to the new communication infrastructure. The budget will cover the necessary activities needed</p> <ul style="list-style-type: none"> •to establish new communication infrastructure, including all necessary design documents, testing plans, policy, processes and procedures, the establishment of management facilities such as SOC offices, data centre space for central services (management, monitoring, ITSM tools), the establishment of the backbone network (logical) •to build and deploy a pilot set of Turn-Key Access points to allow execution of the testing plan, to validate fulfilment of the necessary requirements and the new communication infrastructure's compliance with business systems •to deploy TAPs (60-70) and necessary connections for one communication infrastructure •to prepare and execute the orderly migration of one communication infrastructure •to cover the initial period of operation (1 year) of the migrated communication infrastructure <p>It is expected that in 2020 the specific contract(s) for the above-mentioned scope will</p>				

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						be prepared and arranged and therefore the necessary commitment appropriations are needed in this period.				
Other activities related to CBS or network	2.1.4.1	Continual service improvement services and processes reviews	1.5	Process Manager Service Manager	540 000	Improved tools as well as to run the project and to reap the expected benefits, including the additional tool and configuration management database licences.			02/02/2020	01/04/2021
Other activities related to CBS or network	2.1.1.7	24/7 second-level application support for operational management of the core business systems	8.25	Application Administrator Applications Administrator Assistant	0	N/A			01/01/2020	31/12/2020
Other activities related to CBS or network	2.2.1.18	Central systems WAN connections move	1	Network Administrator	180 000	The refurbishment of the data centre to have more free space for CSI.	200 000		01/01/2020	31/12/2020
Other activities related to CBS or network	2.2.1.16	Integration of the Single Integrated Monitoring solution with the event management process, covering all the systems in operation	1.75	Service Manager Process Manager Helpdesk Operator	450 000	The budget will be used for: - project management and support; - 'as-is and to-be' analysis; - the technical solution; - integration of the new systems; - alignment with event management; - HW, SW.			05/01/2020	31/12/2023
Other activities related to CBS or network	2.2.2.1	Integration of asset management with configuration management (continuation from 2019)	0.5	System Administrator	180 000	For project management, project support, 'as-is and to-be' analysis, for preparation of the solution.			02/01/2019	31/12/2021
Other activities related to CBS or network	2.1.1.14	Central Unit/ Backup Central Unit (CU/BCU) daily operation management	0.9	Infrastructure Manager Data Centre Manager	996 000	Back-up site running costs, including rental of BCU.	1,150,000	1,250,000	01/01/2020	31/12/2020
Other activities related to CBS or network	2.2.1.15	Continuation of data centre reorganisation activities	0.3	System Administrator Data Centre Manager	500 000	Estimated budget under CSI FwC.			01/01/2018	31/12/2020
Other activities related to CBS or network	2.1.1.11	Operational management/daily system management coordination and shared tasks	1.4	Infrastructure Manager / Head of Sector System Administrator	0	N/A			01/01/2020	31/12/2020
Other activities related to CBS or network	2.1.1.12	Release and deployment management activities	0.95	Release Manager	0	N/A			01/01/2020	31/12/2020

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Other activities related to CBS or network	2.1.2.1	Improvements to the Application Lifecycle Management	0.1	Release Manager Test Manager/Test Team Coordinator	PM				01/01/2020	31/12/2020
Other activities related to CBS or network	2.1.1.13	Licence management	0.05	Infrastructure Manager	2 422 000	The budget will cover the: - ULM part for the EES + any other new system; - ULM part for the SIS; The ULM part for VIS/BMS and Eurodac are paid directly through the respective MWO contract. The budget for other licences is covered by the CSI MWO contract.			01/01/2020	31/12/2020
Other activities related to CBS or network	2.2.1.27	Central repository for reporting and statistics maintenance and alignment with the legal requirements for interoperability	0.5	Project Manager	1 350 000	The budget is necessary to ensure that the central repository for reporting and statistics is properly working and is aligned with the requirements of the interoperability legal base.			01/01/2020	31/12/2020
Security activities related to CBS and network	2.1.1.18	Delivering information security and assurance for the core business systems	3.1	Communications Security Officer Security Officer / Team Leader Security Assistant Security Officer Information Security Expert Information Security Officer	630 000	To purchase licenses and maintenance for security software and hardware, including the Common Shared Infrastructure security elements.			06/01/2020	18/12/2020
Security activities related to CBS and network	2.2.1.28	Combined disaster recovery exercise for SIS, VIS and Eurodac	0.6	Information Security Expert Business Continuity Officer Security Officer / Head of Sector	153 000	The project budget covers: - ENISA's services; - 5 preparatory meetings and 1 assessment meeting with the participants; - Preparation of the exercise venue, tools and technical environment; - Exercise execution and promotional preparations.			01/01/2020	31/12/2020
Security activities related to CBS and network	2.2.1.29	Implementation of the Common Shared Security Infrastructure Phase 4: design and implementation of multi-factor	1.2	Security Officer Communications Security Officer Security Assistant	540 000	A specific contract under the CSI Framework contract including OTP/ smart card device will be used for dual			01/03/2020	30/06/2022

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
		authentication for the EUWS network				factor authentication and the licence for OTP/ smart card management.				
Security activities related to CBS and network	2.1.1.17	Implementation of the recommendations coming from the security and business continuity exercises			0	N/A			01/01/2020	31/12/2020
SIS evolutions	2.2.1.1	New SIS legal framework implementation (continuation from 2019)	1.25	Application Manager Release Manager Test Manager/Test Team Coordinator Test Engineer Customer Relationship Officer Technical Release Coordinator	1 982 000	The new SIS regulations require the SIS 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 implementation experience. Infrastructure, licences and professional services will be purchased under this budget.	1 982 000		01/07/2018	31/12/2021
SIS evolutions	2.2.1.2	SIS Return Decision (continuation from 2019)	0.85	Application Manager / Head of Sector Test Engineer Test Manager/TST Team Coordinator Release Manager Customer Relationship Officer Technical Release Coordinator	447 000	Mandatory budget calculated based on equivalent previous SIS initiatives. Hardware, licences and professional services.			01/10/2018	31/12/2021
SIS evolutions	2.2.1.4	New Search Engine & Oracle upgrade for the SIS, improving availability and considering transcription aspects (continuation from 2019)	2.45	Application Manager Application Administrator Test Engineer Customer Relationship Officer Change Manager Release Manager Technical Release Coordinator IT Specialist	0	N/A			01/06/2018	31/03/2020
SIS evolutions	2.2.1.8	SIS - Central system backup service move to Virtual Tape Libraries	0.3	Application Manager / Head of Sector IT Specialist	378 000	The budget has been calculated based on similar projects.			01/01/2020	31/12/2020

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						Expenditure is expected to contribute to: 1. Reduction of TCO of SIS IT Infrastructure 2. Standardisation with eu-LISA's Common Shared Backup Infrastructure for SIS, Eurodac and VIS Systems 3. Building a state-of-the-art computer centre 4. Implementing storage consolidation 5. Increasing performance of backup & restore operations 6. Releasing data centre footprint (next project) that can be used for implementation of future eu-LISA systems				
SIS evolutions	2.2.1.13	Implementation of SIS AFIS Phase 2 (continuation from 2019)	1	Project Manager Technical Release Coordinator IT Specialist Application Administrator	0	N/A			01/01/2019	30/11/2020
SIS evolutions	2.2.1.14	Implementation of ABIS for SIS (face recognition)	1.6	Test Engineer Project Manager IT Specialist Application Administrator	997 000	Budget calculated based on previous AFIS implementation experience. Implementation of ABIS is about implementing the biometric requirements stemming from the SIS legal base.		10,000,000	01/11/2020	31/08/2022
SIS evolutions	2.2.1.9	SIS Pre-Production Environment (PPE) move from In the Mountain (ITM) to Out of the Mountain (OTM)	0.35	Application Administrator Application Manager Test Engineer	900 000	The budget is estimated based on preliminary estimates of the work to be done and will contribute to executing eu-LISA's management decision to retain only production systems on BCU ITM premises.			01/01/2020	30/09/2021
SIS evolutions	2.1.1.8	SISI II unplanned evolutions (including implementation of parallelisation of DCCs, a study on a better comparison algorithm and/or technologies)	1.05	Test Engineer Application Administrator Technical Release Coordinator Change Manager	720 000	The budget is calculated based on previous activities and historical data.			01/01/2020	31/12/2020

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
SIS maintenance	2.1.1.4	SIS maintenance	1	Test Engineer Application Manager Change Manager Application Administrator	6 000 000	Budget calculated based on current SIS MWO costs: Corrective maintenance: incident management, problem management, change management, release management; -Adaptive maintenance: follow and anticipate the obsolescence of system components so that the SIS constantly remains compliant with state-of-the-art technologies and availability of support for component manufacturers or editors; implementation to be carried out as modifications -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 continue to be supported by suppliers (licence renewal, patching, etc.); -Managing the interaction with the MWO contractor and contractual follow-up for the above aims.			01/01/2020	31/12/2020
SIS maintenance	2.1.1.5	SIS AFIS maintenance	1.35	Application Manager Application Administrator Test Engineer Change Manager Release Manager	2 500 000	Included in the SIS MWO costs. Corrective maintenance is a mandatory and basic activity. The budget is based on historical data.			01/01/2020	31/12/2020
SIS maintenance	2.1.1.6	SIS support to Member States	0.45	Test Manager/TST Team Coordinator Application Manager Test Engineer	450 000	The budget is based on historical information and data.			01/01/2020	31/01/2020

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
Technology monitoring expenditure	2.3.1	Execution of annual research and technology monitoring roadmap for 2020 and the research and technology monitoring strategy 2019-2021	2.25	Research and Development Officer/ Head of Sector Research Officer Research Assistant	0	N/A			01/01/2020	31/12/2020
Technology monitoring expenditure	2.3.1	Integration of research findings into internal projects and administration of the eu-LISA library	1.65	Research and Development Officer/ Head of Sector Research Officer Assistant for Statistics and Research	0	N/A			01/01/2020	13/12/2020
Training directly related to operations	2.1.1.19	Implementation of the training plan for the provision of training to the Member States on the technical use of the IT systems managed by the Agency	4.1	Training Coordinator for the Member States Policy Officer Administrator for Reporting and Statistics SNE Expert for training on the large-scale IT systems managed by eu-LISA Expert in SIRENE cooperation) Trainer	550 000	Delivery of annual training plan (incl. new systems).			01/01/2020	31/12/2020
Training directly related to operations	2.3.4	Training of eu-LISA staff on operations (technical training for staff) and knowledge management	0.9	Learning and Development Officer Training Assistant	850 000 ⁵⁷	The budget will be used for: - Implementation of training related to operations and applications; - Further development of technical onboarding of e-learning content (innovative methods such as VR); - Certification process to access eu-LISA core systems; - Professionalisation of staff by keeping their IT skills up to date with market standards; - Additional systems to be developed and hosted by the Agency will require upgrading current skills of staff.			01/01/2020	31/12/2020

⁵⁷ This budget line covers expenditures for: a) costs arising from training and associated activities aimed at supporting Member States in the framework of the Agency's operational activities; and b) training, professional certification and knowledge management of staff, directly related to operational activities.

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						- The increase in the number of operational staff will increase the overall costs of technical training; - Implementation of Knowledge Management; - Input provided by Head of Sectors and contributors to the Training Needs Analysis Survey 2020 (for estimates); - In-house training lab.				
VIS/BMS evolutions	2.2.1.3	BMS database increase (Continuation from 2019)	0.25	Project Manager Application Administrator Test Engineer	0	N/A			03/09/2017 00:00:00	30/04/2020 03:00:00
VIS/BMS evolutions	2.2.1.7	Test environment (TST) upscale to 100% of pre-production environment (PPE) (Phase 1) (continuation from 2019)	0.7	Test Manager Project Manager Application Manager Applications Administrator Assistant	0	N/A			02/06/2019	01/12/2020
VIS/BMS evolutions	2.2.1.12	Amendments of the VIS regulation (preparation for implementation)	0.5	Application Manager Customer Relationship Officer Applications Administrator Assistant Project Manager	PM		16 244 000	28 928 000	01/06/2020	30/06/2024
VIS/BMS maintenance	2.1.1.3	VIS/BMS maintenance	0.5	Application Manager / Head of Sector Project Manager Applications Administrator Assistant Customer Relationship Officer	18 305 000	The budget of the activity will cover the following: - Transversal services (Programme and Project Management, ITSM processes, Quality Management, Security and Risk Management, Application Management Business Continuity, Auditability/Traceability Management); - Corrective Maintenance (reacting to the anomalies noticed during the operation of the systems by implementing their correction or temporary bypass measures			01/01/2020	31/12/2020

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						<p>(until a final correction is implemented));</p> <ul style="list-style-type: none"> - Preventive Maintenance (detecting and correcting latent faults in the systems before they become effective faults and developing changes to the systems to reduce the chance of future system failure); - Perfective Maintenance (optimising processes/services/environment permanently, with a strong focus on quality, security and continuity. It ranges from continuous technical analysis of the systems to analysis of processes, projects and organisation, bringing expertise, advice and concrete proposals for optimisation and improvements. The perfective maintenance is expected to be implemented through the continuous service improvement service); - Adaptive Maintenance (updating the configuration of all the hardware equipment, firmware, local network components and software (OS, COTS and applications) components of the systems to keep them in line with the technical support guaranteed by their vendors; and modification of the applications to keep them running and respecting the operational SLA in a changed or changing environment (e.g. 				

Annex 1 section	Reference number in Section 2	Title of the annual activity	Number of direct FTEs to be used in 2020 ⁵²	Direct FTEs	The budget for the activity year 2020 (excl. external support) in euros	Justification for the activity budget	Budget for 2021 (excl. external support) in euros	Budget for 2022 (excl. external support) in euros	Start date	Delivery date
						COTS, communication protocols, etc.)).				

Annex II: Financial resources 2020-2022

Table 13 – Expenditure

Expenditure	2019		2020	
	Commitment appropriations	Payment appropriations	Commitment appropriations	Payment appropriations
Title 1	24,985,000	24,985,000	36,798,000	36,798,000
Title 2	15,184,000	15,184,000	14,465,000	14,465,000
Title 3	250,476,936	100,136,836	189,859,000	145,704,000
Total expenditure	290,645,936	140,305,836	241,122,000	196,967,000

EXPENDITURE	Commitment appropriations						
	Executed Budget 2018	Budget 2019	Draft Budget 2020		VAR 2020 / 2019	Envisaged in 2021	Envisaged 2022
			Agency request	Budget Forecast			
Title 1							
Staff Expenditure	17,816,945	24,985,000	36,798,000		147%	40,344,000	41,766,000
Salaries & allowances	15,899,411	20,840,314	34,799,688		167%	34,844,000	35,836,000
- of which establishment plan posts	13,106,097	15,701,257	25,400,688		162%	22,329,567	23,008,658
- of which external personnel	2,793,314	5,139,057	9,399,000		183%	12,514,433	12,827,342
Expenditure relating to Staff recruitment	151,847	1,130,900	379,523		34%	926,000	1,041,000
Mission expenses	477,315	443,700	426,000		96%	600,000	660,000
Socio-medical infrastructure	827,595	1,652,526	640,229		39%	2,541,000	2,710,000
Training	460,777	917,560	552,560		60%	1,433,000	1,519,000
Title 2							
Infrastructure and operating expenditure	11,188,976	15,184,000	14,465,000		95%	26,997,400	31,827,100
Rental of buildings and associated costs	1,077,260	1,897,588	1,043,000		55%	13,353,400	17,685,100
Information and communication technology	2,389,068	2,730,588	1,700,000		62%	2,400,000	2,500,000
Movable property and associated costs	627,031	539,000	246,000		46%	289,000	289,000
Current administrative expenditure	622,456	1,072,195	1,278,100		119%	1,033,100	1,141,700
Postage / Telecommunications	25,500	59,000	40,000		68%	36,000	38,000
Meeting expenses	227,581	509,000	970,000		191%	520,400	525,400
Information and Publications	774,397	1,396,000	1,532,000		110%	1,735,000	1,735,000
External Support Services	3,534,900	3,910,914	4,605,900		118%	4,791,000	4,807,900
Security	1,910,784	3,069,715	3,050,000		99%	2,839,500	3,105,000
Title 3							
Operational expenditure	127,291,893	250,476,936	189,859,000		76%	205,282,000	313,071,000
Infrastructure	16,712,506	37,626,000	59,021,000		157%	85,181,000	157,727,000
Applications	105,356,869	205,664,972	123,110,000		60%	107,254,000	139,016,000
Operational support activities	5,222,518	7,185,964	7,728,000		108%	12,847,000	16,328,000
Support to MS and EC							
TOTAL EXPENDITURE	156,297,814	290,645,936	241,122,000		83%	272,623,400	386,664,100

Table 14 – Revenue

Revenues	2019	2020
	Revenues estimated by the agency	Budget Forecast
EU contribution	138,062,900	196,967,000
Other revenue	2,242,936	p.m.
Total revenues	140,305,836	196,967,000

REVENUES	2018	2019	2020		VAR 2020/2019	Envisaged 2021	Envisaged 2022
	Executed Budget	Revenues estimated by the agency	As requested by the agency	Budget Forecast			
1 REVENUE FROM FEES AND CHARGES							
2. EU CONTRIBUTION	93,752,431	138,062,900	196,967,000		143%	232,436,400	324,978,100
<i>of which assigned revenues deriving from previous years' surpluses</i>	1,341,491	920,267					
3 THIRD COUNTRIES CONTRIBUTION (incl. EFTA and candidate countries)	3,530,919	2,242,936					
<i>of which EFTA</i>	3,530,919	2,242,936					
<i>of which Candidate Countries</i>							
4 OTHER CONTRIBUTIONS							
<i>of which delegation agreement, ad hoc grants</i>							
5 ADMINISTRATIVE OPERATIONS							
6 REVENUES FROM SERVICES RENDERED AGAINST PAYMENT							
7 CORRECTION OF BUDGETARY IMBALANCES							
TOTAL REVENUES	97,283,350	140,305,836	196,967,000		143%	232,436,400	324,978,100

*) Additional appropriations for ECRIS and revised ER - additional tasks (unknown at the time of the draft budget 2018 was prepared in January 2017) amounting to EUR 30 MIO will be added to eu-LISA Financial Statement upon adoption of the legal basis. For details see Annex II - Table 3 – Overview of Revenue and Expenditures

Table 15 – Overview of revenue and expenditure

			COMMITMENT APPROPRIATIONS				
			2018 Budget (outturn)	2019 voted Budget	2020 draft estimates	2021 draft estimates	2022 draft estimates
Title 1 Staff expenditure	eu-LISA estimates	Total eu-LISA estimates	17,816,945	24,985,000	36,530,000	39,134,000	40,109,000
		Baseline / Establishment plan	17,816,945	24,985,000	32,309,000	34,913,000	35,691,000
		EES operational phase acc to LFS			4,221,000	4,221,000	4,418,000
	Subject to new legal basis	Total LFS subject to new legal basis			268,000	1,210,000	1,657,000
		LFS EURODAC			268,000	268,000	281,000
		LFS VIS recast				942,000	1,376,000
Total Title 1			17,816,945	24,985,000	36,798,000	40,344,000	41,766,000
Title 2 Infrastructure and operating expenditure	eu-LISA estimates	Total eu-LISA estimates	11,188,976	15,184,000	14,465,000	26,997,400	31,827,100
		Baseline	11,188,976	9,436,000	9,527,000	15,714,000	16,212,000
		new Building project SXB				11,283,400	15,615,100
		Expenditure due to increased staffing		5,748,000	4,938,000		
	Total Title 2			11,188,976	15,184,000	14,465,000	26,997,400
Title 3 Operational expenditure	eu-LISA estimates	Total eu-LISA estimates	127,291,893	250,476,936	189,124,000	157,895,000	270,413,000
		Shared System Infrastructure/Networks	16,712,506	34,808,000	47,067,000	44,829,000	51,552,000
		Interoperability		2,818,000	11,954,000	40,352,000	106,175,000
		SIS II	16,975,686	19,954,185	14,374,000	13,300,000	19,576,000
		VIS / BMS	23,087,166	24,039,025	18,305,000	28,000,000	44,000,000
		EURODAC	3,999,350	2,672,762	6,525,000	4,200,000	4,300,000
		EES	58,747,768	144,210,000	23,605,000	6,300,000	10,300,000
		ETIAS	2,546,900	11,023,000	55,800,000		15,914,000
		ECRIS		3,766,000	3,766,000	8,067,000	2,268,000
		Operational support activities	5,222,518	7,185,964	7,728,000	12,847,000	16,328,000
	Subject to new legal basis	Total LFS subject to new legal basis			735,000	47,387,000	42,658,000
		LFS EURODAC				50,000	52,000
		LFS Dublin Allocation			735,000	9,450,000	13,678,000
		LFS VIS recast				37,887,000	28,928,000
Total Title 3			127,291,893	250,476,936	189,859,000	205,282,000	313,071,000
TOTAL EXPENDITURE	eu-LISA estimates		156,297,814	290,645,936	240,119,000	224,026,400	342,349,100
	Subject to new legal basis	Total LFS subject to new legal basis			1,003,000	48,597,000	44,315,000
		LFS EURODAC			268,000	318,000	333,000
		LFS Dublin Allocation			735,000	9,450,000	13,678,000
		LFS VIS recast				38,829,000	30,304,000
	Total expenditure			156,297,814	290,645,936	241,122,000	272,623,400

Table 16 – Budget out-turn and cancellation of appropriations

Budget outturn	2016	2017	2018
Revenue actually received (+)	96,524,173	70,280,673	97,283,350
Payments made (-)	- 74,526,778	- 62,670,566	- 88,764,566
Carry-over of appropriations (-)	- 8,462,207	- 9,995,960	- 12,738,803
Cancellation of appropriations carried over (+)	474,015	658,330	920,262
Adjustment for carry over of assigned revenue appropriations from previous year (+)	2,460,299	3,068,767	4,220,019
Exchange rate differences (+/-)	- 206	248	5
Adjustment for negative balance from previous year (-)	- 7,652,181		
Total	8,817,115	1,341,491	920,267

Annex III: Human resources – staff population

The table shows the increase in the total number of posts for contract agents and temporary agents due to the developments described in Chapter 3.2.2 *Human Resources*, summarised in *Table 12 – Global overview of the additional posts for eu-LISA in the years 2020-2022*. It includes the figures following the 5% cut in temporary agent posts, the adopted Regulations on the new systems and on the Agency, as well as Commission proposals on which discussions are still ongoing.

Table 17 – Staff population and evolution; overview of all categories of staff

Staff population		Actually filled as of 31.12.2017	Authorised under 2018 EU budget	Actually filled as of 31 12.2018	Authorised under 2019 EU budget	In draft budget for 2020	Envisaged in 2021	Envisaged in 2022
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	71	94	80	129	149	159.5	161.5
	AST	43	42	42	43	53	53	53
	AST/SC	0	0	0	0	0	0	0
TOTAL (TA and Officials)		114	136	122	172	202	212.5	214.5
CA GF IV		27	40	25	59.5	73	83.5	85.5
CA GF III		5	1	6	26.5	36	47	57
CA GF II		0	0	0	2	2	2	2
CA GF I		0	0	0	0	0	0	0
TOTAL (CA)		32	41	31	88	111	132.5	144.5
SNE		7	9	9	11	11	11	11
TOTAL		153	186	162	271	324	356	370

Structural service providers ⁵⁸	69	70	70	70	70	70	70
TOTAL (All)	222	242	232	341	394	426	440
External staff for occasional substitutions	2	2	-	-	2	2	2

Table 18 – Multiannual staff policy plan year 2020 – 2022

The establishment plan outlines an indicative plan for the years 2020-2022 that takes into account the establishment plan figures approved for 2018 and 2019 as well as the additional staff expected from 2020 to cover the EES operational phase (an 18 additional posts are planned), for the new eu-LISA Regulation and for the interoperability of the systems following the adoption of the respective legal instrument, and one post requested by the Agency.

In 2018, no changes to the establishment plan were requested through the 10% flexibility rule.

Changes to the numbers in the grades below are due to the calculation of posts for the purpose of reclassification of staff. Figures for the years 2021 and 2022 are indicative and may change.

Category and grade	Establishment plan in 2018 EU budget		Filled as of 31.12. 2018		Modifications in 2018 to application of flexibility rule		Establishment plan in voted 2019 EU budget		Modifications in 2019 to application of flexibility rule		Establishment plan in draft 2020 EU budget		Establishment plan 2021		Establishment plan 2022	
	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA
AD 16		0				-		0				0		0		0
AD 15		1		1		-		1				1		1		1
AD 14		1		1 ⁵⁹		-		1				1		1		1

⁵⁸ The structural and external service providers are described in Annex IV, point A(e).

⁵⁹ Post due to the change of a contract occurring in 2017, currently occupied by an agent in grade AD 7.

Category and grade	Establishment plan in 2018 EU budget		Filled as of 31.12. 2018		Modifications in 2018 to application of flexibility rule		Establishment plan in voted 2019 EU budget		Modifications in 2019 to application of flexibility rule		Establishment plan in draft 2020 EU budget		Establishment plan 2021		Establishment plan 2022	
	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA
AD 13		2		2		-		3 ⁶⁰				3		3		3
AD 12		3		3		-		4 ⁶¹				4		4		4
AD 11		5		4		-		5				5		5		5
AD 10		8		5		-		8				8		8		8
AD 9		13		10		-		16 ⁶²				16		16		16
AD 8		17		11		-		17 ⁶³				17		17		17
AD 7		21		21		-		31 ⁶⁴				32 ⁶⁵		34 ⁶⁶		34
AD 6		12		11		-		14 ⁶⁷				15 ⁶⁸		16.5 ⁶⁹		16.5

⁶⁰ Includes 1 post for Deputy Executive Director.

⁶¹ Includes 1 additional post for the new eu-LISA Regulation.

⁶² Includes 2 posts for new eu-LISA Regulation and 1 post for interoperability of the systems.

⁶³ Includes 1 post for the EES.

⁶⁴ Includes 10 posts for the new eu-LISA Regulation

⁶⁵ Includes 1 post for the new eu-LISA Regulation.

⁶⁶ Includes 2 posts for VIS recast.

⁶⁷ Includes 2 additional posts for interoperability of the systems.

⁶⁸ Includes 1 post for interoperability of the systems.

⁶⁹ Includes 0.5 posts for interoperability of the systems + 1 for VIS recast.

Category and grade	Establishment plan in 2018 EU budget		Filled as of 31.12. 2018		Modifications in 2018 to application of flexibility rule		Establishment plan in voted 2019 EU budget		Modifications in 2019 to application of flexibility rule		Establishment plan in draft 2020 EU budget		Establishment plan 2021		Establishment plan 2022	
	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA
AD 5		11		11		-		29 ⁷⁰				47 ⁷¹		54 ⁷²		56 ⁷³
Total AD		94		80		-		129				150.5		161		163
AST 11		0		0		-		0				0		0		0
AST 10		0		0		-		0				0		0		0
AST 9		1		1		-		1				1		1		1
AST 8		2		2		-		2				2		2		2
AST 7		4		4		-		4				4		4		4
AST 6		9		9		-		9				9		9		9
AST 5		14		14		-		12				12		12		12
AST 4		11		11		-		12				12		12		12

⁷⁰ Includes 7 posts for the new eu-LISA Regulation and 11 posts for interoperability of the systems.

⁷¹ Includes 10 additional posts for interoperability of the systems + 8 posts for the EES operational + 1 post for the new eu-LISA Regulation.

⁷² Includes 6 additional posts for interoperability of the systems + 1 post for VIS recast.

⁷³ Includes +2 additional posts for VIS recast.

Category and grade	Establishment plan in 2018 EU budget		Filled as of 31.12. 2018		Modifications in 2018 to application of flexibility rule		Establishment plan in voted 2019 EU budget		Modifications in 2019 to application of flexibility rule		Establishment plan in draft 2020 EU budget		Establishment plan 2021		Establishment plan 2022	
	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA
AST 3		1		1		-		3 ⁷⁴				13 ⁷⁵		13		13
AST 2		0		0		-		0				0		0		0
AST 1		0		0		-		0				0		0		0
Total AST		4 ²		4 ²		-		4 ³				5 ³		5 ³		5 ³
AST/SC1		0		0		-		0		0		0		0		0
AST/SC2		0		0		-		0		0		0		0		0
AST/SC3		0		0		-		0		0		0		0		0
AST/SC4		0		0		-		0		0		0		0		0
AST/SC5		0		0		-		0		0		0		0		0
AST/SC6		0		0		-		0		0		0		0		0
Total AST/SC		0		0		-		0		0		0		0		0

⁷⁴ Includes 1 additional post for the new eu-LISA Regulation.

⁷⁵ Includes 10 posts for the EES operational.

Category and grade	Establishment plan in 2018 EU budget		Filled as of 31.12. 2018		Modifications in 2018 to application of flexibility rule		Establishment plan in voted 2019 EU budget		Modifications in 2019 to application of flexibility rule		Establishment plan in draft 2020 EU budget		Establishment plan 2021		Establishment plan 2022	
	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA
TOTAL		136		122		-		172		0		202		212.5		2014.5

Annex IV: Human resources

A. Recruitment policy

The Agency's recruitment policy as regards selection procedures, entry grades of different categories of staff, type and duration of employment and different job profiles is regulated by the Conditions of Employment of Other Servants of the European Union 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 (SNEs).

In 2018, a number of recruitment and selection procedures took place to replace staff leaving eu-LISA during the course of the year (5 TA and 1 CA) and also for new positions (7 vacancies for TAs, 13 vacancies for CAs and 1 SNE vacancy). Selection procedures were conducted in order to establish the reserve lists for ETIAS and some new posts for the revised founding Regulation.

The recruitment policy describes the situation from when eu-LISA was first established and emphasises the present situation.

a) Officials

eu-LISA has no permanent posts in its Establishment Plan.

b) Temporary agents

Staff members at 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 operational tasks relating to the Agency's mandate that cannot be outsourced.

In 2018, eu-LISA recruited staff by launching internal and external selection procedures or by using the reserve lists from the selection procedures organised by the Agency in previous years. No inter-agency recruitment calls have been published to date.

Staff are recruited 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 respective 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 2018 were as follows:

AST 3 to AST 4;

AD 5 to AD 8;

AD 9 to AD 10 in the case of the Head of Unit role.

Duration of contracts:

The internal eu-LISA guidelines on contract renewal⁷⁶ state that temporary agents (2f) are offered a first fixed-term contract of 5 years, renewable for a period not exceeding 5 years. A second renewal will mean that the contract is then extended indefinitely, i.e. becomes permanent. In November 2016, the eu-LISA Management Board authorised⁷⁷ its Executive Director to grant indefinite contracts to temporary staff after the first five-year term of the contract, 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 Management Board Decision No 2015-166 of 18 November 2015). Contract renewals are subject to a thorough examination of the performance of the staff member and depend on eu-LISA's priorities and available budgetary provisions in accordance with the internal guidelines on contract renewal that were developed for this purpose. In 2018, 67 contracts were renewed.

Recruitment procedure:

The key phases of the selection procedures for the recruitment of temporary agents and contract agents are 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 applications, 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 to assess their specific competences in the area of expertise, their general aptitudes and language skills. For managerial positions an assessment centre may also be organised as part of the selection process.

The Selection Committee proposes a list of successful candidates to the Executive Director⁷⁸, 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.

c) Contract agents

Contract agents are employed to work with 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 the eu-LISA over time, in particular administrative support.

To recruit contract agents, eu-LISA launches an external selection procedure, or uses the reserve lists provided by the European Personnel Selection Office or the reserve lists established by the Agency.

Contract agents may be offered fixed-term contracts with a maximum duration of 5 years, which may be renewed once for a maximum of 5 years, in accordance with Article 85 of the Conditions of Employment of other Servants of the European Union, or they may be offered contracts of a duration of 2 years, which can also be renewed once and used for short-term projects. A 1-year contract without the possibility of renewal may be offered to replace a staff member on a long absence. However, this was proven to be an ineffective solution that resulted candidates who successfully passed the selection procedure refusing job offers.

⁷⁶ Decision of the Executive Director No 43/2016 of 31 May 2016.

⁷⁷ Decision No 2016-123 of 16 November 2016 (reference document 2016-140).

⁷⁸ For the posts where appointment 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.

Any further renewal of an employment contract will be for an indefinite period. Renewals of contracts for contract agents will depend on eu-LISA's priorities and the available budgetary provisions and will be subject to a thorough examination of the performance of the staff member. An increasing number of contract agents at the Agency in comparison to the total number of staff and the duration of these contracts show a trend that may need to be analysed if some of those posts should not be considered long-term and should be transformed into temporary agent contracts. Otherwise, as from 2021 the Agency will have to be prepared to grant a number of employment contracts of indefinite duration.

d) Seconded national experts⁷⁹

SNEs are seconded to eu-LISA by the EU Member States for specialised tasks that ensure eu-LISA's operations remain firmly in touch with 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 has adopted the necessary implementing measures⁸⁰ on seconded national experts, which describe selection procedures, duration of secondment, working conditions, allowances and expenses.

e) Structural service providers⁸¹

In 2018, eu-LISA continued to use external service providers for services or projects that could not be covered by the Agency's staff due to the limited human resources at eu-LISA or the specialised nature of the qualifications or knowledge required. They are expected to be used in the next few years too.

The table below shows the services used in 2018. It was expected that due to the insourcing of 25 posts providing services that had been previously outsourced, the number of intra-muros (contractors working on-site) posts might decrease. However, due to the fact that the Agency's requests for additional contract agent posts were not approved for 2018 or 2019, the respective tasks related to them will have to be outsourced and this will result in maintaining the number of intra-muros posts at a similar level (70 FTEs foreseen). This number should be taken as an estimation.

It should be noted that the duration of the contract means the duration of a framework contract. The services under a framework contract are provided with the signing of individual contracts, the duration of which varies between a couple of months and one year.

Structural service providers to eu-LISA in 2018

No	Tasks assigned	Resources in FTE	Tender procedure	Contract duration	Service description
1.	External support	70 FTEs ⁸²	FWC - LISA/2014/OP/03 (lots 1-4)	4 years (2015-2018)	This contract covers various services of an (a) ICT and (b) administrative nature that entail but are not limited to: <ul style="list-style-type: none"> - Development and implementation of the internal IT infrastructure (the core corporate information systems such as the document management system, missions management system); - Supporting operational activities related to BMS, and SIS;

⁷⁹ SNEs are not employed by the Agency.

⁸⁰ Notification of the MB decision, document no 2012-025 of 28 June 2012.

⁸¹ NB Structural service providers are not employed by the Agency.

⁸² This number represents individual contracts for intra-muros support services and services being provided (status at 31.12.2018). In 2018, 80 specific contracts were signed: 70 TM (Time and Means) intra-muros contracts and 10 extra-muros contracts (QTM - Quoted Time and Means and FP – Fixed Price).

No	Tasks assigned	Resources in FTE	Tender procedure	Contract duration	Service description
					<ul style="list-style-type: none"> - Customisation and integrated governance for activities based management, including budgeting, project management, procurement and contract management; - Supporting performance of tasks such as internal and external communication, secretarial assistance; secretariat of the Management Board etc.; - Streamlining training, leave and time management activities under HR's remit in preparation for the customisation and introduction of the e-HR tool.

B. Appraisal of performance and reclassification/promotions

2018 was the fourth year when 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 19.

The rate of promotions in 2018 was 22.8 %, which is below the average rate in Annex IB to the Staff Regulations (26.63%). The average seniority in a grade, however, at the time of the reclassification taking effect, was 2.95 years, which was below the average in Annex IB to the Staff Regulations. (4.3 years).

Since 2017, eu-LISA has been decreasing the reclassification rate in order to align the average time spent in a grade with the CEOS and the implementing rules on the reclassification of temporary agents and contract agents⁸³.

Table 19 – Reclassification of temporary staff/promotion of officials

Category and grade	Staff active as at 1.01.2017		Number of staff promoted or reclassified in 2018		Average number of years in grade of reclassified/promoted staff
	officials	TA	officials	TA	
AD 16	N/A	0			
AD 15	N/A	0			
AD 14	N/A	1			
AD 13	N/A	2			
AD 12	N/A	1			
AD 11	N/A	5		3	2
AD 10	N/A	4			

⁸³ Decision of the eu-LISA Management Board No 2016-016 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 2016-017 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 active as at 1.01.2017		Number of staff promoted or reclassified in 2018		Average number of years in grade of reclassified/promoted staff
	officials	TA	officials	TA	
AD 9	N/A	8		2	3.5
AD 8	N/A	14		2	2
AD 7	N/A	13			
AD 6	N/A	15		8	2.4
AD 5	N/A	8		2	4.2
Total AD	N/A	71		17	2.8
AST 11	N/A	0			
AST 10	N/A	0			
AST 9	N/A	0			
AST 8	N/A	2			
AST 7	N/A	1			
AST 6	N/A	7		3	2.3
AST 5	N/A	9		1	2.6
AST 4	N/A	15		4	2.3
AST 3	N/A	9		1	5.3
AST 2	N/A	0			
AST 1	N/A	0			
Total AST	N/A	43		9	3.1
AST/SC1	N/A	0			
AST/SC2	N/A	0			
AST/SC3	N/A	0			
AST/SC4	N/A	0			

Category and grade	Staff active as at 1.01.2017		Number of staff promoted or reclassified in 2018		Average number of years in grade of reclassified/promoted staff
	officials	TA	officials	TA	
AST/SC5	N/A	0			
AST/SC6	N/A	0			
Total AST/SC		0		0	0
Total		114		26	2.95

Table 20 – Reclassification of contract staff

In 2018, the third reclassification of contract staff took place, with the following outcome.

Function Group	Grade	Staff active as at 1.01.2017	Number of staff reclassified in 2018	Average number of years in grade of reclassified staff
CA IV	18	0		
	17	1	1	2
	16	2		
	15	4	1	2
	14	11	2	2
	13	4	2	2
CA III	12	0		
	11	0		
	10	1	1	2
	9	2		
	8	0		
CA II	7	0		
	6	0		
	5	0		
	4	0		

Function Group	Grade	Staff active as at 1.01.2017	Number of staff reclassified in 2018	Average number of years in grade of reclassified staff
CA I		0		
Total		25	7	2

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 the eu-LISA and between the agencies.

In 2015, eu-LISA adopted a reference decision⁸⁴ on the engagement and use of temporary agents (TA 2f). Due to the organisational structure and development of eu-LISA, internal mobility needs and opportunities are assessed with each vacancy or new post created.

In 2018, seven internal transfers and changes of duties took place:

- the Head of Application Management and the Maintenance Unit was temporarily assigned to duties as Head of the Operations Department, taking effect from 10 January 2018;
- the Network Administrator was reassigned to the post of Project Manager, taking effect from 16 January 2018;
- the Helpdesk Operator was reassigned to the post of Test Manager, taking effect from 16 January 2018;
- the acting Head of Security Unit was temporarily assigned to duties as Head of the Operations and Infrastructure Unit, taking effect from 20 March 2018;
- the Budget Officer (Head of Sector) was reassigned to the post of Finance and Budget Officer (Head of Sector), taking effect from 1 June 2018;
- the Procurement Officer was reassigned to the post of Procurement Officer (different grade, tasks and responsibilities), taking effect from 16 August 2018;
- the Communication and Information Officer (Head of Internal and External Communication Sector) was temporarily assigned to duties as Head of the General Coordination Unit, taking effect from 1 November 2018.

Inter-institutional mobility is also a reality at eu-LISA. In 2018, three people left eu-LISA in order to work for the European Commission, European Parliament or another European agency; from among the 17 recruited new staff members, five people came from another European Institution, agency or body.

⁸⁴ 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.

D. Gender and geographical balance

Gender distribution according to type of role and level is presented in Table 21.

Table 21 – Staff of eu-LISA split by gender

Gender	Administrators			Assistants		Total
	TA	CA	SNE	TA	CA	
Male	65	18	8	29	6	126
Female	15	7	1	13	0	36
Total staff	80	25	9	42	6	162

The visible gender imbalance at eu-LISA is due to the IT environment being mostly populated by men at the Agency's Operations Department in Strasbourg. A higher interest from men in employment at eu-LISA is also visible in the number of applications received from the recruitment notices. However, it is worth noting that all types of organisations face the same challenge in the area of IT, which is due to education patterns⁸⁵ for ICT studies. Solutions implemented by eu-LISA in order to facilitate a good work-life balance for its staff (flexitime, teleworking) have not brought about any remarkable changes to this situation.

Geographical balance

Among eu-LISA staff, 21 EU nationalities are represented.

Recruiting a wide geographical range of staff contributes to a diversity of culture and mutual exchange. Since its main locations are Tallinn and Strasbourg, eu-LISA perceives that the over-representation of Estonian and French staff, who make up 30 % of the total number of employees in the respective locations, is a natural tendency and does not constitute a major geographical imbalance. French staff are the largest group, which can be attributed to the fact that some of the staff working for the French national authorities on IT projects that were transferred to the Agency when the Agency was set up, joined eu-LISA after taking part in the competition procedures for these highly specialised posts.

The nationalities of eu-LISA's staff (temporary agents) per function group are shown in Table 22.

Table 22 – Staff of eu-LISA split by nationality

eu-LISA – number of staff of different nationalities employed as at 31.12.2018				
Nationality	AD	AST	Total AD + AST	Percentage
Austria (AT)	0	0	0	0
Belgium (BE)	2	4	6	4.9
Bulgaria (BG)	3	0	3	2.6
Croatia (HR)	1	0	1	0.8

⁸⁵ At the 'Reimagine HR' Gartner conference held on 5-6 September 2018, it was presented that in IT or ICT studies, the percentage of women is below 50% and only 15% of female graduates enter the labour market in the ICT field.

eu-LISA – number of staff of different nationalities employed as at 31.12.2018				
Nationality	AD	AST	Total AD + AST	Percentage
Cyprus (CY)	0	0	0	0
Czech Republic (CZ)	1	0	1	0.8
Denmark (DK)	0	0	0	0
Estonia (EE)	4	6	10	8.2
Finland (FI)	0	1	1	0.82
France (FR)	21	8	29	23.8
Germany (DE)	4	1	5	4.1
Greece (EL)	12	1	13	10.7
Hungary (HU)	4	2	6	4.9
Ireland (IE)	2	0	2	1.6
Italy (IT)	9	1	10	8.12
Latvia (LV)	0	3	3	2.5
Lithuania (LT)	1	3	4	3.3
Luxembourg (LU)	0	0	0	0
Malta (MT)	0	0	0	0
Netherlands (NL)	0	1	1	0.83
Poland (PL)	4	2	6	4.93
Portugal (PT)	1	2	3	2.5
Romania (RO)	8	4	12	9.8
Slovakia (SK)	2	0	2	1.6
Slovenia (SI)	0	0	0	0
Spain (ES)	2	1	3	2.5
Sweden (SE)	0	0	0	0
United Kingdom (UK)	0	1	1	0.8
Total staff	81	41	122	100

In order to achieve a representation of nationalities with percentages similar to the representation of nationalities in the EU population as a whole, since October 2014 the Agency has been adding specific messages to all its vacancy notices encouraging candidates from countries under-represented at eu-LISA to apply.

The nationalities of the other groups making up eu-LISA's staff (contract agents and seconded national experts) are presented in Table 23.

Table 23 – eu-LISA’s contract agents and SNEs split by nationality

Nationality	eu-LISA - status as at 31.12.2018		
	CA FG IV	CA FG III	SNE
Austria (AT)	0	0	0
Belgium (BE)	1	0	0
Bulgaria (BG)	0	0	0
Croatia (HR)	1	0	1
Cyprus (CY)	0	0	0
Czech Republic (CZ)	0	0	0
Denmark (DK)	0	0	0
Estonia (EE)	1	2	0
Finland (FI)	0	0	0
France (FR)	9	3	0
Germany (DE)	1	0	2
Greece (EL)	3	1	2
Hungary (HU)	0	0	0
Ireland (IE)	0	0	0
Italy (IT)	1	0	2
Latvia (LV)	0	0	0
Lithuania (LT)	0	0	0
Luxembourg (LU)	0	0	0
Malta (MT)	0	0	0
Netherlands (NL)	0	0	0
Poland (PL)	1	0	1
Portugal (PT)	1	0	0
Romania (RO)	4	0	0
Slovakia (SK)	0	0	0
Slovenia (SI)	0	0	0
Spain (ES)	2	0	1
Sweden (SE)	0	0	0
United Kingdom (UK)	0	0	0

Nationality	eu-LISA - status as at 31.12.2018		
	CA FG IV	CA FG III	SNE
Total staff	25	6	9

The inherent difficulty in attracting applicants from some countries is due to a combination of several factors that have an adverse impact on recruiting candidates from countries where such conditions do not occur, such as, for example Sweden, the United Kingdom or Germany (relatively high costs of accommodation for foreigners, long distance from many staff's places of origin and high costs of travel between them, general labour conditions that make it difficult for family members of eu-LISA staff to find a job in the places of assignment and a low correction coefficient in Tallinn).

The issue of the geographical imbalance will continue to be addressed by paying attention to this aspect during future recruitment processes. The main focus of the selection procedure will remain on the merit of the candidates. However, in cases where two candidates achieve the same number of points during the evaluation, nationals of countries that have not reached the recruitment targets will be recommended for recruitment, in order to bring more balance and maintain the diversity already achieved.

E. Schooling

In accordance with the establishing Regulation, the EU Member States that host eu-LISA provide the best possible conditions to ensure the proper functioning of the Agency, including the multilingual, European-oriented schooling. An agreement signed in 2014 with the European Commission for a financial contribution to the European Schools in Tallinn and Strasbourg describes the yearly contribution the Agency should make for the pupils whose parents are eu-LISA staff.

Nineteen children of eu-LISA staff attended the European School in Tallinn and 54 children of eu-LISA staff attended the European School in Strasbourg in 2018.

In both locations, there are also other education options, including those 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.

In order to assist staff whose children are under the age of four and therefore cannot attend the European Schools, in 2014 eu-LISA introduced a nursery allowance for the reimbursement of childcare costs at kindergartens or nurseries, which signed service contracts with eu-LISA. This initiative will continue in the future as it has had a positive impact on job offers being accepted, especially in Tallinn, where finding this type of assistance for working mothers is relatively difficult. The number of staff members benefitting from this service has decreased as some children have already reached school age. In 2018, thirteen staff members were using nursery services for fifteen children.

Annex V: Buildings

	Name, location and type of building	Other comment
Information to be provided per building	eu-LISA, Vesilennuki 5, Tallinn, Estonia	
Surface area (in square metres)	4397.3 m ²	
Of which office space	1161.4 m ²	
Of which non-office space	3235.9 m ²	
Annual rent (in 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 M Construction value of transferred building property: EUR 8.5 M	

	Name, location and type of building	Other comment
Information to be provided per building	18 Rue de la Faisanderie 67100 Strasbourg, France	n/a
Surface area (in square metres)	7842 m ²	
Of which office space	2155 m ²	
Of which non-office space	5687 m ²	
Annual rent (in EUR)		On 3 Feb 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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	Name, location and type of building	Other comment
Information to be provided per building:	Austrian Central Federal Back-Up Centre in Sankt Johann im Pongau, Austria	Back-up facility
Surface area (in square metres)	626 m ²	
Of which office space	223 m ²	
Of which non-office space	403 m ²	
Annual rent (in EUR)	EUR 591 328	Operational expenditure
Type and duration of rental contract	Indefinite Operational Agreement with Republic of Austria	
Host country grant or support	N/A	
Present value of the building	Data not available	

	Name, location and type of building	Other comment
Information to be provided per building:	eu-LISA Liaison Office, 20 avenue d'Auderghem, 1040 Brussels. 98 m ² (four offices on second floor)	
Surface area (in square metres)	98 m ²	
Of which office space	98 m ²	
Annual rent (in EUR)	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	

Building project in Strasbourg

This building project, which was initiated in 2014, is in the acceptance phase.

New building project in Strasbourg

After a comprehensive discussion in November 2017, the eu-LISA Management Board acknowledged the need for a further extension of the office space and the data centre expansion at the operational site in Strasbourg.

Detailed information about the new building project in Strasbourg can be found in the Multiannual programme, section 2.1.9 'Facilities and corporate services' and in the Work programme 2020, section 2.3.7 'Extension of the operational premises in Strasbourg to host current and future projects'.

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 were not permanent residents of Estonia before taking up their appointment in the Agency, receive a 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, in order to facilitate setting up their homes 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 social security benefits scheme for officials and other servants of the EU</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, primary and secondary school level.</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 social security benefits scheme for officials and other servants of the EU. 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 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 in Strasbourg, which offers a baccalaureate recognised by all EU Members States, is guaranteed for the children of Agency staff and members of their household, in accordance with Article 4 of the Accreditation and Cooperation Agreement between the Board of Governors of the European Schools and the European School of Strasbourg, signed in Brussels on 24 May 2011.</p>

Annex VII: Evaluations

Ex-Ante evaluations

In November 2017, the Management Board of the Agency adopted an ex-ante evaluation policy and the criteria (including the financial threshold) for the selection of projects for ex-ante evaluation as stated in the Agency's document 2017-173. This document aims to assess the opportunity and feasibility of proposed new projects, in line with the Agency's strategic goals and objectives, and forms part of eu-LISA's planning cycle. It also acts as a quality control mechanism by providing, from an early stage, the means to assess data readiness by identifying gaps and inconsistencies as well as detecting non-compliance with documentation content quality criteria.

The 2018 Ex-ante Evaluation Policy annual review highlighted that the ex-ante evaluation cycle, which spans a two-year period, would benefit from a revised evaluation approach that tailors assessment requirements to the steps of the ex-ante evaluation process. As a result, an optimised two-step approach was implemented from 2019, which comprises an opportunity assessment (step 1) followed by a feasibility assessment (step 2) in the following year.

Following the above-mentioned decision of the Management Board, the following projects, included in PD 2020-2022 have already undergone an ex-ante evaluation:

- 2.2.1.20. Transition to new TESTA network

System performance evaluations

To evaluate and monitor the performance of the systems under eu-LISA management and to support the execution of the requirements under Article 19(1)(f) of Regulation (EU) No 2018/1726 of the European Parliament and of the Council of 14 November 2018 to carry out reports on the technical functioning of the SIS and VIS, the Management Board has approved a standard service level agreement with document 2013-084.

Internal Control Framework (ICF)

Internal control applies to all activities, whether financial or non-financial. It is a process that helps an organisation to achieve its objectives and sustain operational and financial performance, respecting rules and regulations. It supports sound decision making, considering the risks to the achievement of objectives and reducing them to acceptable levels through cost-effective controls. An internal control system allows management to stay focused on the Agency's pursuit of its operational and financial objectives.

A framework of 17 internal control principles, as adopted by the eu-LISA Management Board with its decision 2019-042 of 19 March 2019, is the applied framework for the internal control system at eu-LISA. The ICF is based on standards laid down by the European Commission for its own departments, and has considered the risks associated with the management environment and the nature of eu-LISA's operations. The Management Board decision has confirmed the validity of the framework for the Agency and entrusted the Executive Director with its implementation.

The ICF is designed to provide reasonable assurance regarding the achievement of the objectives set out in Article 30 of eu-LISA's Financial Rules: '(1) effectiveness, efficiency and economy of operations; (2) reliability of reporting; (3) safeguarding of assets and information; (4) prevention, detection, correction and follow-up of fraud and irregularities, and (5) adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments concerned'.

In the first part of the year, the Agency's manager in charge of risk management and internal control will work with managers on an overall assessment of the presence and functioning of all internal control components in

order to provide the necessary assurance to the Executive Director that the controls in place are well designed and are working as intended.

The following table shows eu-LISA's ICF with its five internal control components and 17 principles:

Components	Principles
CONTROL ENVIRONMENT	<ol style="list-style-type: none"> 1. Demonstrates commitment to integrity and ethical values 2. Exercises oversight responsibility 3. Establishes structure, authority and responsibility 4. Demonstrates commitment to competence 5. Enforces accountability
RISK ASSESSMENT	<ol style="list-style-type: none"> 6. Specifies suitable objectives 7. Identifies and analyses risk 8. Assesses fraud risk 9. Identifies and analyses significant change
CONTROL ACTIVITIES	<ol style="list-style-type: none"> 10. Selects and develops control activities 11. Selects and develops general control over technology 12. Deploys through policies and procedures
INFORMATION AND COMMUNICATION	<ol style="list-style-type: none"> 13. Uses relevant information 14. Communicates internally 15. Communicates externally
MONITORING ACTIVITIES	<ol style="list-style-type: none"> 16. Conducts ongoing and/or separate assessments 17. Assesses and communicates deficiencies

Annex VIII: Risks 2020⁸⁶

RISK 1	The measures already taken might not be sufficient to ensure that the sizing of the data centre capacity will enable the Agency to host future systems
RISK 2	Threat of significant increase in cost of communication infrastructure
RISK 3	Potential temporary loss of some external support functions due to transition to a new framework contract
RISK 4	Breach of confidentiality: accidental public exposure of sensitive procurement information
RISK 5	Agency's incapacity to marry future-oriented work and current system maintenance work with the structures and procedures already in place (learning, on-boarding etc)
RISK 6	Outsourcing of Corporate IT

Risk ⁸⁷	Response and action plan	Risk owner
RISK 1	<p>Mitigate</p> <p><u>Action plan:</u></p> <ol style="list-style-type: none"> The future data centre needs of the Agency will be accommodated via the construction of Data Centre 2 in Strasbourg together with additional administrative office facilities after 2020. In order to provide the required DC capacity to host additional platforms, in the interim, whilst DC2 is constructed and made operational, it is necessary to extend the existing DC capacity using a flexible/modular approach. To this end the CSI contractor has been tasked with a two-phase approach. Firstly a short feasibility study on the various modular options will be executed, the deliverable of which will determine the second phase – procurement and deployment of the solution; The extended capacity of DC1 is expected to be available in Q4 2019, with the feasibility study delivered by end of March 2019. Once in place, the extended footprint will allow DC1 to be more efficiently organised to facilitate the anticipated additional core business system needs for 2019 and 2020. 	<p>Head of Operations and Infrastructure Unit</p> <p>Head of Corporate Services Department</p>
RISK 2	<p>Mitigate</p> <p><u>Action plan:</u></p> <ol style="list-style-type: none"> Collaborate closely with DG DIGIT in preparing the call for tender for the successor of TESTA-ng (Future pan-European Network); Participate in the negotiations of the framework contract for the extension of TESTA-ng II services, which should be led by DG DIGIT and make sure that known eu-LISA needs are covered; 	<p>Head of Operations and Infrastructure Unit</p>

⁸⁶ Resulting from the Risk Activities (Risk Collection and Assessment, Annual Workshop) undertaken in Q4 2018.

⁸⁷ The ranking of risks follows the outcome of the 2018 risk assessment efforts.

	<ol style="list-style-type: none"> 3. Forecast increased costs for the continuous delivery of VIS and SISII services and integrate them in 2020 and subsequent annual budgets; 4. Sign and implement contracts for the VIS network upgrade to cover EES needs before the end (30/06/2020) of the extended TESTA-ng II FwC; 5. Investigate fall-back options allowing reduction of eu-LISA's dependency on T-systems (own eu-LISA TAPs, SD-WAN, several providers) in line with UWAN study results expected end of June 2019. 	
RISK 3	<p>Mitigate</p> <p><u>Action plan</u></p> <ol style="list-style-type: none"> 1. Set up sunset clauses to allow the possibility of extending current specific contracts (SCs) after the end of the respective FWC lot; 2. Inform contractors and external staff accordingly; 3. Extend SCs as appropriate; 4. Finalise technical specifications for the new FWC: Operational Initiators. 	Head of Finances and Procurement Unit
RISK 4	<p>Mitigate</p> <p><u>Action plan</u></p> <p>Consolidating and making systematic use of the measures already deployed for the EES tender, in the following areas:</p> <ol style="list-style-type: none"> 1. Creation of specific intranet sites for each major procurement procedure in order to act as document repository, task management and tracking, and collaborative editing of documents, with specific access control based on the need-to-know and least-privileged principles. Audit logging and reporting to be enabled for all access to information. This design should be documented as a procedure; 2. Ensuring applicable contractual arrangements are properly in place with regards to confidentiality; 3. Implementation of cyber hygiene practices in the handling of tender information, e.g. only sending tender information as links to the SharePoint site and not as attachments by email; ensuring that attachments are encrypted if documents have to be sent; 4. A specific secure room to be allocated for the storage and consultation of physical tendering information and documents (already done). Ideally evaluation meetings could be held there too; 5. Specific arrangements to be ensured for the delivery of tender information to the site (already done); 6. Assess the feasibility of implementing information rights management solutions to technically protect tendering information; 7. Review organisational set-up of procurement sector with particular regard to rationalising and improving effectiveness of staff location. 	<p>Head of Security Unit</p> <p>Head of Finances and Procurement Unit</p>

<p>RISK 5</p>	<p>Mitigate</p> <p><u>Action plan:</u></p> <p>Organisation and design of transformation plan, taking into account the above-described risk, with the following actions identified:</p> <ol style="list-style-type: none"> 1. Defining new operating model for the agency; 2. Developing on-boarding programmes (according to transformation project plan); 3. Developing skills & capabilities (according to transformation project plan, analyse, design, implement). 	<p>Head of Human Resources Unit</p>
<p>RISK 6</p>	<p>Mitigate</p> <p><u>Action plan</u></p> <ol style="list-style-type: none"> 1. Contractor to operate mainly in testing (and pre-production, when established) environment. <ol style="list-style-type: none"> a. Administrative rights to be given to the contractor only for limited period of time, upon completion of regular change procedure (via OCAB). b. Upon completion of the change, eu-LISA dedicated staff from the ICT sector with administrative rights (i.e. Senior System Engineer, Network Engineer, Application Engineer) proceed with relevant audit to confirm correctness of implementation of the change; 2. To complete recruitment of the above-mentioned staff as soon as possible; 3. Reinforce the Corporate IT sector with additional CA, who can play a senior administrative role in our corporate IT environment. 	<p>Head of Corporate Services Department</p>

Annex IX: Procurement plan 2020

The following table includes the tenders planned for the year in direct support of the operational activities included in the single 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 (FwC) awarded by the Agency, the European Commission or other EU institutions.

No	PD reference	Title of the annual activity	Scope	Procurement procedure	Indicative timeframe of procurement launch	Project cost estimate (EUR)	Contract type	Duration of contract (years)	Comments
1	2.2.1.5	Eurodac Recast implementation (continuation from 2019)	Operational activities	Negotiated without contract notice	Conditional on the adoption of legislation	To be confirmed (tbc)	FwC	n/a	The budget ceiling of the existing contract will need to be increased to cover recast (Negotiated procedure)
2	2.2.1.22	Dublin Automated System	Operational activities	Open	Conditional on the adoption of legislation	tbc	FwC	4	
3	2.2.1.23	sBMS under EES implementation (continuation from 2019)	Operational activities	Restricted	Q1 2020	301 M	FwC	4+2	Procurement launched in 2019
4	2.2.1.16	Integration of the Single Integrated Monitoring solution with the event management process, covering all systems in operation	Operational activities	Restricted	Q4 2020	450 k	FwC	4	Could be part of Transversal Procurement, not confirmed as of October 2019.

5	2.2.1.25	ECRIS-TCN implementation	Operational activities	Restricted	Q2 2020	3.77 M	FwC	4	Could be part of Transversal Procurement, not confirmed as of October 2019
6	2.2.1.24 and multiple	Transversal engineering framework	Operational activities	Open/Restricted	2020	Lot 1 - 175 M Lot 2 - 175 M Lot 3 - 440 M Lot 4 - 180 M	FwC	4+1+1	4 separate lots. Design, quality, development, infrastructure, platforms and testing services. The scope comprises ETIAS development and additional system needs.
7	multiple	Transversal operations framework	Operational activities	Open/Restricted	2020	tbc	FwC	4+1+1	Daily operations and corrective maintenance
8	2.3.7	Strasbourg Interim Office	Procurement related to Corporate Services activities	Negotiated without contract notice	Q1 2020	5.4 M	Lease	9	

Annex X: Organisation chart 2018-2020

In 2018, the following changes were made to the organisational structure of eu-LISA, affecting the headcount:

- The Resources and Administration Department changed its name to the Corporate Services Department and the Corporate Services Sector became a unit in the Corporate Services Department;
- The Internal Auditor's name changed to the Head of Internal Audit Capability;
- The Human Resources and Training Unit changed its name to the Human Resources Unit;
- The Liaison Office started to report directly to the ED;
- The post of Legal Officer was transferred from the General Coordination Unit to the Corporate Services Department.

The organisational chart (Figure 1) shows the situation on 31 December 2018. For each organisational entity of eu-LISA it presents the number of the posts in brackets () and the number of vacant posts in square brackets [].

In 2019, eu-LISA changed its organisational structure in order to adapt to its enlarged mandate and the scope of its new responsibilities, as well as to accommodate the additional staff it was granted in 2018-2020.

As a result of the re-organisation exercise, a new department (Corporate Governance Department) was created, consisting of two units: the Executive Support and Stakeholder Relations Unit and the Governance and Capabilities Unit. Three new units were created in the Operations Department and the existing units were renamed to reflect their new functions.

The organisational chart (Figure 2) shows the situation on 20 October 2019. A table below the organigram shows the number of the posts that have been filled to date and the number of vacant posts in each organisational entity of eu-LISA.

Figure 1: eu-LISA’s organisational structure and headcount on 31 December 2018.

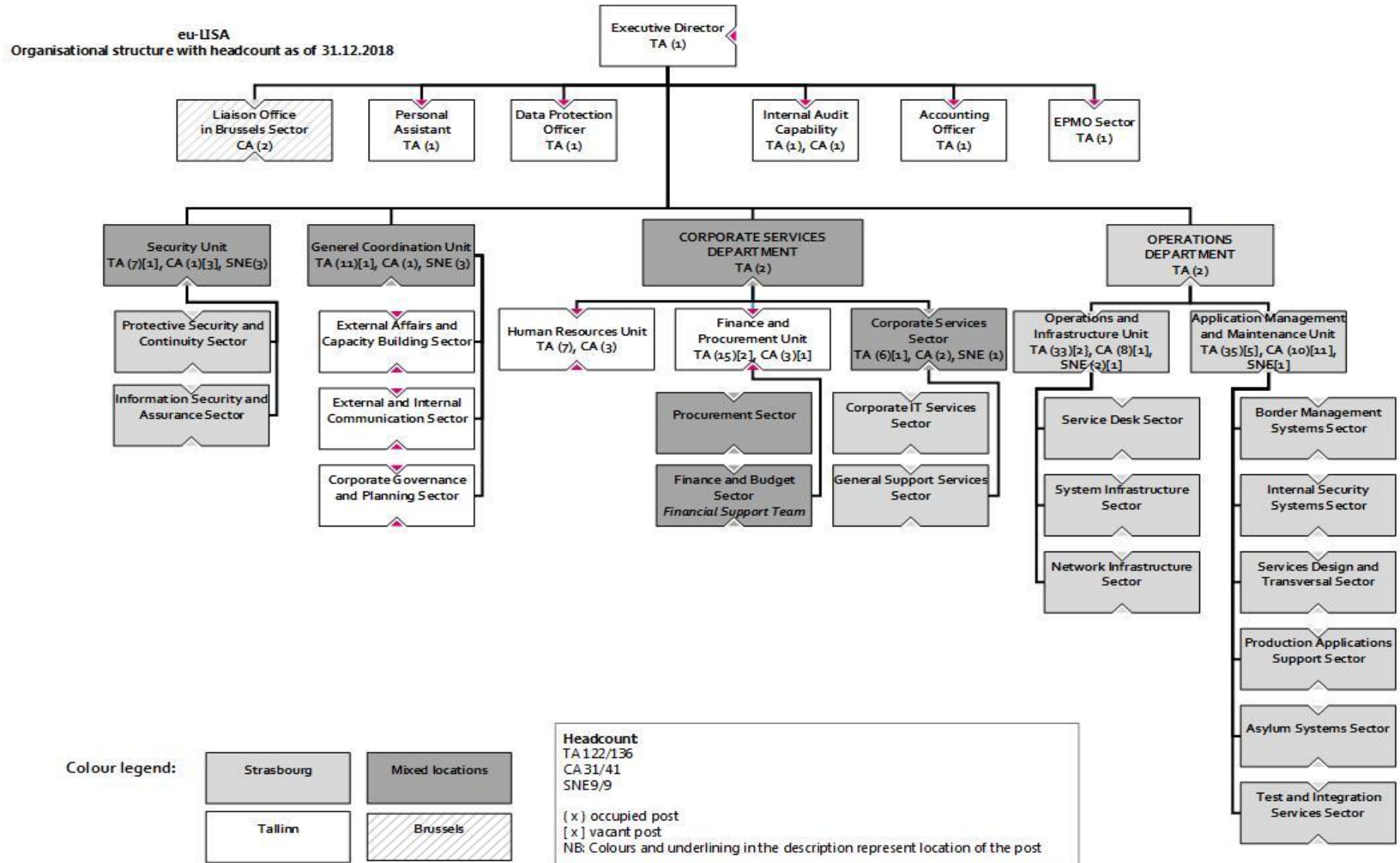
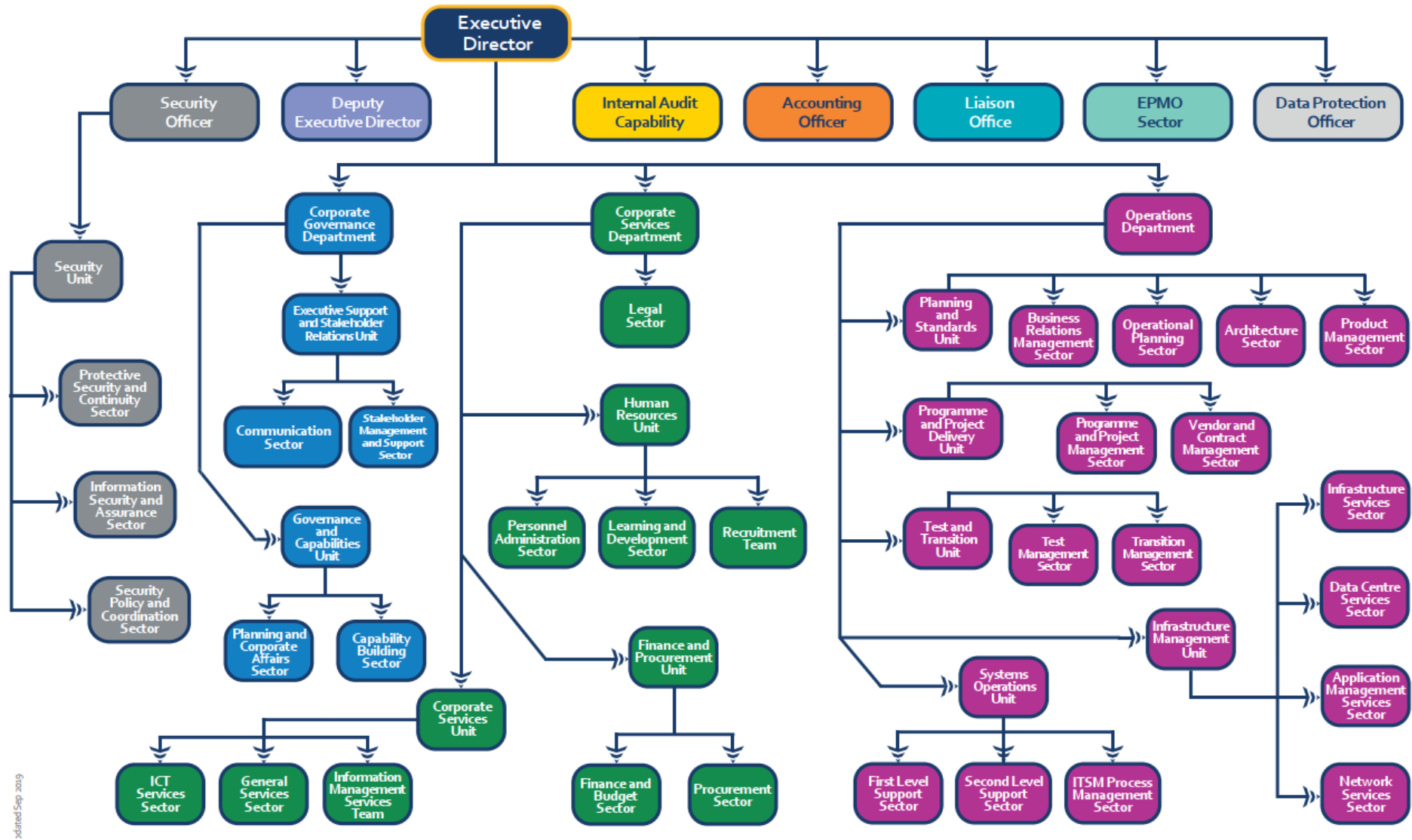


Figure 2 :eu-LISA's organisational structure on 1 September 2019.



updated Sep 2019

Table 24 – Headcount according to the organisational structure of 1 September, with the status on 20 October 2019.

Department	Unit	Number of posts						Total
		TA		CA		SNE		
		Occupied ⁸⁸	Vacant	Occupied	Vacant	Occupied	Vacant	
ED	ED	7	2	6	1	1	0	17
N/A	Security	9	1	7	0	2	0	19
Corporate Governance Department	N/A	0	1	0	0	0	0	1
Corporate Governance Department	Executive Support and Stakeholder Relations Unit	7	0	4	0	0	0	11
Corporate Governance Department	Governance and Capabilities Unit	5	2	2	0	3	0	12
Corporate Services Department	N/A	2	1	1	0	0	0	4
Corporate Services Department	Human Resources Unit	7	1	7	0	0	0	15
Corporate Services Department	Finance and Procurement Unit	18	2	6	2	0	0	28
Corporate Services Department	Corporate Services Unit	9	0	8	0	1	0	18
Operations Department	N/A	2	1	0	0	0	0	3
Operations Department	Planning and Standards Unit	20	4	4	2	1	0	31
Operations Department	Programme and Project Delivery Unit	12	1	6	6	1	0	26
Operations Department	Test and Transition Unit	11	0	2	5	0	0	18
Operations Department	Infrastructure Management Unit	18	5	4	8	1	1	37
Operations Department	Systems Operations Unit	24	0	7	0	0	0	31
Total		151	21	64	24	10	1	271

⁸⁸ Occupied posts in this table include job offers made.

Annex XI: Standard SLA

In 2013, the eu-LISA Management Board 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, as part of 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**.