EUROPEAN UNION AGENCY FOR THE OPERATIONAL MANAGEMENT OF LARGE-SCALE
IT SYSTEMS IN THE AREA OF FREEDOM, SECURITY AND JUSTICE

INTERIM REPORT

EU-LISA 2021 INTERIM REPORT

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⊂U-LISA

Contents

Abbreviations and acronyms

AFIS	Automated Fingerprint Identification System
AG	Advisory Group
ARES	Advanced Records System
BCU	Backup Central Unit (backup centre in St Johann im Pongau)
BMS	Biometric Matching System
CA	Contract agent
CAAR	Consolidated Annual Activity Report
CBS	Core business systems
CIR	Common Identity Repository
CRRS	Central Repository for Reporting and Statistics
CSI	Common shared infrastructure
CU	Central Unit
DCIM	Data centre infrastructure management
DG DIGIT	Directorate-General for Informatics
DG JUST	Directorate-General for Justice and Consumers
DG HOME	Directorate-General for Migration and Home Affairs
DPIA	Data Protection Impact Assessment
DPO	Data Protection Officer
DubliNet	Communication network for Eurodac
ECRIS	European Criminal Records Information System
ED	Executive Director of eu-LISA
EDPS	European Data Protection Supervisor
EES	Entry/Exit System
ENISA	European Union Agency for Cybersecurity
EPMO	Enterprise Project Management Office
ESP	European Search Portal
ETIAS	European Travel Information and Authorisation System
EU	European Union
eu-LISA	European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice
Eurodac	European Asylum Dactyloscopy Database
Europol	European Union Agency for Law Enforcement Cooperation
Frontex	European Border and Coast Guard Agency
HR	Human resources
IAC	Internal Audit Capability
ICD	Interface control document
ICT	Information and communication technology

IT	Information technology
ITSM	IT service management
JHA	Justice and Home Affairs
KPI	Key performance indicator
MB	Management Board
MID	Multiple-Identity Detector
MS	Member States
NUI	National uniform interface
OJ	*Official Journal of the European Union*
sBMS	Shared Biometric Matching Service
SIRENE	Supplementary Information Request at the National Entries
SIS	Schengen Information System
SIS II	Second-generation Schengen Information System
SLA	Service-level agreement
SNE	Seconded national expert
SPD	Single Programming Document
TA	Temporary agent
TAP	Turnkey access point
TCN	Third-country national
TESTA-ng	Trans European Services for Telematics between Administrations – new generation
VIS	Visa Information System

Executive summary

The 2021 Interim Report of the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA) presents the progress made by the Agency between January and June 2021 in the implementation of the activities listed in its Annual Work Programme for 2021, as included in the Single Programming Document 2021– 2023. Under eu-LISA's establishing regulation, the Agency's Management Board must adopt the Interim Report by the end of August of each year, after consultations with relevant Advisory Groups. Following adoption, the report is submitted to the European Parliament, the Council and the Commission.

The Agency's Annual Work Programme for 2021, part of the Single Programming Document 2021-2023, has been built around the following operational priorities for eu-LISA:

- Ensuring the uninterrupted availability of the systems entrusted to the Agency,

- Implementing the new legal initiatives, including systems' recasts,

- Implementing the second extension of the technical site in Strasbourg.

Despite the restrictions and difficulties arising from the ongoing COVID-19 pandemic, the Agency had progressed well on the implementation of the priorities outlined above by the end of the reporting period. This process entailed constant, close, transparent and constructive collaboration with the eu-LISA Management Board, the Programme Management Boards and Advisory Groups, in partnership with the Member States, as well as other EU institutions and Agencies.

A number of COVID-19-related access and travel restrictions continued to limit the presence of staff and contractors at eu-LISA's technical sites in Strasbourg and Sankt Johann im Pongau. Despite these difficulties, the Agency managed to maintain stable operations at both sites throughout the reporting period. There were no interruptions nor major incident affecting the availability of the **Schengen Information System (SIS), the Visa Information System (VIS)** and the **European Asylum Dactyloscopy Database (Eurodac)** to the Member States. The performance of the systems was in compliance with their respective service-level agreements. Additionally, eu-LISA continued working on the development and deployment of the systems' evolutions.

During the reporting period, the **SIS Recast** project progressed, but was affected by some delays that were out of the control of the Agency (i.e. late delivery of some hardware equipment).. As a major achievement, the **integration of Ireland to the SIS** was completed on 15 March. On 1 January 2021, at midnight, the Agency also seamlessly completed the **disconnection of the United Kingdom from the SIS and Eurodac**. Subsequently, the Agency launched a redesign project of Eurodac to ensure the proper functioning of the system's components in the coming years.

With regard to the **VIS**, the Agency focused on preparations for connecting the system with the developing interoperability architecture, i.e. preparing its interconnection with the EES and the ETIAS as well as using the sBMS. On 18 June, the Commission adopted a decision for Bulgaria and Romania to gain read-only access to VIS in July 2021.

Several development activities planned for 2021 were affected in various ways, but overall, the Agency remained committed to proceeding with the scheduled implementation of the new systems entrusted to eu-LISA: the Entry/Exit System (EES), the European Travel Information and Authorisation System (ETIAS), the centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (ECRIS-TCN) and the components of the framework for interoperability of the systems.

The development of the **EES** advanced at a fast pace and reached several significant milestones during the reporting period: the publication of the final major version of the interface control document (ICD version 6.0) in February; the start of the testing phase in March; and the completion of the installation of the national uniform interface (NUI). The first release of the Shared Biometric Matching Service (sBMS) was also delivered on 15 April. However, work on the development of the central EES system suffered delays due to the inability of the contractor to deliver according the agreed schedule. In addition, a number of Member States faced substantial challenges with the implementation of the national activities related to EES implementation.

In January, the Agency awarded the contract for the development services of the **ETIAS**, and the system's interface control document was shared with the Member States at the end of May. The first version of the ETIAS data protection impact assessment was completed in June.

During the reporting period, eu-LISA started the implementation phase of all **interoperability components**, following the completion of the procurement phase, and by April, the eu-LISA Management Board had adopted the technical specifications for the Central Repository for Reporting and Statistics (CRRS), the European Search Portal (ESP), the Common Identity Repository (CIR), and the Multiple-Identity Detector (MID).

The preparation phase of the **ECRIS-TCN** development was completed in February, with the finalisation of the tender technical specifications. In March, eu-LISA launched the procurement for the development services.

Finally, the Agency progressed with the second extension of its technical site in Strasbourg. In May, eu-LISA took a decision on the procurement options for the building design contest, and provided a revised financial envelope estimate and building programme. At the same time, the Agency also advanced the preparations of its additional temporary offices in the Illkirch district, near the Strasbourg technical site, rented by the Agency to provide the necessary workplaces until the second extension is completed.

Introduction

This interim report presents the progress made by eu-LISA from January to June 2021 in the implementation of the activities listed in the Agency's 2021 Annual Work Programme, as included in its Single Programming Document for the 2021–2023 period.

- **Chapter 1** describes the main achievements until 30 June 2021 in the implementation of the Annual Work Programme of the Agency.

- **Chapter 2** outlines the major corporate risks for the reporting period.

- **Section 3** lists the performance indicator status and the achievements during the reporting period, for all activities programmed by the Agency in its 2021 Annual Work Programme.

- **Section 4** provides an overview of budget implementation for the first half of 2021.

Background information

The European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA) was established 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 at the EU level for the operational management of existing and future large-scale IT systems in the area of freedom, security and justice. The current establishing Regulation[1] entered into force on 11 December 2018, repealing the previous regulation and expanding the Agency's mandate. This new mandate strengthens the Agency's capacity to improve, design and develop information systems for European security, border management and migration, while also broadening its scope in the areas of research, innovation, testing and on the possibility to support the development of pilot projects and proofs of concept.

Currently, eu-LISA manages the Schengen Information System (SIS),[2] the Visa Information System (VIS)[3] and the European Asylum Dactyloscopy Database (Eurodac)[4] — the large-scale IT systems that serve as the essential cornerstones for the smooth functioning of the Schengen area. At the EU's external borders, these systems are critical to ensure the efficiency of border management and the implementation of the EU's common asylum, migration and visa policies. Within the Schengen area, the continuous availability of these systems is integral in guaranteeing the freedom of movement of EU citizens, while also ensuring their security.

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 overall interoperability of all the systems entrusted to the Agency.[8]

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1 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, OJ L 295, 21.11.2018, p. 99–137.
2 Regulation (EU) 2018/1860, Regulation (EU) 2018/1861 and Regulation (EU) 2018/1862, OJ L 312, 7.12.2018, p. 1-106; 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.
3 Regulation (EC) No 767/2008, OJ L 218, 13.8.2008, p. 60–81.
4 Regulation (EU) No 604/2013, OJ L 180, 29.6.2013, p. 31-59.
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.

Throughout all operations, the Agency ensures a high level of data protection and the appropriate level of data and physical security, in accordance with applicable rules and provisions.

Location

The headquarters of the Agency are in Tallinn, Estonia, while the operational management of the systems under its purview is carried out in Strasbourg, France. In addition, eu-LISA also has a technical backup site in St Johann im Pongau, Austria, and a liaison office in Brussels, Belgium.

Legal background

Article 24(3)(f) of Regulation (EU) No 2018/1726 requires the Executive Director to prepare the interim report on the progress of the implementation of the planned activities for the current year and to submit it, after consultation with the Advisory Groups, to the Management Board for adoption by the end of August of each year. Article 19(1)(s) of the same Regulation requires the Management Board to adopt the interim report by the end of August of each year and to submit it to the European Parliament, to the Council and to the Commission.

The Agency's Strategic Goals

In its long-term strategy for the 2018-2022 period, eu-LISA has identified four strategic goals that reflect its mandate:

- **Strategic Goal 1**: to continue to grow as a contributor to and implementing partner for the relevant policies in the EU.

- **Strategic Goal 2**: to maintain and extend the role of the Agency as an EU information and communication technology (ICT) centre of excellence and service provider.

- **Strategic Goal 3**: to continue growing as the principal EU ICT technology hub.

- **Strategic Goal 4**: to continue to develop an efficient and agile organisation in compliance with the EU regulatory framework.

Operational priorities of the 2021 Annual Work Programme

The Annual Work Programme of eu-LISA for 2021 has been built around two sets of priorities:

External priorities

- Ensuring the stable operation of the systems entrusted to the Agency under its mandate.

- Implementing the new legal initiatives, including recasts.

- Implementing the second extension of the technical site in Strasbourg.

Internal priorities

- Consolidation of the Agency after a period of change, growth and transformation, with a focus on capabilities development.

- Further strengthening the Agency's internal governance and controls, including quality management.

1. Major developments during the reporting period

This chapter provides an overview of the progress of the Agency during the first half of 2021 with implementation of its Annual Work Programme. The detailed status of implementation of all activities included in the Annual Work Programme 2021 can be found in the chapter 3.

1.1. Ensuring the stable operation of the systems entrusted to the Agency under its mandate

Despite the continued impact of the COVID-19 pandemic during the first half of 2021, eu-LISA was successful in maintaining the availability of all systems (SIS, VIS/BMS, Eurodac), and to keep its two technical sites, in France and in Austria, continuously operational. However, circumstances related to the pandemic continued to affect the development and deployment of new releases, primarily due to disruptions of supply chains, and to restrictions on access and travel, which limited the possibilities for both eu-LISA staff and contractors to work on the Agency's premises.

1.1.1. SIS

a. Operations

During the reporting period, the overall performance of the SIS central system remained within the agreed service-level agreement (SLA), with only some minor incidents affecting the system's availability. On 6 June, the central system became partially unavailable to one Member State (Slovenia), blocking approximately 200 transactions. To resolve this situation, the Agency applied the escalation procedure, and by the end of 8 June, the central system was available again and all the blocked messages were processed.

The performance of regular data consistency checks (DCCs) has improved significantly, and they are increasingly successful and stable. Although the total duration of DCCs is on the rise, due to the expanding size of the database, the Agency is already working on necessary measures to mitigate this effect.

The SIS Automated Fingerprint Identification System (AFIS), allowing for the identification of persons of interest from their fingerprints, was also successfully operated and maintained, with no major incidents reported. To date, almost all Member States have joined and have been actively using the AFIS, resulting in a growing number of queries.

For eu-LISA, one of the major achievements of this period was integrating Ireland to the SIS. Following the preparations in 2020, the process of entry into operation started on 4 January and was successfully completed on 15 March. Ireland also conducted its first data consistency check in May. In addition, Ireland also requested to be connected to the AFIS, which was completed on 28 July with the activation of the fingerprint search function.

The disconnection of the UK from the SIS was seamlessly completed on 31 December 2020, just before BREXIT which took place on 1 January 2021 at 00.00. As planned, the UK maintained its connection to SIRENE[9] until 31 March, in order to be able to solve the cases remaining from 2020. By the end of April, all UK alerts were deleted, effectively closing the process.

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9 Each EU country operating SIS has set up a national SIRENE Bureau that is responsible for any supplementary information exchange and coordination of activities connected to SIS alerts. More on: https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/schengen-information-system/sirene-cooperation_en

In March, the eu-LISA Management Board adopted the SIS II 2020 statistics report[10] and the Agency published it on its website together with a factsheet.[11] In July, the *Official Journal of the European Union* published the updated list of competent authorities, who are authorised to make direct searches in SIS II, together with the list of national N.SIS II Offices and SIRENE Bureaux.[12]

b. System evolution

- **AFIS phase 2:** During the reporting period, the Agency launched the testing of the first 2021 release and the development of the second release. In addition, eu-LISA completed the design of the migration from AFIS phase 1 to phase 2. The project faced a delay of four weeks compared to its original schedule due to late delivery of hardware necessary for the system.

- **Increase of query capacity:** The entry into operation of the new search engine (ElasticSearch) was postponed until the end of the year, due to the COVID-19 pandemic and the outcome of the testing of the 2020 release 1. The Agency successfully completed the capacity (soak) test for the 130 million alerts database, the targeted capacity of the system.

- **Data consistency checks**: The project addressing the improvements to data consistency checks progressed according to schedule with the completion of the design phase, followed by the start of the testing phase.

- **Renewal of the central SIRENE Mail Relay**: In April, eu-LISA successfully migrated the SIS SIRENE email relay to the Common Shared Infrastructure (CSI). It was the first operational system to be fully migrated to the CSI, making it an important milestone for the Agency.

- **Connection of Europol to SIRENE**: eu-LISA worked with Europol to prepare for the qualification of the system and establishing the connection to the SIRENE Mail Relay, which was effective on 8 March.

1.1.2. **VIS/BMS**

a. Operations

During the reporting period, the overall performance of the VIS central system remained within the agreed service-level agreement (SLA), ensuring continuous availability. There were no significant incidents preventing system availability. Due to COVID-19-related restrictions, the usage of the VIS remained below 20 % of its usual traffic. During the reporting period, two releases were deployed, which included several patches and upgrades to servers and network components.

b. System evolution

- **VIS Recast**: the new regulation on the VIS, pending adoption by the European Parliament as at the end of June 2021, includes a number of functional and technical changes aiming at upgrading the system, e.g. via its interoperability with other systems and databases. To prepare for the future implementation, eu-LISA conducted an impact assessment for the service design of the required developments. By the end of the reporting period, the report was under review. Due to the fact that the new regulation was further delayed, the schedule of its implementation is being reviewed.

- **VIS/BMS migration to sBMS**: The project was launched in 2020 and progressed according to schedule throughout the reporting period.

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10 https://www.eulisa.europa.eu/Publications/Reports/SIS%20II%20-%202020%20Statistics%20-%20report.pdf
11 https://www.eulisa.europa.eu/Publications/Reports/SIS%20II%20-%202020%20Statistics%20-%20factsheet.pdf
12 https://www.eulisa.europa.eu/Publications/Reports/SIS%20II%20-%20List%20of%20competent%20authorities%202020.pdf

- **Implementation of ETIAS consequential amendments for VIS**: The introduction of the Common Identity Repository (CIR) as a mandatory component in the ETIAS consequential amendment requires a significant modification of the VIS legacy architecture (i.e. refactoring), in order to guarantee the VIS-ETIAS interconnection. As a result, new tasks were added to the original schedule for ETIAS implementation, however without negative impact on the date of entry into operation of the system. During the reporting period, the Agency completed the feasibility study for the refactoring, and further on started an the impact assessment.

- **Test environment**: In 2020, responding to the requests of the Member States, the eu-LISA Management Board decided to introduce an update of the VIS/BMS new test environment to increase its availability, reliability and agility for operational support. During the reporting period, eu-LISA engaged in contractual discussions with the VIS/BMS contractor, who submitted an impact assessment report.

- **Integration of new users**: On 18 June, the Commission adopted a decision[13] that in July 2021, Bulgaria and Romania will gain read-only access to the VIS. The system was already prepared to provide this access at the time of the decision.

- **Migration of VIS Mail**: In May, the VIS Mail system was fully migrated to the virtualised environment of the Common Shared Infrastructure (CSI).

1.1.3. Eurodac

a. Operations

During the reporting period, the overall performance of the Eurodac central system remained within the agreed service-level agreement (SLA), with only few events affecting the system availability. The disconnection of the UK from Eurodac was completed on 1 January 2021, resulting in seven hours of unavailability outside of business hours. All UK data were progressively deleted until 12 January. As a result, there was a significant drop in the number of stored records, from 5.85 million by the end of December 2020 to 5.55 million after the deletion was completed. The average daily incoming traffic also decreased due to the same reason.

In addition, eu-LISA worked closely with several Member States to support them in the renewal of their Eurodac certificates, an activity all Member States must perform on a regular basis. The installation of new certificates occurred in several batches between March and May 2021. On 18 March, an issue with a certificate renewal affected some functionalities of the central system, resulting in partial unavailability during one day. To restore all functionalities, the Agency shut down the central system during 1 hour on 19 March.

Following the entry into force of the protocol concluded between the European Union and Denmark,[14] the Agency opened to Denmark the functionality to perform law enforcement searches (category 4) in Eurodac. This process was completed on 7 April, resulting in a 30-minute unavailability of the central system.

eu-LISA continued to support the Member States with the integration to the Agency's IT service management (ITSM) tool. Belgium completed the connection in February, leaving only three Member States yet to be connected.

In March, the Management Board adopted the Eurodac statistics report for 2020[15] and the Agency published it on its website, together with a factsheet.[16] In May, eu LISA published the annual updated list of designated authorities[17] that have access to data recorded in the Eurodac central system pursuant to Article 27(2) of the Regulation (EU) No 603/2013, for the purpose laid down in Article 1(1) of the same regulation.

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13 Commission Implementing Decision (EU) 2021/995 of 18 June 2021 determining the date on which Council Decision (EU) 2017/1908 on the putting into effect of certain provisions of the Schengen acquis relating to the Visa Information System in the Republic of Bulgaria and Romania shall start to apply, OJ L 219, 21.6.2021, p. 37−38
14 Council Decision (EU) 2019/836, OJ L 138, 24.5.2019, p. 3−4
15 https://www.eulisa.europa.eu/Publications/Reports/Eurodac%20-%202020%20Statistics%20-%20Report.pdf
16 https://www.eulisa.europa.eu/Publications/Reports/Eurodac%20-%202020%20Statistics%20-%20Factsheet.pdf
17 https://www.eulisa.europa.eu/Publications/Reports/2021%20Eurodac%20updated%20list%20of%20authorities%20-%20asylum.pdf

b. Dublin electronic communications network (DubliNet) operations

DubliNet is the secure electronic network for the exchange of data between the national authorities dealing with asylum applications. During the reporting period, the maintenance of DubliNet was within the agreed service-level agreement (SLA).

c. System evolution

- During the first quarter, eu-LISA launched the Eurodac redesign project as part of the system maintenance that is needed to ensure the continuation of support for the AFIS and Oracle components of the system. The project progressed in its initial phase, and the system's detailed technical specifications were under elaboration by the end of the reporting period.

- During the reporting period, eu-LISA continued to work on the release of operating systems' upgrade. Owing to restrictions related to the COVID-19 pandemic, the deployment of the release was further postponed to July 2021.

- The Agency completed its project on improving business and system checks, both in the production and test environments. As a result, eu-LISA will be more proactive in responding to incidents in the future.

1.1.4. Infrastructure and networks

a. Operational management of the communication infrastructure

Throughout the reporting period, the SIS and VIS communication infrastructures, using the TESTA-ng[18] services framework contract, performed in accordance with the legal and operational requirements, with an average availability higher than 99.999 %.

b. Evolution of the communication infrastructure

In the first half of 2021, the communication infrastructures of SIS and VIS were upgraded, to ensure that the bandwidth of the respective networks would be able to accommodate planned systems evolutions.

- **Upgrade of the SIS communication infrastructure**: To accommodate new system functionalities (e.g. AFIS), eu-LISA upgraded the SIS network Turnkey Access Points (TAP) to 100 Mbps. All necessary preparations at the various locations were completed, allowing the Agency to proceed with the rollout and activation of the new TAPs in the second half of the year.

- **SIS second encryption layer evolution**: The Agency completed the hardware replacement of the SIS second encryption layer, needed to deliver higher performance, ensuring the necessary bandwidth on the SIS network for the AFIS.

- **Upgrade of the VIS communication infrastructure**: The Agency completed the upgrade of all TAPs in all Member States, which are required to support the increased bandwidth for the EES and the ETIAS. As a result, all TAPs are now ready for the deployment and activation of the National Uniform Interface (NUI).

c. Common shared infrastructure (CSI)

Throughout the reporting period, eu-LISA carried out all operations necessary for the maintenance of the central shared infrastructure. As a result, the CSI remained fully available and all issues were resolved within the SLA targets.

The Agency is gradually implementing the CSI programme for all the large-scale IT systems under its purview, with a view to creating a scalable, agile and standardised infrastructure. Once all systems and components are hosted on the CSI, it will serve as the technical foundation for systems interoperability, while also generating efficiency gains in terms of administration and maintenance of all systems.

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18 The TESTA network service, operated by the European Commission, provides a European backbone network for data exchange between a wide variety of public administrations.

In addition, eu-LISA completed the migration of the SIRENE Mail and VIS Mail to the CSI, which were key milestones, as they are the first customer-facing systems to be migrated onto the CSI. The Agency also completed the migration of the SIS storage (for the pre-production environment), together with the VIS backup and archive hardware. In February, eu-LISA also began the implementation of a central backup system.

d. Data centres

During the reporting period, eu-LISA took all necessary measures to ensure that the data centres located at both technical sites remain continuously operational, with no downtime. The operations of the data centres continued to be particularly complex, because of COVID-19-related access and travel restrictions that considerably limited the availability of staff and contractors in the facilities.

In addition, the 'data centre as a service' approach continued to be developed and implemented to support projects and operations. This approach helps the Agency centralise monitoring, operational management and capacity planning of the infrastructure used by the systems entrusted to the Agency. To support this, the implementation of a data centre infrastructure management (DCIM) tool progressed to application in field work.

The Agency also made progress on the preparations for its future modular data centre, which will provide an additional buffer capacity needed for the future updates of the main data centre layout. The modular data centre will also provide a 25 % increase of space for hosting the large-scale IT systems entrusted to the Agency.

At the backup central unit (BCU) in St Johann im Pongau, eu-LISA proceeded with the necessary preparations for ensuring the compliance of preproduction and production environments with the CSI standards. The technical annex to the existing site agreement was also updated to accommodate the additional space for the production environments made available to the Agency.

1.2. Implementing the new legal initiatives, including recasts

1.2.1. EES

a. Development of the central system

During the reporting period, the development of the central system advanced at a fast pace. At the beginning of the year, eu-LISA and the Member States worked on the adaptation of the planning, following the decision of the JHA Council of 14 December 2020 to move the date of entry into operation of the system to May 2022. On 15 February, the project team delivered with a one month delay the final version of the system's interface control document (ICD v6.0). The corresponding update to the central simulator was delivered on 5 March. An updated version of the ICD was released on 3 June, containing only a few corrections (version 6.1). A first stable release of the central system has been delivered. The development of the Biometric Matching System (BMS) and changes in the Visa Information System (VIS) stemming from the EES Regulation have been finalised.

In February, the Agency completed the installation and configuration of the testing environment. Then, in March, the development project reached a major milestone with the start of the first testing phase (called pre-compliance testing), in line with the updated schedule adopted by the Management Board in June 2020. The pre-compliance test campaign is a prerequisite for the official compliance test planned to start in July 2021. The exercise started with basic connectivity tests, and in April, the Member States were able to begin application testing with the latest versions of the software. After few months of testing, 24 Member States had passed the basic networking tests, and 9 had taken part in application testing. eu-LISA took extra measures to support the Member States in system testing. For example, on 23 December 2020, the Agency signed a contract aimed at providing support to the Member States in testing activities, covering the period from January 2021 until the entry into operation of the system. On 8 June, the Agency organised the first of its weekly webinars for supporting Member States with testing. In addition, the Agency has prepared, together with the Member States, the schedule for upcoming tests (pre-compliance and compliance tests).

The Agency has also launched the development of the Workflow Engine software, which will centrally manage the business processes. In May, technical workshops were organised for all Member States, raising awareness and providing useful feedback, and resulting in clear roadmap. On 2 June, the Commission approved a workflow engine related proposal put forward by the Member States to cover additional operations.

Despite the progress made in the first half of the year, at the beginning of June the contractor responsible for development of EES informed the Agency that they could not deliver it in accordance with the originally agreed schedule. At the end of June, a revised planning has been agreed with the contractor and consequently endorsed by the eu-LISA Management Board. It moved the delivery of the final release of EES to mid-October. While the revised planning still kept the planned date for entry into operation of the system in May 2022, it increased the pressure on eu-LISA and the Member States due to the reduced testing phases and availability of minimal contingency to absorb further delays.

b. Development of the national uniform interface (NUI)

The delivery and installation of the national uniform interface (NUI) has been completed. The installation of the NUIs was delayed, mostly owing to COVID-19-related disruptions and readiness issues at the data centres in the Member States. By the end of May, all NUIs had been installed.

Following the installation, the Member States started testing NUI to NUI connectivity, which is necessary to ensure the system's business continuity. The NUI to NUI connectivity tests have been completed for 24 Member States, with six more still pending.

c. Development of the sBMS

The development of the sBMS (shared Biometric Matching Service) reached an important milestone on 15 April, with the delivery of the first release. However, this first release supported only the EES, while the second release, supporting VIS, was delivered on 25 June. As for the infrastructure elements of the system, the hardware and software installations were ongoing as at the end of the reporting period.

In addition, eu-LISA and the Member States continued the testing campaign of the User Software Kit (USK), focusing on data quality thresholds. Currently, the Agency has entered into discussions with Member States regarding the possibility of using real biometric data to test sBMS accuracy for the EES. To that end, eu-LISA has also launched a consultation with the European Data Protection Supervisor (EDPS).

d. The EES-ETIAS web service for third-country nationals and carriers[19]

The web service will enable third-country nationals to interact with the EES and ETIAS, for example to verify the status of their authorised stay in the EU. The web service will also be used by carriers to verify whether a traveller is in possession of a valid travel authorisation or visa.

During the reporting period, eu-LISA continued discussions with the Commission and Frontex in preparation of the approval of the Implementing Regulation for Carriers, which will affect the way the carriers will interact with the system. Preparations continued for the procurement of internet connection lines, as well as tools and services to support carriers' registration and provide subsequent technical support.

In April, the Working Group for Carriers convened for a meeting, including representatives from eu-LISA, the Commission, and Frontex, to discuss various technical and organisational aspects, as well as the schedule of implementation.

On 1 June, the Agency accepted the interface control document for carriers that defines the interfaces for the communication between the EES and the systems operated by carriers. In addition, at the end of June, the Agency signed two contracts related to the development of the EES-ETIAS web service: one pertaining to the infrastructure part, and one for the creation of the carrier interface simulator.

e. Interoperability with the VIS

In the first half of 2021, eu-LISA continued with various developments related to the VIS-EES interoperability. For example, the Agency procured and installed the hardware components at both operational sites, subsequently proceeding with their configuration and preparation for testing. The development of new operations was finalised, and the Agency launched the functional tests exercise.

Using information and documentation provided by eu-LISA, the vast majority of Member States have already finalised the specifications of their national systems, the related national procurement procedures, as well as the development and, in most cases, also the testing against the VIS central system simulator. The compliance testing environments were made available to the Member States at the beginning of March 2021, allowing the connectivity tests to begin. The connectivity tests were successfully completed by almost all Member States, with more than half completing the application connectivity tests as well.

1.2.2. ETIAS

The implementation of ETIAS started in the end of 2018 and is structured in three distinct phases: the preparation phase, the procurement phase and the implementation phase. At the end of June 2021 their status is as follows:

a. Preparation phase

As at the end of June 2021, all prioritised implementing and delegated acts had been adopted. On 18 March, the Council and the European Parliament reached a political agreement on the ETIAS consequential amendments. eu-LISA worked on those acts in close connection with the Commission, and carried out a rigorous impact assessment to identify any potential effects, not only on the technical specifications of the ETIAS components but also on all other systems and components (i.e. CIR, ESP, EES, VIS, SIS and ECRIS-TCN).

b. Procurement phase

On 21 January, the Agency awarded the contract for the development services of ETIAS to the ARHS-SWORD consortium. The first specific contracts for the project setup and the analysis and design were signed on 12 February.

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19 The regulations apply to air carriers, sea carriers and international carriers transporting groups overland by coach, coming into the territory of the Member States.

On 26 May 2021, the Commission gave a favourable opinion on the technical specifications of the ETIAS Watchlist, triggering the process of approval by the eu-LISA Management Board, which was granted on 15 June. Further to that, the Agency will be able to proceed with contracting the development of the ETIAS Watchlist.

On 1 June, the Agency signed a framework contract for testing and integration services. In this respect the procurement phase for ETIAS should be considered as completed.

c. Implementation phase

In January 2021, eu-LISA launched the process of updating the draft requirements, involving external stakeholders (e.g. Frontex) to ensure that the requirements meet all expectations. The process was expected to be completed in August 2021. In May 2021, the Agency also launched a consultation with the Member States on the business and stakeholders' requirements. The feedback received was assessed and taken into consideration.

The ETIAS implementation kick-off meeting was held on 19 February, launching both the project setup work package, expected to continue until July 2021, and the analysis and design work package, expected to be completed in August 2021. On 31 May, the Agency delivered the ETIAS ICD to the Member States. In addition, the development of software mock-ups has also begun, with the first of four iterations already completed, and the second iteration ongoing by the end of the reporting period.

In March 2021, eu-LISA initiated technical discussions with the ETIAS contractor on the design and the encryption technology of the ETIAS Watchlist. Only one encryption technology was identified as being able to meet the stringent encryption and search requirements. In addition, a preliminary assessment also identified potential challenges with regard to its timely adaptation to the ETIAS within the established implementation timelines. A comprehensive assessment was therefore started, in order to identify more precisely any further limitations. If any substantial limitations are confirmed, the Agency might have to envisage an alternative approach of allowing temporary decryption of data in use.

The ETIAS regulation provides that audio and video communication may be used to conduct interviews with applicants, in case consular services are located too far away from the applicant's place of residence. eu-LISA has finalised the feasibility assessment of a centralised procurement for the audio-video tool, concluding that such centralised procurement would not guarantee a positive cost/benefit ratio. Thus, to best support the Member States, eu-LISA agreed to provide a white list of tools that meet the requirements defined in the related implementing act. The exercise was ongoing, and the Agency already selected 20 tools that will undergo further testing.

The first version of the ETIAS DPIA (Data Protection Impact Assessment) was approved mid-June 2021. Taking into account the safeguards, security measures and controls adopted to mitigate the identified risks, the assessment concluded that the processing of personal data does not represent a high risk to the rights and freedoms of natural persons, and thus the processing of personal data will be carried out. The assessment report has been shared with the EDPS and external stakeholders.

1.2.3. Interoperability

The interoperability programme is structured in three phases: the preparation phase, the procurement phase and the implementation phase of the components. As of the end of June 2021 the status of each phase is as follows:

a. Preparation phase

The work progressed on two remaining implementing acts: in Q2 2021, the proposal on the technical solution to manage user access requests for law enforcement access achieved the 'stable version' milestone, and the stable version for the proposal on laying down and developing the universal message format (UMF)[20] standard is expected by Q3 2021.

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[20] The universal message format is a standard on what the structure of the most important law enforcement concepts should be when they are exchanged across borders (Europol).

b. The procurement phase

By the end of the reporting period, eu-LISA had signed framework contracts with the selected contractors for all four Transversal Engineering Framework (TEF) lots. The framework contract for lot 4 was signed on 1 June. The specific contracts for lot 1 (i.e., quality assurance, high-level design and coordination) and lot 3 (i.e., system and infrastructure services) were concluded in 2020. For lot 2, the first specific contracts covering the setup and design activities were signed on 23 July.

c. Interoperability components implementation phase

The interoperability components and system, i.e. the ESP, the CIR, the MID and the CRRS, have entered the implementation phase with some delay. The Agency received the Commission's formal opinion on the technical specifications for the ESP, the CIR, the MID and the CRRS in Q1 2021. The specifications were subsequently adopted by the eu-LISA Management Board, in March for the CRRS and in April for the ESP, CIR and MID. By the end of the reporting period, a new version of the integrated planning was under elaboration, taking into consideration the challenges of the implementation of SIS and VIS with the interoperability components, as well as the delays in the milestones of interoperability ICDs.

For a more detailed overview of the development of the Shared Biometric Matching Service (sBMS), please refer to the EES section page 15.

1.2.4. SIS Recast

The SIS recast regulations, adopted in 2018, widened the scope of the system's applications and functionalities. During the first half of 2021, the project aiming at the implementation of the SIS recast regulations progressed, but was affected by some delays. The delays were due in part to dependencies with other SIS evolution projects (AFIS phase 2 and capacity increase) and from the late delivery of hardware necessary for the test environment. The Agency completed the compliance tests for the interim release 1, containing changes related to alerts on persons. Alerts on objects are included in the interim release 2, which was completed in March. Subsequently, eu-LISA launched the compliance test campaign. The merged ICD/DTS (covering both SIS Recast and AFIS) was delivered to the Member States on 19 April. After a series of review cycles, the document (v. 4.9.0.9) was approved by the SIS Advisory Group on 5 July.

Central system simulator: Progress was made with the alignment of the central system simulator with the latest evolutions. In April, the simulator was updated with the elements of the intermediate releases 1 and 2, while the remaining SIS recast functionalities are scheduled to be made available in August.

Data Exchange between SIRENE Bureaux (DEBS) documentation update (version 4.0.2) was released in March. All changes were presented during the 8th DEBS workshop, held on 5 March. The updated DEBS documentation will ensure that the SIRENE Bureaux can exchange information on the new functionalities stemming from the SIS Recast.

1.2.5. ECRIS Reference Implementation (ECRIS RI)

In April 2020, eu-LISA took over the operational management of the ECRIS RI from DG JUST, as the first step in the development of ECRIS-TCN. Developed in 2012, the ECRIS RI software offers a web-based integration interface which establishes a connection between central authorities of Member States, in order to allow the exchange of information on convictions between the Member States.[21] The tender for ECRIS RI maintenance was launched in February 2021 and the contract with a duration of one year was awarded on 29 March 2021.

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21 Council Framework Decision 2009/315/JHA of 26 February 2009 on the organisation and content of the exchange of information extracted from the criminal record between Member States, OJ L 93, 7.4.2009, p. 23–32

The ECRIS RI version 1.6 release was completed by all Member States by mid-February 2021. Afterwards, two non-mandatory releases (1.6.1 and 1.7) were made available to the Member States in March 2021. In the beginning of June, a minor release (1.6.2), resolving reported issues, was made available to all Member States. The functionality of the 1.6.2 version will be released as version 1.7.1 by the end of July.

1.2.6. ECRIS-TCN

The ECRIS-TCN development programme is structured in three distinct phases: the preparation phase, the procurement phase and the implementation phase.

a. Preparation phase

The Agency completed the ECRIS-TCN tender technical specifications (TTS) on 21 February 2021. The Commission gave its formal opinion on the TTS on 2 June, and it was adopted by the Management Board via written procedure on 21 June 2021, effectively concluding the preparation phase.

b. Procurement phase

On 17 March, the Agency launched the procurement for development services. By the end of the reporting period in June, the evaluation was completed and the award procedure was nearing completion, with a slight delay. At the same time, eu-LISA was finalising the ECRIS-TCN DPIA.

c. Implementation phase

In March, eu-LISA started working on the development requirements. In April, the Agency invited members of the ECRIS-TCN Advisory Group to contribute in a voluntary consultation on the business, stakeholder and functional requirements documents. Four Member States (Luxembourg, France, Hungary and Czech Republic) responded positively to the call for interest and contributed to the exercise. Three workshops were organised with these four Member States; the last one was successfully completed on 8 July.

1.2.7. e-CODEX

e-CODEX provides a European digital infrastructure for secure and interoperable cross-border communication in the area of justice.[22] The e-CODEX system has been developed to overcome a fragmented and incompatible variety of national IT tools, and to ensure secure electronic transmission of information in cross-border justice proceedings, where such transmission is allowed under national law.

The e-CODEX (e-Justice Communication via On-line Data Exchange) proposal was tabled by the Commission on 2 December 2020. The proposal aims to ensure the sustainability of e-CODEX with an adequate governance and management structure compatible with eu-LISA that respects the independence of the judiciary and the constitutional requirements of the Member States, while ensuring adequate representation of the EU and Member States' judicial authorities, as well as of the key stakeholders. Once eu-LISA takes over responsibility for the system, at the earliest on 1 July 2023 as foreseen by the proposal, it will have to ensure, on the basis of technical and service-level requirements set out in implementing acts, that the existing software remains functional and is adapted to evolving user needs. On 7 June, the Council approved a general approach on the regulation on the e-CODEX system.

In parallel with the discussion in the 'Ad-hoc Council Working Party on the proposal for an e-CODEX Regulation', eu-LISA was invited to attend two handover workshops on the technical and functional transfer of knowhow, organised by the Me-Codex II consortium on 30 March and 1 June, respectively.

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22 https://www.e-codex.eu/

1.3. Security and business continuity

During the first half of 2021, the Agency's security function continued to maintain and upgrade eu-LISA's overall security policy framework, as well as specific measures related to physical security, personnel security, systems security and resilience, in order to ensure the fulfilment of the Agency's mandate.

In the business continuity area, eu-LISA adopted a number of corporate internal documents (e.g. the Corporate Business Continuity Plan, Business Continuity Implementing Rules), and appointed special correspondents to support the resilience of the organisation. With regards to information security, the eu-LISA Management Board adopted in June the updated Security and Business Continuity/Disaster Recovery Plans for the SIS and for the VIS.

Throughout the reporting period, the Agency continued to strengthen the security framework for the systems under its management, and the corresponding communication networks, by preparing the security and business continuity plans for Eurodac, the sBMS, the CSI and the communications infrastructure.

In addition, eu-LISA carried out the continuous monitoring and management of residual security risks to provide assurance that the appropriate security controls for the IT systems under its purview are effective, properly implemented and managed.

Furthermore, the Agency also continued the security monitoring of corporate and large-scale IT systems to facilitate the detection and prompt response to increasing cyberattacks. On 15 January, eu-LISA conducted a cybersecurity and business continuity exercise for corporate IT systems and services. The exercise was followed by a comprehensive analysis and assessment of the results, which was adopted by the Agency's Management Committee on 26 April, together with a Corporate Infrastructure Security Plan.

On 4 November 2020, eu-LISA conducted the Multisystem Exercise 2020, focusing on end-to-end security, business continuity and disaster recovery of the SIS, the VIS and Eurodac. The final report of this exercise was adopted by the Management Board on 16 March, providing an evaluation of the exercise, as well as main findings and recommendations that will be followed-up in an action plan.

Additionally, the Agency put efforts in the security aspects of the development of the new systems, whether as part of the drafting of technical specifications, in the developments of a secure architecture or by contributing to the developments of interoperability and ETIAS implementing acts. To that end, security experts from Member States and Commission were actively engaged via the Security Officers Network (SON) established for the purposes of exchanging best practices in all security and business continuity domains. On 11 May, eu-LISA organised the 13th SON meeting that gathered experts from the Member States, the Commission, Europol and Frontex, to discuss risk assessment processes, security and business continuity, as well as the EU's overall threat landscape.

In the context of protective and physical security, eu-LISA managed to complete several improvements despite limited staff presence at the technical sites, due to COVID-19-related restrictions. In that regard, the focus was primarily on ensuring healthy working conditions for critical staff working on the systems' operations on a 24/7 basis. The Agency also prepared the security requirements for the second extension of the Agency's technical site and the temporary office facilities in Strasbourg.

Finally, the Agency continued its fruitful cooperation with relevant EU Agencies and Institutions by sharing knowledge and best practices on issues related to business continuity, especially in the context of the COVID-19 pandemic. The network of Business Continuity Officers was engaged in continuous knowledge sharing, including risk assessments and best practices for ensuring staff safety.

1.4. Implementing the second extension of the technical site in Strasbourg

During the first half of the year, eu-LISA made progress with the project for the second extension of its technical site in Strasbourg, and on the preparations related to the temporary solutions for its office building and data centre. The Agency regularly presented programme updates to its Management Board.

At the start of the year, the Project Board worked on the preparations for the building design contest, deciding in May on the procurement options. The Agency also provided a revised financial envelope estimate and building programme.

At the end of 2020, the Agency concluded a new rental contract for additional office space in the Illkirch district of Strasbourg, in close vicinity to the Agency's technical site. From January 2021, eu-LISA proceeded with the installation of office equipment in the new facilities, applying the latest workplace design recommendations in order to provide its workforce with a modern, comfortable and user-friendly working environment.

1.5. Consolidation of the Agency after a period of change, growth and transformation, with a focus on capabilities development

In January 2021, eu-LISA launched its cultural transformation project as the next stage of the organisational transformation initiated by the previous eu-LISA 2.0 programme. The project aims to design an organisation that would be able to adapt and deliver in any circumstances. The project is expected to deliver a holistic plan, including both hard elements (i.e. structures, processes and strategy) and soft elements (i.e. values, competencies, people and leadership), to support the Agency in its transformation.

During the first 6 months, eu-LISA initiated first a 'Cultural Diagnosis', to map the aspired culture and identify the current culture of eu-LISA. This was performed via workshops for staff, surveys and cultural ambition workshops with the eu-LISA management. The Agency also started the 'AS IS' analysis of the target operating model. It focuses on mapping the main dimensions of the current operating model, consolidate it and document it. Activities included the dimensioning of strategies, policies and governance, as well as the dimensioning of processes and services. eu-LISA also launched the work on capacity and capability, with a focus on identifying the current situation of resources knowledge, skills, abilities and attitudes in eu-LISA. A further analysis of the eu-LISA Competency Framework and other key information will be performed, as well as a mapping of each identified role with key capabilities, skills, knowledge, abilities and attitudes. This work will in turn feed other relevant elements to develop a Competency-based Human Resources Management Strategy, contributing to the improvement of the Agency's recruitment, workforce planning, performance management and learning offer.

Leadership is one of the core elements of the cultural transformation. Following the principles of evidence-based management approach, eu-LISA's Leadership Development Programme was initiated and its first module was delivered. The first module focused on leadership behaviours, strategic thinking and alignment on collective actions and way of working, and to assess its impact, a 360 exercise was carried out.

1.6. Further strengthening the Agency's internal governance and controls, including quality management

1.6.1. Strategic and operational planning and reporting

On 9 February 2021, the eu-LISA Management Board adopted the draft Single Programming Document (SPD) for the 2022–2024 period. The document was subsequently sent to the European Parliament and the Council, as well as to the Commission for their formal opinion. The final version of the SPD 2022–2024 will be adopted by the Agency's Management Board in November 2021.

On 29 June, the eu-LISA Management Board adopted the 2020 Consolidated Annual Activity Report (CAAR), which was then sent to all EU institutions concerned and published on the Agency's website.

1.6.2. Internal control framework

During the reporting period, eu-LISA carried out the annual assessment of the effectiveness of its Internal Control Framework (ICF). The assessment report was adopted by the Agency's Management Committee, and was subsequently presented and discussed with the Management Board's Audit, Compliance and Finance Committee (ACFC) in May, and finally with the Management Board on 29 June. A summary of the results was included in the 2020 CAAR.

In February, eu-LISA carried out an analysis of its central register of exceptions and non-compliance events, which was later presented to the Agency's Management Committee.

1.6.3. Governance bodies

During the reporting period, eu-LISA continued to provide high-quality administrative and logistical support to its Management Board, Programme Management Boards and Advisory Groups. In the first half of the year, eu-LISA governance bodies organised altogether 64 meetings, including 4 Management Board meetings, 30 Advisory Group meetings, 21 Programme Management Board meetings, and several other ad hoc events as requested by the Agency's stakeholders.

1.6.4. Internal audit

During the reporting period, eu-LISA's internal audit capability (IAC) continued to provide an objective and independent assurance on the effectiveness of the Agency's risk management, governance and internal control processes, while also monitoring the implementation of audit recommendations. In 2021, the IAC conducted an audit of the ETIAS project risk assessment to provide assurance about the effectiveness of the project's internal controls, and a review of the management of ABAC23 access rights. Additionally, eu-LISA's internal audit capability provided support to the audits conducted by the Commission's Internal Audit Service (IAS) and by the European Court of Auditors (ECA), in particular on the legality and regularity of the 2020 accounts, to ensure that information was available to the auditors with minimum disruption to the Agency's day-to-day operations.

1.6.5. Data protection

Between January and May, eu-LISA completed the project to convert old notifications under Article 25 of the Regulation (EU) No 45/2001 into Records under Article 31 of the Regulation (EU) 2018/1725 to ensure data protection obligations when processing personal data. The total number of records analysed during the review process was 131, with 67 concerning old notifications transposed into records. The Agency's data protection team supported the data controllers through coaching sessions and workshops.

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23 Accrual Based Accounting (ABAC) is the accounting system used by eu-LISA

During the reporting period, eu-LISA followed up on the implementation of the recommendations identified in the European Data Protection Supervisor's (EDPS) audits on the SIS and the VIS. In March, the Agency received the final EDPS report on the 2019 Eurodac inspection, which included 29 recommendations to be implemented between 2021 and 2024. The action plan for the implementation of those recommendations was prepared by the Agency's Data Protection Officer (DPO).

The DPO closely supported the developments and evolutions of new and existing systems by getting involved in the change management process, and by being engaged at different stages of the development of data protection impact assessments (DPIAs). The DPO provided expertise and advice along the preparation of the DPIAs, during meetings with the responsible teams and through several reviews of the reports. The DPO also provided references to relevant documentation and guidelines, such as those from EDPS[24] or from the Article 29 Data Protection Working Party.[25]

Additionally, eu-LISA continuously trained its staff on the topics related to data protection, in particular on data breaches and on the principles of *data protection by design* and *by default*. Training was provided through awareness sessions for newcomers, webinars organised in collaboration with ENISA, or on the occasion of the data protection day, on 28 January.

On 16 March, the DPO Annual Work Report 2020 was presented to the eu-LISA Management Board and subsequently published on the Agency's website. On 16 April, the eu-LISA Management Board adopted the internal rules on the restriction of certain rights of data subjects in relation to the processing of personal data in the framework of the functioning of eu-LISA.[26] These internal rules, published in the *Official Journal of the EU* on 7 May, are in line with Article 25 of the Regulation (EU) 2018/1725, as well as relevant EDPS guidelines.

eu-LISA's DPO participated in the Supervision Coordination Groups for SIS, VIS and Eurodac, during which she presented the latest developments and systems performance to the national data protection authorities and the EDPS. In addition, eu-LISA's DPO also took part in the meetings of the DPOs Network and of the JHA DPO Network.

Furthermore, eu-LISA contributed to the COVID-19 survey conducted by the EDPS to gain insight into how EU Institutions and Agencies have complied with data protection requirements during the pandemic. The survey looked in particular at new data processing operations implemented as part of 'return to work' strategies, as well as IT solutions used to ensure business continuity during the extended period of teleworking.

1.7. **Horizontal activities**

1.7.1. **Partnership with the Member States and EU institutions**

During the reporting period, eu-LISA continued the excellent partnerships established with the Member States, EU institutions and other EU Agencies.

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24 Accountability on the ground: Guidance on documenting processing operations for EU institutions, bodies and Agencies, EDPS, July 2019
25 Guidelines on Data Protection Impact Assessment (DPIA) and determining whether processing is "likely to result in a high risk" for the purposes of Regulation 2016/679, Article 29 Data Protection Working Party, October 2017
26 Decision No 2021−096 REV 1 of the Management Board of eu-LISA, OJ L 161, 7.5.2021, p. 9−15

The Agency was actively engaged and continued to provide substantial contributions to the technical and stategical discussion held within the relevant Working Parties of the Council of the European Union, the Standing Committee on Operational Cooperation on Internal Security (COSI), the Strategic Committee on Immigration, Frontiers and Asylum (SCIFA), and also in the high-level discussions of the Justice and Home Affairs Council meetings. In close cooperation with the rotating Presidency of the Council of the EU, the Agency continued to actively support the work of the Working Party on JHA Information Exchange (IXIM). Important contributions were also provided in other relevant working parties, e.g. in the context of the Frontiers Working Party. The Agency was also invited to present the e-VISA Pilot Project to the members of the VISA Working Party, together with the main changes that will be introduced by the new VIS Regulation and the VIS Consequential Amendments. Furthermore, eu-LISA was also invited to present its views on the e-CODEX legislative proposal to the Members of the Ad-hoc Working Party on e-CODEX.

In the context of the development of the new systems, the Agency provided continuous support to the European Commission and the Member States in the preparation of the relevant implementing and delegated acts, by contributing to the technical discussions at operational and business level and taking an active part in committee and expert meetings. Additionally, eu-LISA also provided the European Parliament and the Council of the EU with regular reports on the status of the development of future systems, in accordance with the respective legal instruments.

With regard to upcoming legislative initiatives, the Agency also contributed to various discussions organised by the Commission, such as the workshops on the 'new generation of Prüm';[27] the Expert Group on the digitalisation of Justice; the Hit-no-Hit Task-Force, and the Commission Expert Group on Artificial Intelligence in the domain of Home Affairs.

Throughout the first part of 2021, eu-LISA also closely followed the activities of various Committees of the European Parliament (e.g. Committee on Civil Liberties, Justice and Home Affairs (LIBE, including its Working Group on Schengen Scrutiny), Committee on Budgets (BUDG), Budgetary Control Committee (CONT), and the Special Committee on Artificial Intelligence in a Digital Age (AIDA). The Executive Director of eu-LISA was invited as a speaker to the AIDA workshop on AI and law enforcement, and also provided an update to the LIBE Committee on 27 January on the state of play of the implementation of the new systems and interoperability.

In addition, during the reporting period, eu-LISA hosted a number of high-level visits of ministers of the EU Member States. In April, the delegation of Slovenian Ministry of Interior, led by the Minister Aleš Hojs, met with eu-LISA's top management to discuss the priorities of the upcoming Slovenian Presidency of the Council of the EU and the areas of cooperation with eu-LISA. The meeting with the Estonian Minister of Justice, Ms Maris Lauri, also held in April, focused on the digitalisation of the EU's justice domain and the development of the e-CODEX platform. In June, the Estonian Minister of Interior, Mr Kristian Jaani, visited the headquarters in Tallinn to exchange views on eu-LISA's priorities, development of the new systems, cyber security, e-CODEX and the status of the Agency´s based in Estonia. During the visit of the Estonian Minister of Foreign Affairs, Ms Eva-Maria Liimets, the discussion touched upon the expansion of eu-LISA's role into the digitalisation of justice, its part in the implementation of e-CODEX, as well as possible re-opening of the negotiations on the site agreement with Estonia.

Schengen evaluation

The Schengen evaluation and monitoring mechanism monitors the implementation of the Schengen rules that apply to all Member States.[28] Its purpose is to ensure an effective, consistent, timely and transparent application of Schengen rules. Due to COVID-19-related travel restrictions, eu-LISA decided to limit to desk support its contribution to the Schengen evaluations in the first half of 2021. This support was provided to the SIS/SIRENE evaluation teams who carried out the evaluation of France, the Netherlands, Belgium and Ireland.

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27 The 'Prüm Decision' refers to Council Decision 2008/615/JHA, addressing the automated exchanges of information between EU countries' police and judicial authorities, to combat terrorism and cross-border crime more effectively.
28 For more: https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/schengen/schengen-evaluation_en

1.7.2. Partnership with other EU Agencies and other bodies

During the reporting period, the Agency's cooperation with EU agencies continued both at bilateral level and through several networks.

In January, eu-LISA and the European Union Agency for Cybersecurity (ENISA) signed a three-year cooperation plan for the purposes of sharing knowledge, information and expertise for building a more digitally resilient Europe. In the second quarter of 2021, eu-LISA entered into negotiations with the European Union Agency for Criminal Justice Cooperation (Eurojust) and Frontex, with a view of concluding new multiannual cooperation plans. With Frontex, the Agency launched consultations to also renew the working arrangement in order to bring it in line with the expanded mandates of both Agencies. In addition, eu-LISA is elaborating its first working arrangement with the European Union Aviation Safety Agency (EASA) to support the implementation of the EES and the ETIAS Regulations. The Agency is currently engaged in technical discussions with the European Asylum Support Office (EASO) to conclude a new service-level agreement on the recovery site for EASO's ICT logical infrastructure and communications in the eu-LISA technical sites.

In February, eu-LISA took part in an online Interoperability Conference that reunited the Member States, the European Commission, JHA Agencies and part of the Agency's governance structure. The conference was a joint effort by eu-LISA, the Interoperability Programme Management Board, and the Hungarian Smart Borders Team. Topics addressed at the online conference included the best utilisation of the new interoperability architecture at Member State level and recommendations on how to best conduct parallel developments of interoperability components, as well as for the new systems (i.e. EES, ETIAS and ECRIS-TCN).

In April, eu-LISA attended the high-level forum on the implementation of the new architecture of EU information systems for borders, migration and security, organised by the European Commission. The Executive Director, Mr Krum Garkov, reported on the Agency's work related to the IT systems under its purview, as well as on the progress made on the interoperability.

Within the framework of the EU's JHA Agencies Network (JHAAN), chaired by Frontex in 2021, the Agency participated in two regular contact point meetings and in several ad hoc meetings organised during the reporting period. In addition, the Agency participated in five seminars organised by Frontex on JHAAN's priorities. With the eu-LISA Green Month 2021, organised in May, the Agency also contributed to the JHAAN initiative to promote green activities of JHA Agencies to the general public and also internally.

In addition, eu-LISA continued its active participation in the EU Agencies Network (EUAN). In February, eu-LISA's Deputy Executive Director, Mr Luca Tagliaretti, took part in the meeting of the Network of Heads of EU Agencies and also in the special meeting on Brexit, as well as in the first meeting of the Executive Directors Group on Administrative Excellence.

1.7.3. Capabilities

a. Training for Member States

The eu-LISA Training Plan for 2021, encompassing all large-scale IT systems overseen by the Agency, was presented to the Member States at the beginning of the year. The Agency focused on delivering high-level technical training events, taking stock of the experience it has already built up in the previous years with the use of the eu-LISA's learning management system (LMS). The majority of new activities were designed to be delivered online, with a focus on self-paced, asynchronous online courses.

Altogether, eu-LISA delivered 6 new online courses, 1 programme, and 14 webinars that can be accessed in a recorded format via the LMS.

With regard to online courses, SIS Recast Essentials, VIS Essentials, SIS and SIRENE Technical Profile (SIS II), Eurodac Essentials, Eurodac IT Operators and Eurodac SPoC (single point of contact) were available to the Member States from April until June 2021. Additionally, the Agency delivered the final modules for the completion of the SIS Newcomers course for Cyprus, finalising the course started in 2020. eu-LISA also prepared new modules for the EES profile courses, specifically in relation to national uniform interfaces (NUI).

As for live webinars, eu-LISA delivered the EES NUI Interconnection webinar (in January), SIS Recast Awareness (in January), Introduction to VIS/BMS (in February), EES Security Certificates (in March), Introduction to Eurodac and Eurodac Basics (in March), Eurodac Operator's Manual (in March), Interoperability between VIS and EES (in March), Eurodac Network Overview (in April), ETIAS Awareness (in May) and EES Notifications Channels and Call-back URLs (in June). Most of these webinars took place with the technical support of the European Union Agency for Law Enforcement Training (CEPOL) who provided its webinar software and technical moderation. Additionally, eu-LISA conducted four webinars to upcoming Schengen evaluation missions for SIS/SIRENE.

The first ever ETIAS Awareness webinar ended up being the most attended online event organised by the Agency, with over 430 participants.

One training programme was launched for Frontex as a newcomer to SIS. Essentially, the programme 'repackaged' existing and upcoming SIS activities (including Recast) in order to support the training of Frontex staff.

Finally, as part of its continuous improvement programme, eu-LISA launched a comprehensive external evaluation of its training function, with a view to increase the level of service for the Member States, while also taking stock of the lessons learnt from the digitalisation brought about by the pandemic.

In June, the Agency set up the Interoperability Expert Training Group and launched a pilot project in order to further improve its cooperation with the Member States. The objective is to support the training team in the first annual training needs analysis for interoperability, to determine the training offer for the following year.

b. Research and technology monitoring

In June, eu-LISA held its 13th Industry Roundtable as a two-day online event under the title 'Contactless Travel in Post-COVID Times: Enhancing the EU Security Ecosystem'. The event was organised in collaboration with the Portuguese Presidency of the Council of the EU. More than 330 people from 40 different countries joined the event platform online, with more than 290 unique visits during the first session, and more than 220 during the second, a slight increase in attendance compared to last year's roundtable.

In January, for the first time, eu-LISA took part in the meetings of the ISO standardisation subcommittee on biometric technologies (ISO/IEC JTC 1/SC 37).

Following the progress made in 2020, the Agency continued working on the standardisation roadmap, which aims at implementing common standards for the equipment and solutions used for the large-scale IT systems in the JHA area. eu-LISA prepared an action plan for its implementation, which was endorsed by the Council's Working Party on JHA Information Exchange (IXIM) in June 2021.

On 15 March, the Executive Director of eu-LISA signed the terms of reference for the Agency's formal engagement in the EU Framework Programme for Research and Innovation. Based on this arrangement, eu-LISA will support DG HOME in the definition of priorities for the Framework Programme and will contribute to the evaluation of project proposals, for research topics related to the operational management of large-scale IT systems in the JHA area.

In addition, the Agency continued its active contribution to the EU Innovation Hub for Internal Security, established in 2020, in particular for the definition of its governance, operational and financial models.

eu-LISA also supported Frontex in technical assistance projects in North Macedonia and Montenegro (under the Instrument of Pre-accession Assistance – IPA II). The Agency is contributing to the identification of solutions to upgrade the IT systems and infrastructure related to border and migration management, in particular for the registration of mixed migration flows.

During the reporting period, eu-LISA launched a Working Group on Artificial Intelligence, and held its first meeting on 11 May. The first meeting set the scene for future collaboration with the Commission, Member States authorities and relevant EU Agencies. During the meeting, eu-LISA introduced the remit of the working group and presented its own initiatives in the field of artificial intelligence. The primary aim of the Working Group is to create a forum for the exchange of ideas and for fostering close collaboration and joint practices in the development of AI solutions.

Finally, eu-LISA continued the prototype development for the EU online visa application portal (e-Visa). In June, having successfully completed the prototype, the Agency proceeded to the final phase of testing the prototype with the Member States. The project is expected to be finalised by the end of September 2021.

c. High availability of the large-scale IT systems

The systems entrusted to eu-LISA are of critical importance for border control, internal security and migration management in the EU. The Agency is thus expected to ensure their uninterrupted availability to the Member States. However, the existing systems (i.e. SIS, VIS and Eurodac) have been developed at different times and are based on different architectures, which affects their level of availability.

On 16 March, the eu-LISA Management Board adopted the impact assessment on the implementation of an active-active architecture of the systems managed by eu-LISA, taking into consideration the positive outcome of the consultation with the European Commission. During the reporting period, the Agency continued working on the implementation of the outcomes of this impact assessment, first with the new systems and the interoperability components, which include uninterrupted availability features by design. High-availability design elements were also included for the existing systems' recasts, to prevent situations where the unavailability of existing systems (e.g. for maintenance) would affect the operation of new systems. To ensure uninterrupted availability, eu-LISA focused on the alignment of the various products, infrastructure, and network roadmaps under its purview. Finally, the Agency prepared an integrated plan for implementing uninterrupted availability across all systems and elements.

Despite the complexity of this critical task, and the concurrent work to advance on multiple ongoing developments, eu-LISA has made good progress towards this major objective, which will considerably increase the level of services delivered to the Member States.

1.7.4. Administration and general support

a. Human resources

Throughout the reporting period, eu-LISA continued to adapt its human resources processes to the new circumstances brought by the COVID-19 pandemic. The Agency introduced several new arrangements and continued its digital transition to paperless procedures, such as electronic payslips. In addition, eu-LISA launched a Mental Health and Wellbeing programme for its employees, including a wide range of awareness, prevention and support measures. The Agency also launched awareness programmes around respect and corporate values.

During the first half of 2021, eu-LISA continued its recruitment efforts, despite the difficulties related to COVID-19 travel restrictions. The Agency continued streamlining its processes to benefit both eu-LISA and the candidates. Several new tools were introduced, such as online video interviews, which save time and offer additional flexibility. In its continuous efforts to foster diversity and inclusion, the Agency participated alongside multiple leading international organisations in the 'Women in Tech' event, an online career fair aimed at attracting women to science, technology, engineering and mathematics (STEM).

By the end of the reporting period, the total headcount of the Agency's staff reached 294, from 274 at the end of 2020.

Table 1 – eu-LISA headcount on 1.7.2021

Staff population	Filled as of 31.12.2020	Authorised under EU budget for year 2021	Actually filled as of 1.7.2021	Occupation rate for 2021 as of 1.07.2021
Temporary agent (TA)	181	213	187	87 %
Contract agent (CA)	83	132	98	74 %
Seconded national expert (SNE)	10	11	9	81 %
Total	**274**	**356**	**294**	**83 %**

The Agency paid special attention to welcoming and onboarding all newcomers, which is particularly important at a time when most teams are teleworking. In the first half of the year, eu-LISA organised two rounds (40 sessions) of the onboarding awareness series. The Agency's online onboarding programme was updated to reflect recent organisational changes and complement existing modules. eu-LISA also continued to upgrade its internal e-learning platform with a view to making it more accessible and flexible. During the reporting period, the Agency organised altogether 67 training sessions for its workforce.

b. External communication

The Agency focused on providing visibility of its achievements and increasing public awareness on how eu-LISA serves the interests of EU citizens. In February, the Agency adopted its new External Communication Strategy for 2021–2027 in February, laying the foundation for coherent corporate communication for the next seven years.

Over the last six months, eu-LISA concentrated its efforts on building and broadening its online presence both through its website and across different social media channels. Altogether more than 30 eu-LISA specific 'Highlights' were published on the corporate website and distributed among the Agency's stakeholders and partners. On average, the Agency published seven social media posts per week, and the number of eu-LISA's online followers kept growing over the six-month period: + 980 on LinkedIn, + 250 on Twitter, + 130 on Facebook. eu-LISA also conducted several online campaigns and participated in joint EU initiatives, such as #EuropeDay, #EUGreenDeal, #DigitalEU, #EUSecurityUnionStrategy, #WomensDay, #WomeninHiTech, and the #JHAA response to COVID-19, to name a few.

In June, the Agency implemented a special communication campaign plan to provide carefully targeted coverage for the eu-LISA Industry Roundtable, which was the main event of the first semester. The coverage resulted in 18 000 views and over 550 interactions.

To increase its communication capability, the Agency organised tailored trainings for its communication team. As a result, eu-LISA managed to produce an increasing number of unique visuals and customised coverage for its ten online campaigns and five major briefing sessions for VIP delegations, that were carried out during the reporting period. In addition, the Agency conducted several video and photo sessions, to produce engaging messages from eu LISA's top management for distribution to stakeholders, while also highlighting the Agency's positions on JHA priorities.

As a major undertaking, eu-LISA prepared its new visual identity, in cooperation with the Publications Office of the EU. The Agency's new visual identity was formalised by Executive Director's Decision on 30 June, launching the rollout campaign, in line with the phased plan approved by the Management Committee.

c. Internal communication

In line with the priorities for 2021, eu-LISA continued to perform timely and targeted crisis communication on the topics related to the COVID-19 pandemic. Altogether 48 situation reports and guidelines, primarily focusing on vaccination and preparations for re-entry, were compiled and communicated to the Agency's staff across all locations. According to the internal survey conducted in June 2021, employee satisfaction with COVID-19-related communication (i.e. clarity, focus, etc.) was notably high – over 80 %.

To meet staff expectations, the Agency also worked on updating the format of the weekly internal newsletters. A new SharePoint tool – JungleMail – was introduced, and 30 weekly newsletters, as well as the biannual special edition, were published to provide employees with regular updated information, and allow staff to contribute to strengthening of corporate culture by sharing achievements. Additionally, eu-LISA organised four staff assemblies and special briefings on the security aspects of online communication, and shared regular updates on the Management Committee's proceedings.

Together with the launch of the new corporate visual identity, the Agency prepared tutorials and guidelines to support the rollout of eu-LISA's the related manual and the introduction of the new documents formats. Several internal social campaigns were also organised to boost staff engagement and intra-agency business partnerships.

2. Major risks during the reporting period

During the reporting period, nine new corporate risks were added to the corporate risks log, based on the analyses carried out in 2020 and confirmed during the Annual Corporate Risks and Issues Workshop.

The status of all Corporate Risks and progress on their individual risk management plans were presented to the Management Committee in March and also in June 2021. The Management Committee decided that one risk materialised and became a corporate issue. The Agency keeps its proactive approach in monitoring the identified major corporate risks as part of its internal control system.

The table below shows the list of current corporate risks as at the end of June 2021.

Table 2: Corporate risks

Risk ID	Corporate Risk Title	Probability	Impact	Owner and other contributors
2017-1	Targeted and successful external cyber-attack on the eu-LISA infrastructure.	3 – High	3 – High	Head of Security Unit
2018−1	Measures already taken might not be sufficient to ensure that the sizing of the data centre capacity will enable the Agency to host the future systems.	2 – Medium	3 – High	Head of Infrastructure Management Unit and Head of Corporate Services Department
2018−2	Organisational instability arising from the Agency restructuring programme.	2 – Medium	2 – Medium	Executive Director and Deputy Executive Director
2018−3	Threat of significant cost increase of communication infrastructure.	4 – Very High	3 – High	Head of Infrastructure Management Unit
2018−4	Proper allocation and balancing of resources might be hampered due to lack of people, procedures and tools. Increasing discrepancies between statutory staff present and activities to be undertaken, might negatively affect the Agency's work and possibly its business continuity. Year n-1 budget implementation/ cancellation of appropriations. Issue title "*Increasing discrepancies between statutory staff present and activities to be undertaken, might negatively affect the Agency's work, and possibly its business continuity. It might also impact the budget implementation with an increased number of appropriation cancellations*"			This is item is transformed into a Corporate Issue with a rephrasing of the title
2018−6	Breach of confidentiality: accidental public exposure of sensitive data when responding to requests for public information.	3 – High	3 – High	Head of Security Unit
2019−3	Potential non-compliance with Health and Safety requirements and regulations due to lack of Health and Safety risk assessment.	3 – High	3 – High	Head of Corporate Services Unit
2019−5	Lack of physical space available on time to accommodate crucial needs of the Agency.	3 – High	4 – Very High	Head of Corporate Services Department and Head of Operations Department

2019–6	Due to the complexity of the entrusted programmes and projects, due to the specific sourcing strategy and considering the current level of the project management capabilities (resources, process compliance, supporting tools and decision-making mechanisms), the Agency might not be able to: ■ achieve its strategic objectives ■ establish, maintain and exert full control over the development of the new generation of large-scale IT systems	2 – Medium	3 – High	Programme and Project Delivery Unit and EPMO Sector and Human Resources Unit
2019–7	The Agency might be insufficiently prepared for the new Transversal Procurement paradigm that requires increased effort to manage the relationships of the different vendors involved. In addition, transition of legacy systems and the EES from framework contracts for maintenance in working order to transversal contract ecosystem might raise a cluster of risks.	3 – High	3 – High	Vendor and Contract Management Sector
2019–8	Technical support model and capacity: the significant increase of requests addressed to the Agency's technical support functions after the entry into operation of new systems may lead to severe degradation of the technical support for new and existing systems	2 – Medium	4 – Very High	Head of Systems Operations Unit and Head of Security Unit and Head of HR Unit
2019–9	Management of numerous people onboarding at once	3 – High	2 – Medium	HR Unit
2020-1	Insufficient legal checks	2 – Medium	3 – High	Operations Department and Corporate Services Department
2020-2	Capacity/ability of the Agency to check contracts and assess that it is not charged twice. Time overlapping and double charging of the same expert under different contracts could be a consequence if the Agency is unable to perform the necessary controls	3 – High	3 – High	Vendor and Contract Management Sector and Finance and Procurement Unit
2020-4	Operational level agreements – coordination of efforts in the same project/for the same system between multiple contractors in the transversal contract ecosystem	1 – Low	3 – High	Vendor and Contract Management Sector and Finance and Procurement Unit
2020-5	Retained organisation is not aligned with the outsourcing model	3 – High	3 – High	Vendor and Contract Management Sector
2020-6	Not finding the right fit for eu-LISA	2 – Medium	3 – High	Head of Human Resources Unit
2020-7	Delay with cultural transformation and leadership	4 – Very High	3 – High	Head of Learning and Development Sector
2020-8	Maintenance in working order contracts not efficient enough for end of lifecycle hardware and software	2 – Medium	3 – High	Planning and Standards Unit/Product Management Sector and Infrastructure Management Unit
2020-9	Insufficient enforcement of the existing Quality Management System might prevent it to be, as expected, a key enabling factor for the Agency to achieve its strategic objectives	3 – High	2 – Medium	EPMO Sector and Governance and Capabilities Unit

| 2020-10 | Insufficient enforcement of the existing Quality Management System might prevent it to be, as expected, a key enabling factor for the Agency to achieve its strategic objectives | 2 – Medium | 3 – High | Vendor and Contract Management Sector and EPMO Sector |

3. Progress per area

3.1. Operational business-as-usal activities

3.1.1. Activities within the scope of strategic goal 1

To continue to grow as a contributor to and implementing partner for the relevant policies in the EU.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2020 status and milestones achieved
2.1.1.3	**SIS maintenance**	SIS CS available 24/7 as per SLAs (availability, performance, etc.).	Conformity with the SIS SLA and SIS-related corporate KPIs.	**On target** SLA1 and SLA2 query types were met.	The overall performance of the SIS II central system was within SLAs and no major outages were observed.
2.1.1.4	**SIS AFIS maintenance**	To ensure SIS AFIS is available 24/7, as per SLAs (availability, performance).	Conformity with the SIS SLA.	**On target** Fingerprint search function SLA level 1 reached 99.92 % (target 95 %) and SLA level 2 reached 99.95 % (target 99.5 %)	SIS AFIS was performing within SLAs and no major outages were observed.
2.1.1.2	**VIS/BMS maintenance**	The VIS/BMS system performs as per SLA	Conformity with the VIS/BMS SLA	**On target** System availability was in accordance with the SLA	The overall performance of the VIS central system was within SLAs
2.1.1.1	**Eurodac – DubliNet maintenance**	Eurodac and DubliNet operate as per SLAs. Eurodac is continuously covered by technical support guaranteed by its suppliers.	Conformity with the Eurodac, DubliNet SLA and Eurodac-related corporate KPIs.	**On target** The system was available 99.90 % of the time, in line with last year's performance.	The overall performance of Eurodac was within SLAs.

2.1.1.15	**24/7 first-level support for the operational management of the systems**	Efficient and effective first-level support for core business systems and reliable communication for customers and stakeholders.	Service Desk Performance indicators; Annual Customer Satisfaction survey.	**On target** Customer satisfaction is measured annually.	The first-level support team continued to provide 24/7 services to customers. However, the first six-months of 2021 proved challenging, primarily due to imposed COVID-19 restrictions that limited presence on site, resulting in limited interactions both within teams and with other colleagues. The 2020 annual Customer Satisfaction Survey was conducted using slightly different approach by applying lessons learnt from previous years. As a result, the participation rate surged, exceeding 90 %. The survey also showed that despite restrictions, customers were very satisfied with the services provided by eu-LISA.
2.1.1.17	**24/7 second-level application support for the operational management of the systems**	Uninterrupted and high quality 24/7 second level application operations in the management of CBS.	Conformity with the operational SLA for applications.	**On target** Conformity with systems KPI and SLAs	Second-level support sector provided a steady service to Member States. Changes related to Brexit have been executed on SIS and Eurodac. Ireland's integration on SIS II was completed, with daily support for accessing all system features. CSI activities have been maintained: VIS migration is ongoing, with successful completion of the first step of the backup migration, enabling the reduction of backup duration from hours to minutes.
2.1.1.5	**SIS support to Member States (MS)**	Testing reports for different stakeholders confirming readiness of MS for operation with C.SIS. New MS joining SIS can be integrated at any appropriate time.	Quality and time of MS integration. Adherence to the MS testing plan.	**On target** No deviation from MS integration testing plan, based on test logs, results, summary reports and progress reports.	User acceptance tests of the SIS release 20R1 (10.0.0): 30 out of 34 Member States participated in this campaign that required three cycles of execution. It was still running at the end of the reporting period. 80 % of the campaign was successfully executed during the reporting period. The qualification campaign for the implementation of fingerprint searches on national systems was successfully completed. Support to SIS II Member States and user activities performed in the scope of national systems upgrades and free testing on playground environment.
2.1.1.6	**SIS unplanned evolutions**	SIS will implement changes as defined by the stakeholders community	Cost, schedule and scope	**Below target** Cost: green, schedule: red, scope: green Several projects were delayed due to pandemic-related restrictions of access to the data centre by the contractor.	This activity includes software updates and hardware replacement due to end of support. The following projects are included: Redhat upgrade, WMware upgrade, backup refreshment. All projects are in the process of development and implementation.
2.1.1.7	**EES maintenance**	EES central system performs as per SLA	Conformity with the EES SLA	**Activity not started**	Activity not started

2.1.1.8	**CSI maintenance**	Continuous maintenance of the CSI in accordance with the infrastructure inventory and CSI service catalogue. Upgrade or replacement of components identified as ineffective or obsolete	Conformity with maintenance SLAs CBS performance indicators	**On target** The infrastructure of CSI was fully available and tickets resolved in accordance with the SLA targets.	The VIS and SIRENEMail migration to CSI was completed. The storage migration of SIS II to CSI has been completed in the pre-production environment. The VIS backup and archive hardware migration to CSI has been completed. The central backup system for all CBSs was started in February 2021 and the implementation is on track. The central infrastructure has been maintained on a daily basis with the necessary operations of incident management, problem management and change management.
2.1.1.9	**Operational management/daily system management coordination and shared tasks**	Secure and reliable operational management of core business systems	Conformity with CBS and CSI SLAs	**On target** The different availability targets for the CBSs were all met. The underlying infrastructure did not cause any major outages of CBS.	The maintenance of the CBS infrastructure was done according to plan and in fulfilment of the respective SLAs for the availability of the CBS. This included handling of a large number of incidents, requests, problem and changes. A number of CBS releases were deployed during the reporting period.
2.1.1.10	**Enterprise architecture continuum – establishing an interoperability architecture**	Develop and agree on a target interoperability architecture for the future operational systems. Establish interoperability patterns and standards. Model data entity/business function. Develop information exchange matrix. Increase enterprise maturity level.	Conformity with the Enterprise Architecture plan	**On target** 100% conformity met	The Agency continued the implementation of the Enterprise Architecture (EA), started in 2019, following the rollout of the eu-LISA 2.0 organisation. The Agency's EA continuously ensures that the IT architectural, design and development initiatives are aligned with the Agency's IT goals, corporate strategy, technology strategy and overall objectives. The EA implements the technical and design standards decided by the Agency's architectural governance together with the policies and principles for the overall architecture implementation. Various documents (incl. studies) were prepared for the implementation of the target active-active architecture, interoperability patterns and standards (i.e., shared and re-usable components).
2.1.1.11	**CU and BCU operational activities, evolutions and improvements**	Operational integration of IT and facility management disciplines to centralise monitoring, management and intelligent capacity planning of all data centre critical systems.	Availability of data centre services	**On target** No downtime at DC1 nor at BCU were registered during the reporting period.	Daily operation through 'data centre as a service' has been ensured with no downtimes, despite pandemic-related restrictions that limited access of on-site contractors to the data centre. Data centre access rules have been established together with post-implementation reviews, enabling the tracing of interventions until due reception, as well as registering transits from project phase to operation, in accordance with ITIL processes. A DCIM tool is under deployment with a floor planner module.

2.1.1.12	**Release and deployment management activities**	Releases planned, defined, tested and implemented in the production, for all CBS	Delivery of the release plans Implementation of the releases for the CBS	**Below target** The 20_R1 release on SIS II that was planned to be deployed deployed in June was rescheduled to a later date, deviating from the original release plan. The VIS/BMS and Eurodac releases are currently on target and aligned with the release plans.	The release plans for SIS II, VIS/BMS and Eurodac have been submitted to and approved by the Advisory Groups. The 20_R3 and 21_ADP releases on VIS/BMS have been deployed as planned. Ireland's integration to SIS was successful. The 20_R1 release did not pass all the tests, postponing deployment that was originally planned for June.
2.1.1.13	**Licence management**	Continuous support for licences used by eu-LISA for the CBS	Amount of licences having their support contract managed centrally	**On target** All licences were renewed in due time.	VIS, SIS and Eurodac as well SM9 use Oracle for database processing. All necessary Oracle licenses for CBS were renewed in time.
2.1.1.14	**BCU daily operation management**	Continuous maintenance and capacity follow-up of BCU.	Availability of data centres resources (incl. cooling and power)	**On target** All activities targets where met, but the schedule is at risk for the second half of the year.	Despite significant logistical constraints due to the COVID-19 pandemic, eu-LISA staff and on-site contractors have managed to maintain the continuous operation of the BCU data centres, allowing several projects' implementations to progress. This included interventions to adjust and prepare the pre-production and production environments data centres layouts to fully comply with the required CSI standards, taking into consideration the availability of the infrastructure. The site agreement was updated to create additional buffer space for production environment. Austrian authorities have been providing monthly reporting on the availability and infrastructure, as requested.
2.1.1.16	**Network services delivery and regular operational management of the communication infrastructure contracts**	A secure and reliable communication infrastructure, and its related communication systems, operate as required, and maintenance is managed as per SLA.	Conformity with the communication infrastructure SLAs	**On target** - The average country availability for the SIS network; Jan: 100 %, Feb: 100 %, Mar: 100 %, Apr: 100 % , May: 100 %, Jun: 100 % - The average country availability for the VIS network; Jan: 100 %, Feb: 100 %, Mar: 99.999 %, Apr: 100 %, May: 100 %, Jun: 100 %	The TESTA network has been performing according to the SLA (> 99.99 % availability). At the same time, the VIS TAPs have been replaced to support the increased bandwidth for EES/ETIAS. The SIS TAPs are currently being replaced to ensure higher throughput for SISII AFIS and ensure vendor support of the components. The SISII 2nd encryption layer has been refreshed with more performant boxes to support the increased capacity stemming from SISII AFIS. The SIRENEMail and VISMail systems have been migrated to the CSI to ensure third-party and manufacturing support.

2.1.1.18	**Delivery of the information security and assurance service for the core business systems**	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	Percentage of security risk assessments done against systems (design, development, production) Number of vulnerability scans performed on the information system portfolio. Percentage of information systems for which a business impact analysis has been run at least every three years identifying critical staff. Percentage of security objectives implemented as defined per legislation.	**On target** 100 % Not available 100 % 100 %	Development or update of risk assessments and security and business continuity plans of several existing and new systems, Development of several standards part of the Information Security Management System Continuing development of the Information Security Management System Implementation of the Commission's IT Security and Risk Management (ITSRM) method, in order to align with DG DIGIT IT Security framework. In line with the Security Rules on the protection of Communication and Information Systems (CIS) (MB Decision 2019-148), running several IT Security Working Group meetings. Update of the reference security architecture based on SABSA. Review of the security requirements for the Transversal Engineering Framework.
2.1.1.19	**Implementation of the training plan for the provision of training to the Member States**	A responsive and tailored systems training programme is in place and meets fully the needs of stakeholders.	Satisfaction rate of the training participants.	**On target** The performance indicator is currently at 5.19/6, as per the new scale used since 01/01/2021. The rate is particularly satisfactory and it is mainly based on live activities, such as webinars. In 2021, no activities received less than 4, which is the minimum accepted grade.	eu-LISA delivered 6 new online courses (on SIS II, VIS, Eurodac), 1 programme (SIS Newcomers course for Cyprus) and 14 webinars (on Eurodac, Interoperability between VIS and EES, SIS II, EES, ETIAS) which can be accessed in a recorded format on eu-LISA LMS). Additionally, eu-LISA continued providing training to upcoming Schengen evaluation missions for SIS/SIRENE, which amounted to 4 webinars for the evaluations of France, Netherlands, Belgium and Ireland.

3.1.2. Activities within the scope of strategic goal 2

To maintain and extend the role of the Agency as an EU information and communication technology (ICT) centre of excellence and service provider.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2020 status and milestones achieved
2.1.2.1	**Improvements to the application lifecycle management (ALM)**	Products, tools and procedures	Time to market (in comparison with previous year)	**Below target** The definition of the Software Development Lifecycle (SDLC) guidelines and alignment with ALM is still ongoing and the implementation has not yet started.	The review and alignment of the definition of the SDLC guidelines were carried out. The result of the ALM study is intended to be taken into account for future implementation.
2.1.2.2	**Support of application lifecycle management (ALM) platform**	Maintenance throughout the years for the ALM platform (including tools, data, processes)	Platform continuously available to support the activities on ALM, no project or release activity impacted due to the availability of the tools and the data	**Activity not yet started** No support was planned for the first part of the year, as the implementation has first to be completed.	This activity has not yet started as the ALM platform is not yet implemented. The definition is still ongoing with the alignment of SDLC guidelines with the TEF Lot 1.

3.1.3. Activities within the scope of strategic goal 3

Continue growing as the principal EU ICT technology hub.

No business as usual activities for Strategic Goal 3 were planned for 2021.

3.1.4. Activities within the scope of strategic goal 4

To continue to develop an efficient and agile organisation in compliance with the EU regulatory framework.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2020 status and milestones achieved
2.1.4.1	**eu-LISA ITSM framework process run and regular reporting**	eu-LISA ITSM processes are run efficiently and effectively	Conformity with the processes KPIs	**On target** Collection of processes KPI is ongoing.	Updated KPIs for eu-LISA processes were agreed and are measured Data collection initiated for Q1 and Q2 2021 SLA ITSM KPI report

2.1.4.2	**ITSM tools improvements and customisation**	ITSM tools are up to date, fit for purpose and fit for use, addressing the onboarding of new systems, from perspectives of the users, contractors, services and process.	Cost, schedule, scope	**On target** Cost below estimation. The schedule is on track. Scope remains as planned.	Following the ITSM process review cycle, requirements have been collected and assessed from functionality and feasibility perspectives. The Agency is ready for the implementation step. The new SM9 data segmentation model enabling maintenance in working order (MWO) contractors to share SM9 tickets and configuration items has been designed, implemented and deployed on PPE. Testing phase is ongoing.
2.1.4.3	**New service and process definitions as part of the ITSM framework**	Up-to-date process and service models. Defining new services, triggered by new initiatives, processes and systems. Improving the quality of service provision to all eu-LISA stakeholders.	Cost, schedule and scope	**Below target** One month delay due to finalisation of corporate processes prioritisation list	List of corporate processes prioritisation finalised. Project kick-off meeting took place on 07/07/2021.
2.1.4.4	**Training for eu-LISA staff on operations (technical training for staff) and knowledge management**	Courses and applications provided to staff. Creation of training lab. Implementation of the Knowledge Management Policy. Technical onboarding. Creation of certification process prior to granting access to core systems.	1. Number of training activities organised; 2. General satisfaction level; 3. Increase awareness about Knowledge Management Database; 4. 100% newcomers have followed the technical onboarding programme; 5. Number of staff passing the certification process	**On target** 1. By category (external and internal training): personal competencies/non-operational: 48; operational: 19. Target value (50) achieved. 2. 83 % (2 % below target) 3. In progress. 4. In the reporting period, 13 out of 27 newcomers followed the technical onboarding programme: 48 %. Newcomers with a technical role: 5 out 11 followed it: 45 %; general onboarding programme: 100 % (27/27). Below target. 5. Certification process not implemented yet, work in progress; technical staff receive hands-on training internally and are encouraged to access and use LMS resources as part of their onboarding	- Between January and June 2021, 67 training sessions were organised. - Due to the pandemic, the installation of a training lab has not started, and all trainings were organised remotely, with remote technical labs. - Project started to make eu-LISA's online learning platform (iLearn) accessible 24/7 on any time, any place basis. Currently, a migration plan is being prepared for Q3 2021. Staff members and their spouses/partners continued to take advantage of the online language learning application, Altissia, in the first half of 2021. - Two rounds (40 sessions) of the onboarding awareness series were organised with internal experts in the first half of 2021. An update of eu-LISA's e-onboarding programme was initiated to reflect recent organisational changes, complement the existing modules (including updated information on eu-LISA's systems), and to improve overall functionalities.

3.2. Operational project activities

All project performance is monitored and reported in accordance with 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, green) traffic-light rating scale. The respective tolerances are the following:

	Cost	Schedule	Scope
Green	Total deviation ≤ 5 %	Total deviation ≤ 5 %	No deviation
Amber	Total deviation between 5 % and 10 %	Total deviation between 5 % and 10 %	Deviations allowed within the limits for schedule and cost, as far as they are aligned with the business case and approved by project board
Red	Total deviation > 10 %	Total deviation > 10 %	When the above conditions are not satisfied

Project end dates correspond to the planned dates of projects' closure.

3.2.1. Projects within the scope of strategic goal 1

To continue to grow as a contributor to and implementing partner for the relevant policies in the EU.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Start date	End date	Summary of January–June 2021 status and milestones achieved
2.2.1.1	**SIS new legal framework implementation**	The project will provide new functionalities for law enforcement and border control as defined in the new legal base of SIS.	Cost, schedule and scope	**Below target** Cost: amber, increased following the scope increase Schedule: green but at risk Scope: amber, increased following the agreement reached at PMF to add/update some functionalities.	08/2019	04/2022	The intermediate release 2 was available for the Member States from 05/04/21 to. 25/05/21 Concerning the central system simulator (CSSIM), the following versions were made available : − CSSIM for Recast delivered on 22/04/21 (IR1+ IR2) − CSSIM for SIS Recast release candidate delivered on 30/07/21 The final version CSSIM for SIS Recast will be delivered by end of August. v4.9.0.9 was submitted for approval through written procedure to the SIS II AG on 28/06/21.
2.2.1.2	**SIS return decision**	This project will provide a new return decision functionality, as defined in the new legal basis for SIS.	Cost, schedule and scope	**On target** Cost: green. Schedule: green with some risks. Scope: green.	08/2019	04/2022	Project carried out together with the SIS new legal framework implementation (see above)

2.2.1.11	**New search engine and Oracle upgrade for SIS**	Implementation of a new search engine for additional capacity on queries and alerts. Associated documentation upgraded.	Cost, schedule and scope	**Below target** Cost and scope: green. Schedule: red due to the delay of the first delivery (initial delivery date was June 2020)	04/2019	11/2021	The new search engine tests were ongoing. Some defects have been found, resulting in the need for updates and further testing. The new schedule for implementation is by end 2021.
2.2.1.4	**Implementation of SIS AFIS phase 2**	This project will provide enhancement on the functionalities already set-up in phase 1 of the SIS AFIS.	Cost, schedule and scope	**Below target** Cost, scope: green. Schedule: red, due to the hardware installation delays at BCU created by pandemic-related access restrictions.	01/2020	06/2022	The new hardware for AFIS Phase 2 is under deployment and should be finalised by the end of August for all non-production environments. The work on the ICD/DTS was merged with SIS Recast (see above).
2.2.1.5	**SIS preproduction environment move from 'in the mountain' to 'out of the mountain'**	Movement of SIS Pre-Production Environment (PPE) from 'in the mountain' to 'out of the mountain' in BCU Premises	Cost, schedule and scope	**Below target** Schedule: red, the project was delayed due to COVID-19-related restrictions at BCU. Costs, scope: green.	08/2020	07/2021	The move was performed between 17/05/21 and 21/05/21. Some additional cleaning up and decommissioning activities are under finalisation, and should be completed by the end of August 2021.
2.2.1.3	**Core SIS generic interconnection module/interface to allow SIS connections to other systems and implementation of ETIAS interconnection**	SIS updated to comply with ETIAS legal requirements: SIS central system is interconnected with ETIAS and can handle the alphanumeric searches coming from ETIAS, and replies sent to ETIAS for TCN.	Cost, schedule and scope	**Below target** Schedule: amber. The offer has not been signed yet.	09/2020	05/2022	The offer is planned for finalisation in Q3 2021, as some relevant information was missing concerning the integration layer, which will be used to connect SIS with all interoperability components.
2.2.1.7	**VIS recast development**	Modified central and national VIS systems, in line with the amended VIS legal base.	Cost, schedule and scope	**Project not started** The new VIS regulation has been delayed by one year, and the related implementation has been delayed accordingly.	09/2021	Pending the adoption of legal instruments	The impact assessment report for the service design of the VIS recast development is currently under review, with activities scheduled to start in September 2021.

2.2.1.8	**ETIAS development – implementation of ETIAS consequential amendments for VIS**	New functionalities of the VIS will be set-up	Cost, schedule and scope	**Below target** A four-month delay was needed to take into account the additional CIR requirement. However, this delay does not impact the final target of end 2022 for the entry into operations.	01/2021	12/2022	The CIR has been recently added as a mandatory component in the ETIAS consequential amendments. Consequently, the legacy VIS architecture must be refactored on the CSI before implementing the VIS-ETIAS interconnection. A feasibility study for the refactoring of the legacy VIS on top of the VIS-EES stack on CSI has been delivered by the contractor, the related impact assessment report is currently being drafted. The implementation is expected to start in October 2021.
2.2.1.10	**Technical support for a project to develop a proof of concept and a prototype of the EU online visa application portal**	The project will develop and test a prototype of the EU online visa application portal corresponding to the first phase recommendations of the study.	Cost, schedule and scope	**On target** The project is on time, quality and budget.	10/2020	07/2021	The prototype development was completed in June 2021. Afterwards, the prototype was successfully tested by MS. The evaluation of the prototype is currently ongoing. These evaluations will be reflected in the final report that will be delivered in September 2021.
2.2.1.6	**Eurodac compliance with CSI/CSS services**	Eurodac is using the available Common Shared Infrastructure (CSI) and Common Shared Services (CSS)	Cost, schedule and scope	**Project postponed** The project has been postponed for implementation together with Eurodac Recast.	NA	NA	Project has been postponed waiting for Eurodac Recast legal base adoption, as due to system architecture constrains, full implementation on the CSI will be possible only after full redesign of the Eurodac system, when biometric computations will be provided by sBMS.
2.2.1.12	**Continuation of data centre reorganisation activities**	Data centres reorganised (racks, compute and power).	Cost, schedule and scope	NA	01/2020	12/2021	This activity was conducted as part of the activity 'CU and BCU operational activities and evolutions'
2.2.1.9	**Integration of the Single Integrated Monitoring Solution with the management process, covering all the systems in operation**	Improvements to the reception of alarms through a standardised event monitoring process across all systems.	Cost, schedule and scope	**Below target** Start of the activity has been delayed due to recruitment issues.	03/2020	12/2023	The project has not yet started due to recruitment issues.
2.2.1.14	**Central systems wide area network (WAN) connections move**	Implement the WAN termination points through the new technical rooms in CU data centre.	Cost, schedule and scope	**Below target** Activity is delayed.	01/2020	12/2021	Arrangements have been made to prepare the installation of new network communication pipes by November 2021. The current activity is pending further progress prior to a revised coordination and reassessment regarding the impacted systems. Due to its scale, additional resources are needed.

2.2.1.13	**Transition to the new TESTA network**	New communication infrastructures for the SIS, VIS, EES, ETIAS All SIS, VIS, EES, ETIAS sites migrated to new communication infrastructures. Connections used by Eurodac migrated to the new Eurodomain communication infrastructure.	Cost, schedule and scope	**Below target** The evaluation, led by the Commission, took longer than expected. The new TESTA framework contract will be awarded at the end of August instead of Q1 2021.	08/2020	12/2024	Together with the Commission (DIGIT), who owns the TESTA framework contract, the Agency helped evaluate the different TESTA tenders. The evaluation report has been drafted and is now pending approval of the Appointing Authority within the Commission.
2.2.1.15	**EES project implementation**	EES Central System will become operational.	Cost, schedule and scope	**Below target** Cost: green, schedule: red, scope: green. The application software delivery was delayed from end of June to mid-October. This creates substantial risks for the Agency and the Member States testing activities due to the reduction of the time available for testing.	04/2019	02/2023	ICD version 6.1 was delivered on 3 June. Networking and application testing campaigns started. Delivery and installation of all NUIs completed. The Agency accepted the ICD for carriers on 1 June.
2.2.1.16	**EES BMS/sBMS implementation**	EES BMS system entry into operation and sBMS platform made available as BMS migration platform for eu-LISA SIS, VIS, Eurodac and future systems.	Cost, schedule and scope	**Below target** Cost: green, schedule: amber, scope: green. Schedule was slightly delayed due to external dependencies with EES.	05/2020	02/2023	First release delivered on 15 April, supporting EES Second release delivered on 25 June, supporting VIS Hardware and software installations ongoing
2.2.1.17	**ETIAS implementation**	ETIAS entry into operation within the expected deadline.	Cost, schedule and scope	**Below target** Cost: green, schedule: amber, scope: amber	08/2020	06/2023	On 21 January, the Agency awarded the contract for the development services of ETIAS (lot 2) to the ARHS-SWORD consortium. On 31 May, eu-LISA delivered the ETIAS ICD to the Member States. The technical specifications of the ETIAS watchlist were approved by the eu-LISA Management Board on 15 June. The first version of the data protection impact assessment was approved mid-June.

2.2.1.19	**ECRIS-TCN implementation**	ECRIS-TCN central system entry into operation within regulatory deadlines.	Cost, schedule and scope	**Below target** Cost: green, schedule: amber, scope: green The signature of the framework contract for lot 2 was delayed from Q2 to Q3.	01/2020	12/2022		Preparation phase completed on 21 February with the finalisation of the tender technical specifications. Project initiation phase launched on 3 March. ECRIS-TCN data protection impact assessment is being finalised.
2.2.1.20	**Integration between ECRIS-TCN and the interoperability components (CIR, sBMS, CRRS)**	ECRIS-TCN central system adapted for interoperability and entry into operation within regulatory deadlines.	Cost, schedule and scope	**Below target** Cost: green, schedule: amber, scope: green The signature of the framework contract for lot 2 was delayed from Q2 to Q3.	01/2020	12/2022		During Q1 2021, the Agency prepared the tender technical specifications and launched the competition reopening. During Q2, the submitted offers were evaluated, and the contract is scheduled to be signed in Q3.
2.2.1.18	**Implementation of the regulations on establishing a framework for interoperability between EU information systems**	Develop and implement the ESP, the CIR, the MID, the CRRS, integrated with all the components foreseen by the interoperability regulation other systems.	Cost, schedule and scope	**Below target** CRRS: Green, amber, amber Slight delay from requirements elicitation CIR, MID: Green, amber, green Some delay from the procurement process ESP: Green, amber, green Slight delay in the preparation of requirements	08/2020 06/2020 08/2020	07/2023 12/2023 06/2023		ESP, CIR, MID and CRRS have entered their implementation phase. The eu-LISA Management Board adopted the technical specifications for CRRS in March, for ESP, CIR and MID in April.
2.2.1.21	**Executing a study on the options for further enhancing the integration of advanced security monitoring and operations capabilities into eu-LISA's Operations Units and Security Unit**	Study of the options for the integration of advanced security monitoring and operations capabilities into the Operations Unit and Security Unit, including: Target Operating Model, solution architecture, reference implementation plan, training implementation plan, overview of cooperation activities (e.g. with ENISA).	Cost, schedule and scope	**Project not started**	02/2021	06/2022		The business case has been prepared and approved internally. By the end of the reporting period, the technical specifications for the specific contract were under preparation.

| 2.2.1.22 | **Implementation of CBS identity and access management service** | New identity and access management system (hardware/software) within the Common Shared Infrastructure. Update of the access management process. Automated access management workflows. | Cost, schedule and scope | **On target** Cost, schedule and scope are green. | 03/2021 | 01/2022 | The project is ongoing and 90 % completed. The business case for the implementation has been developed and approved internally. The technical specifications are being finalised. |

3.2.2. Project within the scope of strategic goal 2

Maintain and extend the role of the Agency as an EU information and communication technology (ICT) centre of excellence and service provider.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Start date	End date	Summary of January–June 2021 status and milestones achieved
2.2.2.1	**Integration of asset management with configuration management**	A system allowing a complete overview over configuration items with technical features, financial, licensing, procurement and request management. Data harmonisation between these two processes.	Percentage of assets and configuration items covered by the integration model	**Below target** In order to have a baseline, all the configuration management database (CMDB) files of contractors would need to be loaded into the central repository. This process is still ongoing, due to delays resulting from COVID-19-related access restrictions.	01/2019	12/2021	The asset configuration management policy has been defined and approved. It includes the integration link to the configuration management process. For the practical implementation, the travel and access restrictions impacted the contractors' progresses with the universal configuration management database (UCMB) maintenance. The upgrade of the UCMDB was nevertheless completed. The next planned step, adding the option to upload contractors' CMDB files, has been started but not yet completed.

3.2.3. Project within the scope of strategic goal 3

Continue growing as the principal EU ICT technology hub.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Start date	End date	Summary of January–June 2021 status and milestones achieved
2.2.3.1	**Feasibility study and implementation of a biometric toolset**	Study report followed by (potential) implementation of biometric databases usable by eu-LISA for testing purposes	Cost, schedule and scope	**Below target** Project start has been delayed	11/2021	11/2022	Project not yet started.

3.2.4. Project within the scope of strategic goal 4

Continue to develop an efficient and agile organisation in compliance with the EU regulatory framework.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Start date	End date	Summary of January–June 2021 status and milestones achieved
2.2.4.1	**Continual service improvement services and process reviews**	Up-to-date process and service models for eu-LISA, addressing the new systems requirements, new services demand and the respective tools improvements	Continuous service improvement process KPIs	**On target** No deviations recorded	10/2020	04/2021	The updated eu-LISA Service and process framework was made available to all eu-LISA personnel and is pending update by eu-LISA Management Board.

3.3. Horizontal activities

3.3.1. Corporate governance and capabilities building

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2020 status and milestones achieved
2.3.1	**Corporate planning and reporting**	Draft SPD 2022–2024 adopted by the MB. Final SPD 2022–2024 adopted by the MB and published. SPD 2023–2025 drafted and submitted for discussions to the AGs and MB. CAAR 2020 adopted by the MB and published. Interim report 2021 adopted by the MB and shared with stakeholders.	Documents and reports adopted and published in accordance with the legal requirements.	**On target** Draft SPD 2022-2024 and CAAR 2020 were adopted timely, as per regulatory deadlines.	The eu-LISA Management Board adopted the draft SPD 2022–2024 and the CAAR 2020. The Agency published the documents in accordance with the legal requirements.

2.3.1	**Governance and compliance management capabilities**	The Internal Control Framework (ICF) is implemented, monitored and assessed. The internal controls register is updated and implemented. Corporate risks are identified and the Common Assessment Framework (CAF) is implemented.	The overall assessment of the effectiveness of the ICF is conducted in the framework of the CAAR 2021.	**On target** The overall assessment of the effectiveness of eu-LISA's Internal Control Framework was conducted in the framework of the CAAR 2020.	The Internal Control Framework is implemented, monitored and assessed. The exceptions and non-compliance events register was regularly updated. A workflow was introduced in ARES.
2.3.1	**Expanding the Agency's capacity in the area of strategic management**	Agency's staff trained on enhanced strategic corporate management. New tools implemented. Improved practices.	Project implementation indicators.	NA	Activity carried out in the 'cultural change and transition to eu-LISA 2.0 operational model' activity
2.3.1	**Implementation of an enterprise quality management exercise**	All activities are implemented in accordance with the dedicated roadmap for the exercise	A self-assessment report is delivered to the Management of eu-LISA	**Below target** Execution was substantial delayed due to the complexity and length of the public procurement process.	The public procurement process for CAF consultancy and certification (CAF label) has reached the final stage (contract to be signed in July).
2.3.1	**Reports on the technical functioning and aggregating statistics**	Reports on the technical functioning of the systems (Eurodac, SIS), annual statistics (SIS, Eurodac, EES) and list of authorities (SIS, N.SIS offices and national SIRENE bureaux, Eurodac, EES) submitted to the EU institutions or published in the Official Journal of the EU.	Timely submission and publication of the reports.	**On target** All reports submitted as planned.	Annual statistics and factsheets from 2020 for SIS II and Eurodac were submitted to the EU institutions and published in March. The lists of competent/designated Authorities which are authorised to search directly the data in SIS II or Eurodac (as at March 2021) were published in May and June. Statistics recommendations (9, 10 and 23) outlined in the EDPS Eurodac Audit Report were addressed in June. The Agency is in the process of preparing the Eurodac Annual report for 2020 and the report on the technical functioning of SIS II covering 2019-2020. Both reports are expected to be finished during the second half of the year.

2.3.1	**Contributing as an observer to Schengen evaluations**	Participation in Schengen evaluation missions in SIS/SIRENE and Common Visa Policy (including VIS) areas as an observer and contribution to evaluation reports of EU Member States.	Participation of eu-LISA staff in evaluation missions upon request and contribution to evaluation reports.	**On target** The performance indicator was achieved.	Owing to COVID-19-related travel restrictions, eu-LISA decided to limit its support to the Schengen evaluations in the first half of 2021 only to desk support. This support was proposed to the SIS/SIRENE evaluation teams who conducted the evaluation of France, the Netherlands, Belgium and Ireland.
2.3.1	**Executing the annual research and technology monitoring roadmap**	Research reports published online. Organisation of industry events and contribution to the eu-LISA annual conference 2021.	Number of research reports prepared and published on eu-LISA website. Number of delegates at the Agency's two industry events and annual conference.	**On target** Research eports: the target of two reports will be achieved by the end of the year as planned. Industry Roundtable (June): the number of participants (330) exceeded expectations.	In June, the Agency held the Industry roundtable event 'Contactless Travel in Post-COVID Times: Enhancing the EU Security Ecosystem', organised online in cooperation with the Portuguese Presidency, with over 330 participants. In May, preparations for the November edition of the Industry Roundtables started with the topic 'Artificial intelligence and large-scale IT systems: Opportunities and challenges'. In March, the Agency signed the terms of reference with DG HOME for its formal engagement in the EU Framework Programme for Research and Innovation.
2.3.1	**Integrating research findings into internal projects**	Short focus reports on research and novel technologies for management, input to projects based on technology monitoring, a well-stocked library with comprehensive, up-to-date and relevant materials is available to support internal work.	Number of briefs submitted to the management and operations teams upon request. Amount of engagement with system AGs to refine priorities and feedback into system evolution work.	**On target** The work of the research team focused on other high-level priorities; in addition, no requests for technology briefs (as such) were received from the management or operations department.	The research team contributed to the identification of priorities for the EU Innovation Hub for Internal Security by developing and conducting a survey with the members of the Hub; had a leading role in the development of the operational and financial model of the Hub; A Working Group on AI was set up, the first meeting took place in May. The research team also contributed to the development of a survey for the DG HOME Expert Group on Artificial Intelligence, with the aim to elicit requirements for the EU Security Data Space for Innovation.
2.3.1	**Provision of training to the Member States on the technical use of the IT systems**	A responsive and tailored systems training programme is in place and meets in full the needs of stakeholders.	Satisfaction rate of the training sessions participants.	**On target** The performance indicator is currently at 5.19/6, as per the new scale used since 01/01/2021. No activity in 2021 received a lower rating than 4, which is the minimum accepted grade.	In the first half of 2021, eu-LISA delivered 6 new online courses (on SIS II, VIS, Eurodac), 1 programme (SIS Newcomers course for Cyprus) and 14 webinars (on Eurodac, Interoperability between VIS and EES, SIS II, EES, ETIAS) which can be accessed in a recorded format on eu-LISA LMS). Additionally, eu-LISA continued providing training to upcoming Schengen evaluation missions for SIS/SIRENE, and 4 webinars for the evaluations of France, Netherlands, Belgium, and Ireland.

3.3.2. Executive support and stakeholders' relations

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.2	**Timely administrative support for the Management Board**	Administrative and logistic support for the Management Board is maintained at a high level.	Meetings are organised and conducted as planned. The overall satisfaction rate of stakeholders, as measured in satisfaction survey.	**On target** All three Management Board meetings, scheduled for the first half of 2021, plus one extraordinary meeting, were delivered on time as web meetings.	All Management Board meetings were delivered as planned: the 26th meeting was held on 26 January, the 27th meeting on 16 March, the 28th Extraordinary meeting on 14 June and the 29th meeting on 29 June. All meetings were delivered as web meetings due to the prevailing COVID-19 situation and imposed travel restrictions.
2.3.2	**Timely administrative support for the Advisory Groups**	Administrative and logistic support for the Advisory Groups is maintained at a high level.	Meetings are organised and conducted as planned. The overall satisfaction rate of stakeholders, as measured in satisfaction survey.	**On target** All Advisory Group meetings, scheduled for the first half of 2021 were delivered on time as web meetings	All 24 Advisory Group meetings were delivered on time as web meetings due to the prevailing COVID-19 situation and imposed travel restrictions.
2.3.2	**Implementation of the External Communication and Information Action Plan**	External communication and information tasks are performed in line with the legal requirements and quality standards set for EU Institutions and Bodies and in accordance with the principles of the eu-LISA Communication and Information Strategy.	Content production follows the editorial workflow and quality standards, print and online production requirements are met, performance is in compliance with Annual External Communication Action Plan. The online visibility and engagement-level measurements. The satisfaction rate of the participants with event management. KPI 29: eu-LISA web-based visibility	**On target** On average, 7 social media posts were published per week. The number of eu-LISA followers increased since the beginning of the year: +980 on LinkedIn, +250 on Twitter, +130 on Facebook. The special communication campaign plan was implemented to provide carefully targeted coverage of eu-LISA's main stakeholder event of the 1st semester: eu-LISA Industry Roundtable, in June, notably enlarged the outreach. The coverage generated 18 000 views and over 550 interactions.	Overall, the Agency's external communication has been implemented in full alignment with the 2021 External Communication and Dissemination Plan for 2021 and the set priorities: 1. Over 30 eu-LISA specific Highlights were published on the corporate website and disseminated among the Agency's stakeholders and partners. 2. Several online campaigns were carried out and eu-LISA participated in joint actions of EU Institutions and Agencies (e.g. #EuropeDay, #DigitalEU, #JHAA response to COVID-19). 3. The Agency implemented the special communication campaign plan to provide carefully targeted coverage of eu-LISA's main stakeholder event – the Industry Roundtable.

3.3.3. Financial management, procurement and accounting

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.3	**Execution of the Procurement and Acquisition Plan**	High quality and timely procurement services in support of the Agency are provided throughout the year.	Corporate KPIs: KPI No 17: Efficiency of the procurement process. KPI No 18: Acquisition management: % of procurement projects on schedule.	**On target** KPI 17: 12.5 % Preliminary Target Range: The target level of this KPI is below 25 %. KPI 18: 63.16 % Preliminary Target Range: The target level of this KPI is defined above 60 %	The Agency's acquisition needs have been addressed in compliance with statutory obligations and within the planned budgetary framework.
2.3.3	**Timely delivery of services related to budgetary, asset and financial management**	High quality internal budgetary, asset and financial services are provided, to ensure the achievement of operational and corporate objectives. Processes are continuously revised to improve efficiency and effectiveness, wherever possible through dematerialisation.	Corporate KPIs: KPI No 10: Cancellation rate of payment appropriations. KPI No 11: Rate (%) of budgetary commitments. KPI No 12: Rate (%) of payment implementation. KPI No 15: Amount (%) of payments completed within the statutory deadlines. No major service disruption attributable to internal organisational issues.	**On target** KPI No 10: Cancellation of C8 commitments in T1 and T2: 0.41 %. KPI No 11: Consumption of C1 commitment appropriations 33.4 %. KPI No 12: Consumption of C1 payment appropriations 53.5 %. KPI No 15: 99.1% of payments completed within the statutory deadlines.	The budget implementation is followed-up in due time and all services are provided in accordance with defined standards.
2.3.3	**Maintaining the accounts of the Agency**	Provisional and final individual and consolidated annual accounts.	Timely delivery of provisional, consolidated, and final accounts to the Budgetary Authority and the European Court of Auditors (ECA).	**On target** Statutory deadlines fully met.	The 2020 individual and consolidated annual accounts of eu-LISA were duly submitted by the statutory deadline on 1 July.

| 2.3.3 | **Internal control, procedures, and audits related to finances and procurement** | Procedures and controls are developed and revised. Internal and external audits in the financial and procurement area are performed. | A comprehensive and coherent set of procedures cover the main business processes in the area of finance and procurement. | **On target**
No deviations identified. | All checklists and workflows for financial transactions are in line with the Agency's Financial Rules. The guidelines on procurement have been approved and have entered into force during Q2/2021 |

3.3.4. Human resources management

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.4	**Consolidation of the Agency following change, growth and transformation with a focus on capabilities development**	The Agency's organisational structure will reflect development and accommodate continued growth. eu-LISA will fulfil its obligations towards staff in accordance with the regulatory framework. New staff integrated in the organisation.	Corporate KPIs: KPI 13: Ratio (%) of administrative resources and ratio (%) of operational resources compared to all human resources within the Agency (staff and SNE). KPI 24: Absenteeism rate (%) within reporting period. KPI 25: Annual staff turnover (%).	**On target** KPI 13: calculated in December of each year during the benchmarking exercise. KPI 24: will be presented for the whole year. KPI 25: reached 2.1% in the first semester of 2021, remaining within the target.	1. During the first half of 2021, the Agency recruited 31 new staff members and terminated contracts with 6 staff members. One staff member retired, 4 contracts have been renewed and 5 contracts were changed. 2. The implementation of the new Implementing Rule (IR) on the prevention and management of conflicts of interests for eu-LISA staff was completed as planned (12 annexes to the rules have been created and finalised, the awareness session for staff was organised in May and the annual exercise on the submission of declaration of interests was performed). eu-LISA provided its opinion to the EU Agencies Network (EUAN) on two IRs (on teleworking and on hybrid working), which are under preparation by the European Commission. 3. The connection between SYSPER and NAP (the IT applications used by the Agency and the Commission for staff data and payroll) has been successfully enabled, and testing of the ethics module of SYSPER has been initiated.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.4	**Further development of the learning culture, developing HR function towards business partnership and strengthening staff development and retention**	eu-LISA staff take a more active role in sharing their knowledge, providing constructive feedback to colleagues and openly discussing mistakes and achievements.	Number of informal learning activities taken place. Staff Engagement survey results increased. Roadmap followed for IT tools. Corporate KPIs: KPI 27: Talent retention index. KPI 28: Staff engagement level.	**On target** Number of informal learning activities: 19 sessions Staff engagement rate: 74 % (overall score) – Response rate 86 % Response to COVID-19: 80 % (overall score) – Response rate 78 % Roadmap followed for IT tools: work in progress. Business Partnering Calls: one per month with each manager – 240 calls Retention index: 97.57 %	Two additional surveys were launched, as part of the Cultural Transformation Programme. The aim of those surveys was to map the current (As-is) and the desired (To-be) state of eu-LISA. Based on the results of the Engagement Survey, the Agency prepared a thorough action plan. Most of the tasks outlined in this plan have already been completed, and the rest are in progress. IT tools: preparation to move iLearn to the cloud and upgrade the current version. Identification of a contractor who could provide continuous support with the system (WIP). New IT tools have been adopted (e.g. Samba, etc.)

3.3.5. Data protection

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.5	**Implementation of Data Protection principles derived from EU Regulation 2018/1725**	Continuous implementation of the decision from the eu-LISA Management Board on the implementing rules relating to processing personal data in eu-LISA.	New MB decision on internal rules in accordance with article 25 of EUDPR. Number of DPIAs supported by DPO. eu-LISA's public register of processing operations updated and compliant.	**On target** New Internal Rules on Restrictions on data subjects' rights under Article 25 of Regulation (EU) 2018/1725 adopted by eu-LISA's MB on 16 April and published in the Official Journal of the EU on 7 May. The total number of records analysed during the review process is 131, 67 of which concerned old notifications transposed into records. 16 coaching sessions provided to 43 eu-LISA staff to complete this exercise. The eu-LISA DPO supported six DPIAs.	New Internal Rules on Restrictions on Data Subjects' Rights under Article 25 of Regulation (EU) 2018/1725 were adopted by eu-LISA's MB and published in the Official Journal of the EU. The DPO team supported controllers in the process of converting old notifications under Article 25 of the Regulation (EU) No 45/2001 into records under Article 31 of the Regulation (EU) 2018/1725. The DPO directly supported eu-LISA to progress with DPIAs. Focus was given to the conclusion of the ETIAS DPIA, the start of the ECRIS-TCN DPIA, the Biometric accuracy measures DPIA, the sBMS DPIA, the interoperability components (MID, CIR, ESP, CRRS), and Eurodac redesign DPIA.

				On target	
2.3.5	**Annual Work Report 2021 and reporting the intermediate status on data protection compliance to the MB**	Annual Work Report 2021 submitted for approval to the eu-LISA's MB. Intermediate status report on data protection.	Report adopted and published in accordance with the legal requirements.	Annual Work Report 2020 was delivered to the MB according to the agreed deadlines. Intermediate status on data protection compliance shared with the MB in March and June 2020. Annual Work Report 2020 was also published on eu-LISA website. In June 2021, VIS, SIS and Eurodac Supervision Coordination Groups (SCGs) were updated on state of play of the systems.	Annual Work Report 2020 submitted for approval to the eu-LISA Management Board and published. Intermediate status report on Data protection presented to the Management Board. Annual Work Report 2020 was also published on eu-LISA's website. The VIS, SIS and Eurodac Supervision Coordination Groups (SCGs) were updated on the state of play of the systems.
2.3.5	**Increasing data protection awareness**	Increased/maintenance understanding of the staff on data protection concepts and rights.	Number of data protection general awareness notifications disseminated via internal communication tools. At least two awareness sessions delivered to eu-LISA staff during the year.	**On target** 1. Training sessions - On Data Protection Day One, special session on general data protection awareness. (> 100 participants) - Two sessions on data protection for newcomers. (31 participants in February and 18 in July) - 16 coaching sessions on converting old notifications into records (43 eu-LISA staff) - Joint eu-LISA/ENISA webinar on 'Privacy and Data Protection by design' on 26 May 2021 (93 attendees, 52 registered participants from eu-LISA) 2. Newsletters: - 17 weekly eu-LISA newsletters issued, including 22 news items on data protection. - One special newsletter focusing on the data protection highlights of the first half of 2021. 3. DPO intranet - new section created on restrictions of data subject rights under Article 25 of the Regulation (EU) 2018/1725 including step-by-step instructions and template.	eu-LISA staff received training on data breaches during the Data Protection Day, and on Data Protection by Design and by Default Principle in dedicated webinar. Newcomers receive compulsory general training on the new data protection obligations, rights and penalties. eu-LISA staff is continuously updated and aware on the latest developments and news on data protection by means of the weekly eu-LISA newsletter and DPO Intranet that is constantly updated. In 2021, the DPO intranet was updated with a new section on Restrictions of Data Subject Rights under Article 25 of the Regulation (EU) 2018/1725 including step-by-step instructions and template.

2.3.5	**Annual data protection survey**	Report on the outcomes/findings and recommendations to be presented to the Executive Director of eu-LISA.	Report presented to the eu-LISA Executive Director.	**On target** The performance indicator is updated to take into account: 1. eu-LISA DPO's follow-ups on the Action Plan regarding EDPS SIS and VIS 2018 Inspection Report that was received in April 2020: - Follow-up sessions were organised quarterly and EDPS updated in Q1-2021, Q2-2021 and also in July 2021. 2. eu-LISA DPO's follow-ups on the Action Plan regarding EDPS Eurodac 2019 Inspection Report that was received in March 2021: - Follow-up sessions organised and EDPS updated in July 2021. 3. EDPS COVID Survey: - eu-LISA DPO provided assistance and support to eu-LISA's data controllers in the process of completing the EDPS COVID survey and reporting back to EDPS on 24 March 2021.	The scope of the activity was updated to take into account: 1. SIS and VIS 2018 Inspection Report by the EDPS, received in April 2020. The report contains 43 recommendations with deadlines ranging from Q2 2020 to Q2 2021.eu-LISA has transposed all EDPS recommendations into an action plan. The DPO of eu-LISA monitors the progress of its implementation. 2. EDPS 2019 audit report on Eurodac that was received in March 2021. The report contains 29 recommendations. eu-LISA has transposed all EDPS recommendations into an action plan. The DPO of eu-LISA monitors the progress of its implementation. 3. EDPS COVID survey. The EDPS launched a survey with all EU Institutions (EUIs) in order to understand how EUIs comply with the data protection requirements under Article 8 of the Charter of Fundamental Rights and Regulation 2018/17251. The Agency's DPO led this exercise and supported data controllers in completing the survey within the deadline.

3.3.6. Corporate services

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.6	**Providing legal advice to eu-LISA**	Legal advice and opinions for internal and external stakeholders and representation of eu-LISA in EU or national courts if needed.	Provision of legal advice and opinions.	**On target** Between January and June 2021, legal advice and opinion were provided in a timely manner and in compliance with the applicable legislative framework.	The Legal Sector has provided advice on topics such as staff matters, corporate governance and contract management, and ensured compliance with the legislative framework. The Sector has also been involved in the review of contract award decisions in procurement procedures above the threshold of EUR 139 000 and has drafted the relevant documents for the procurement procedures regarding the externalisation of legal services. The sector was involved in handling of the complaints under Article 90(2) of the Staff Regulations, and oversaw the litigation cases pending in front of national courts (in France) and the General Court of the European Union. In addition, the Legal Sector ensured compliance with regulatory provisions and prepared replies to seven requests and five consultations on public access to documents."
2.3.6	**Administration and maintenance of corporate IT networks and communications**	Administration and corrective, preventive, adaptive and evolutive maintenance of corporate IT networks and communications.	Availability of services	**On target** • Maintain 90% availability of the ICT Networking and Communications Services • Operationalise, from the networking and communications services perspective, the Illkirch temporary site • Resolution of 90% of the escalated tickets	The networking infrastructure remained available to the end-users. Upgrades were made to the Cisco Meeting Server infrastructure, for continuous improvement of the services. For further development of the infrastructure, a Network and Security Modernisation study was finalised. The services were fully implemented at the Illkirch site, wired and Wi-Fi LAN were fully implemented covering all areas of the site, videoconference devices were installed and configured as planned.
2.3.6	**Administration and maintenance of corporate IT systems and storage**	Administration and corrective, preventive, adaptive and evolutive maintenance of corporate IT systems and storage.	Agreed service level	**On target** • Maintaining 99.5 % availability of the email service • Continuous improvement of Corporate IT Systems • Resolution of 90 % of the escalated tickets	The service remained available to the end-users and the security vulnerabilities were mitigated. End-users and servers operating systems are being updated automatically, vital applications such as SQL, Exchange, SharePoint, etc. are being updated manually after inspection of the compatibility of the updates with the service provided. All end-user applications and software's are upgraded to the latest version in order for the Agency to take advantage of the new features. All hardware is being updated to the latest firmware and drivers in order to avoid any malfunctions of the systems.

2.3.6	**Administration and maintenance of corporate IT applications**	Administration and corrective, preventive, evolutive and adaptive maintenance of corporate IT applications.	Agreed service level	**On target** • Maintaining 90 % availability of the applications of the Agency • SPD Tool 2023 and reporting Tool 2021 in production • Resolution of 90 % of the escalated tickets to Applications team	Both Intranet and Extranet services remained always available to the end-users. The main tool supporting the planning process of the agency (SPD Tool 2023) was developed with additional features, tested and installed in ICT pre-production and production environment.
2.3.6	**Logistics and office supplies services**	All agency sites provide high quality logistics and supply services.	Agreed service level	**On target** No deviations	1. Providing high quality workspace in the new temporary building (installation of furniture, virtual visit, final user involvement) 2. Relocation of operations department teams in operational site and adapting the layout to align with the Agency's long-term space allocation strategy 3. All eu-LISA sites are covered with insurance until 09/05/2022.
2.3.6	**Management and support of mission' services**	Organisational operations for the enhancement of the effectiveness of the mission portfolio.	Number of accomplished missions, with mission requests submitted on time via mission tool.	**On target** No deviations	eu-LISA started using the Commission's mission management tool MIPS from November 2020. The transition period from ARES to MiPS was initially foreseen until the end of 2020, but was extended due to the COVID-19 situation and MIPS trainings for all staff members will be held September 2021. MiPS is now integrated with ABAC.
2.3.6	**Provision of IT support to end-users (service-desk)**	Fast, high-quality IT support whenever technology is not working properly.	End-user satisfaction	**On target** - altogether 5411 tickets have been served - the number of the ICT tickets increased by 25 % (1087 tickets more) during the first half of 2021, as compared to the same period during the last year. - average time to complete a ticket is: 2.667 days	A dedicated team has been created – 2 support technicians allocated in Tallinn – 2 support technicians allocated in Strasbourg – a dedicated team leader for handling the customers' feedback and the proposals for improvement
2.3.6	**Procurement of corporate ICT equipment, infrastructure and services**	Provide the required corporate IT hardware, software and systems and achieve project procurement best practices.	Agreed service level	**On target** The activity is 64 % completed. 75 items were identified for procurement in spring 2021. 48 items have been procured/completed. 27 items are still pending or in progress.	– Mobile phone services negotiated procedure in Strasbourg was launched and completed in due time. – Annual Microsoft licenses order was timely submitted and processed. – Annual laptops and accessories orders were launched and completed. – Annual servers and network devices maintenance orders were launched and completed. – Several computer network connection orders were launched and completed.

2.3.6	**Management of document/records/archives services**	Understanding information management – from input, classification and actual management to storage and output of information.	Agreed service level	**On target** All activities are on track. More workshops for Ares Records Management System will be organised later in the year, with a view of completing the entire revision by Q1 2022.	- Completion of the mapping of physical archive in Tallinn office - Submission of eu-LISA Records Management Policy for review - Creation of Ares learning module - Organisation of workshops needed for updating of the eu-LISA Specific Retention List, Filing Plan, Ares administrative entities - Organisation of Ares trainings for eu-LISA personnel
2.3.6	**ITIL implementation in corporate IT services**	Standardised selection, planning, delivery and maintenance of corporate IT services within the Agency.	Cost, schedule, scope	**Below target** The time spent on selecting and contracting an expert has delayed the start of the project.	The project did not start yet. The Agency completed the selection of the ITIL expert that will be the key resource for the project.
2.3.6	**Creation of a new eu-LISA website**	Standardise and align the new website with the future ETIAS and EES related websites and increase awareness for the Agency.	Cost, schedule, scope	**On target** The project is on track and is expected to be implemented within the agreed time, scope, and budget	The first stages of the project have been planned and an internal project team appointed. The main project initiation documentation were produced (project scope definition, initial project schedule, high-level requirements). A workshop was held to finalise the approach for the project. The Agency also initiated the preparation of the procurement.
2.3.6	**Facility operations and services**	Necessary undertakings to preserve effective services at all Agency locations as regards facilities management.	Conformity to applicable standards.	**On target** The environmental KPI is expressed in tons of CO2 emissions. The data collected in 2020 is used as the baseline reference. The data sources concern energy consumption, water consumption, paper consumption, and the weight of solid waste. In 2020, the Agency's greenhouse gas emissions (CO2) stood at 341.04 tons.	The facilities were adapted to ensure social distancing, increased cleaning and disinfection of the premises was introduced on regular basis. The Agency has put in place an internal environmental management system (EMS), which complies with the Eco-Management and Audit Scheme (EMAS). The eu-LISA's environmental statement report created in 2021 (reporting year 2020) outlines details on objectives, monitoring and progress. It includes a summary table outlining the sources of the impact, action plans, and performance indicators for all environmental identified aspects. Due to the end of the HQ's building warranty period, all necessary warranty works have been completed. The lease contract for the Brussels office has been extended until 31/12/2021 due to the delay of the new joint offices project led by Frontex.

2.3.6	**Implementation of a document management system for eu-LISA**	Central repository for documents within eu-LISA; Defined/agreed documents retention policy. Documents and access permission management processes. Documents version, authentication and classification control. Access level permissions defined and in place.	Documents and Records Management system are available to the Agency.	**On target** The project is on track and within the agreed tolerances. All agreed deadlines have been met.	During the reporting period, all necessary resources for the DMS project were acquired, documents prepared and activities completed, incl. onboarding of new personnel, project schedule, as well as materials for workshops, presentations and surveys, etc. Additionally, the Agency organised workshops, collected high level business requirements, and analysed feedback. By summer, eu-LISA had also prepared and finalised the procurement documentation.
2.3.6	**Corporate IT infrastructure and applications migration to cloud**	Corporate IT infrastructure hosted in DIGIT's cloud. Corporate applications hosted in DIGIT's cloud.	Corporate IT Infrastructure successfully migrated to the cloud. All applications successfully migrated to the cloud.	**Below target** Digital Workplace Study completed as planned. Cloud solution project delayed by the time required to contract the necessary expertise.	During the reporting period, the Agency conducted a Digital Workplace Study, and selected a Cloud Solution Architect
2.3.7	**Second extension of eu-LISA operational premises in Strasbourg**	The second building extension of the Agency in Strasbourg will deliver the following facilities: – new data centre – new premises – new car park – new guard posts.	Costs, schedule and scope	**On target** Project is in the planning phase: Project Board approved the revised project baseline.	In January, the Project Board decided a contest procedure for the building design call for tender. From January to March onwards, strong efforts were undertaken together with the Project Board to revise the scope and to reduce the financial envelope estimated by the programmer. The procurement options for the designer call for tender were actively discussed from March to May with the Finance and Procurement Team. The Project Board decided in May the following procurement options: 1) restricted competition, 2) proportional distribution of the winners' prizes 3) breakdown of prices 4) negotiated procedure. The Project Board approved the new project timeline with an acceptance of the buildings in Q2 / 2028 at the end of June.

3.3.7. Horizontal security activities

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.8	**Operating, planning and developing the protective elements of the security and continuity management;**	The Agency adopts appropriate security measures based on the risk assessment, EU legislation and best practices.	Protective security measures comply 100% with the risk assessment, eu-LISA's rules and regulations and relevant ISO standards. Corporate KPI 1: Percentage (%) of security objectives implemented as defined per legislation. Corporate KPI 2: Number of emergency drills/security and business continuity-related exercises performed annually.	**On target** Based on the Agency's continuous security risk management process, the protective security measures addressed the main relevant security risks, maintaining them at an acceptable level. The specific measures implemented comply 100 % with the legal requirements. Drills are planned to be executed in Q3 and Q4.	The eu-LISA personnel security clearance process was organised for staff members and SNEs (newcomers or renewal). The process for verifying and validating the fulfilment of security requirements for eu-LISA contractors has been updated, improved and implemented, in order to ensure a more effective and efficient approach, while also addressing the needs arising from the continuously increasing number of contracts. Operational and physical security system were maintained on eu-LISA's premises in Strasbourg, Tallinn and Brussels. The Agency prepared the implementation of the security measures to establishe for the temporary premises in Strasbourg, and started the implementation of relevant controls (second phase scheduled to be finalised by November 2021). The Agency ran continuous security risk assessment regarding the protective element (i.e. physical security, personnel security, etc.) for eu-LISA premises, personnel, information and other assets.

2.3.8	**Delivering the information security and assurance service for the corporate infrastructure**	The Agency adopts appropriate security measures based on the risk assessment, EU legislation and best practices.	Percentage of security risk assessments done against systems (design, development, production): Number of vulnerability scans performed on the information system portfolio: Percentage of information systems for which a business impact analysis has been run at least every 3 years identifying critical staff: Percentage of security objectives implemented as defined per legislation: Number of cyber security exercises:	**On target** 100 % not available 100% 100% 1	Adoption of the Corporate IT Security Plan Development of several standards part of the Information Security Management System Extension of the CERT-EU Service Level Agreement Completion of a Security Exercise with CERT-EU Continuing development of the Information Security Management System
2.3.8	**Maintaining and improving the security policy framework and delivering reports;**	Organisation of security and business continuity-related meetings with stakeholders.	Organisation of Security Officers Network (SON) and other security and business continuity related meetings.	**On target** Meetings organised as planned	The network of Business Continuity Officers regularly shared knowledge, risk assessments and good practices on managing the safety of staff and the resilience of the different organisations in support of their mandate. In May, the 13th meeting of Security Officers Network took place, focusing on the EU threat landscape and the security of the large-scale IT systems managed by eu-LISA. The Agency also participated in the Inter-Institutional Security Awareness and Training Working Group aimed at sharing best practices in the security awareness field.

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.8	**Operating, planning and developing the business continuity/disaster recovery for the large-scale IT systems**	Specific Business Continuity (BC)/Disaster Recovery controls are implemented as needed for the large-scale IT systems.	The BC controls cover all the large-scale IT systems managed by eu-LISA and the dedicated network infrastructure.	**On target** (1) Each of the CBS have in place specific business continuity plans (BCP) and the necessary BC measure are in place as well. (2) All the BCPs have been tested in the last year and a new exercise is being prepared to test the corporate BCP and other specific BC measures for 2021. (3) A tailored plan for running BC trainings and awareness sessions is in place for 2021 and the activities are scheduled to be executed before the end of the year.	The SIS and VIS BCPs were adopted by the Management Committee of eu-LISA in June 2021. The Eurodac BCP update is being prepared, for a planned adoption in 2022. The BCP for the SIS and VIS communication infrastructure is being prepared, and scheduled to be presented to the MB for adoption before the end of 2021.

3.3.8. Enterprise project management office (EPMO) activities

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.9	**Developing and deploying processes and training programmes, evaluating projects, performing project quality assurance reviews, appraising processes, and reporting on project performance**	EPMO deliverables, as described in the EPMO Charter	Achieving objectives agreed in the EPMO Roadmap	**On target** Progress recorded as planned.	Decommissioning of the existing project management tool and replacement by the PPM solution 'Planview', for time reporting and monitoring of projects activities. Presentation made to the Management Committee of the results of compliance checks performed at the end of 2020, with definition and follow-up of an improvement action plan (8 actions identified). During the first semester of 2021, primary focus was on ensuring the existence and compliance of the required project management (PM) artefacts. Comprehensive review of PM artefacts templates in order to improve the value and the quality of the data provided. The new versions were launched in June 2021. Delivery of onboarding sessions to newcomers (2 sessions during the first semester) and recurring introduction sessions on Planview, with focus on time reporting features.

2.3.9	**Official appraisals based on Capability Maturity Model Integration (CMMI) model**	Appraisal report of SCAMPI (Standard CMMI Appraisal Method for Process Improvement) Class A (official appraisal)	Cost, schedule, scope	**On target** The project is currently on time, within budget and no scope changes have been introduced so far.	The project was re-scheduled and officially launched in June. The first phase 'Plan and preparation' has been completed on schedule, and all the related deliverables have been approved:
2.3.9	**Implementing cultural changes and transition to the eu-LISA 2.0 Operational Model**	Phase 1: Roadmap; Phase 2: Implementation and change sustaining	Cost, schedule, scope	**Below target** The project has fallen behind schedule due to unexpected shortcomings on the side of the contractor, as well as limited internal resources.	During the first 6 months, 4 work packages have been initiated. The cultural diagnosis phase focuses on mapping the aspired culture and describing the current culture of eu-LISA. This is done via staff workshops, surveys and cultural ambition workshops with the eu-LISA management. Regarding the operating model work stream, an interim report on existing organisation capabilities has been completed.
2.3.9	**Setting up the eu-LISA Project Management career centre.**	Established capabilities required to operate a professional development centre for all job profiles related to project, programme, and portfolio management in eu-LISA.	Number of job profiles being supported by training programmes Number of defined careers / certification paths Number of individuals trained.	**On target** The project was launched just before the end of the reporting period.	The project start has been re-scheduled and officially started in June. During the reporting period, the main focus was on project set-up work and other necessary preparations.

3.3.9. Internal audit

SPD ref.	Annual activity	2021 output	Performance indicator (PI)	Status of the PI	Summary of January–June 2021 status and milestones achieved
2.3.10	**Implementation of the annual internal audit plan**	Internal controls are monitored. Business process controls are reviewed for effectiveness. Self-assessment checks are performed. Deficiencies are identified and reported. Audit initiatives are planned, scoped and executed.	Percentage of compliant processes meeting performance targets. Percent of processes being objectively reviewed. Number of critical and serious internal control breaches. Number of critical non-compliance issues identified per year. Corporate KPI 23: (A) Percentage (%) of audit recommendations implemented within stipulated deadlines and (B) number and timeline of outstanding recommendations.	**Below target** The first two planned KPIs cannot be computed yet because they depend on the finalisation of the audit risk assessment for 2021. Until then, the KPIs for IAC are as follows (see separate IAC reporting to Audit Compliance and Finance Committee of the Management Board): Percent of audit plan delivered during the year: 81 % (target 80 %) => on target; Audit reviews completed within budget and by agreed target date: 50 % (target 80 %) => below target; Staff training hours / year: 63 % (target 80 %) => below target; KPI #23.A= 69% of which: Critical = N/A; Very Important = 71% (90% planned) => below target; Important = 67% (80% planned) => below target; KPI #23.B: zero recommendations overdue by six months => on target; one recommendation overdue by six months to one year => on target; Seven recommendations overdue by over one year => below target.	The IAC delivered the following engagements from the Internal Audit Plan for 2021: #5. Review of the management of ABAC access rights (assurance); #6. Legality and regularity of 2020 Accounts - final (coordination); #9. Monitoring of audit recommendations I (assurance and coordination). In addition, the IAC made progress with the implementation of the following engagements: #4. ETIAS project: audit risk assessment and assurance plan (assurance); #12. Monitoring of Internal Control framework implementation and IAC audit risk assessment (coordination).

4. Budget implementation

4.1. Overview

This section outlines the consumption of commitment and payment appropriations of eu-LISA's budget in the first semester of 2021, covering the period from 1 January to 30 June 2021.

In accordance with the budgetary principles outlined in Chapter 2 of the Agency's Financial Rules, appropriations cover the requirements of a specific financial year and may be used only during that year (i.e. from 1 January to 31 December). However, commitments made against differentiated appropriations (i.e. operational expenditure) remain valid after the end of the financial year, and appropriations may be carried over under certain conditions, reflecting their multiannual nature.

In this chapter, the following codes are used to identify the fund source of appropriations:

- C1: Appropriations for the year (i.e. initial budget + amending budget ± transfers). These are 'fresh' appropriations, entered in the budget at the start of the financial year. These appropriations can be transferred. They can be supplemented by appropriations from an amending budget.

- C2: Non-automatic carryovers of appropriations;

- C3: Commitment appropriations carried over to be committed before 31 March;

- C4: Appropriations from internal assigned revenue of the year;

- C5: Appropriations from internal assigned revenue (carried over);

- C8: Carry forward of commitments (differentiated and non-differentiated) and payment (non-differentiated) appropriations.

When commitments are made against non-differentiated appropriations and the corresponding amounts have not been paid in full, the payments appropriations corresponding to the commitment outstanding amount are carried over automatically to the next financial year only. In this case, the fund source is then changed from C1 to C8. The appropriations are therefore carried over to the following year and the corresponding commitments are carried forward.

In the case of differentiated appropriations against which the amounts committed have not yet been paid, the commitments are carried forward automatically, as are the corresponding commitment appropriations (i.e. fund source C8). The payment appropriations, on the other hand, are not carried over, and other sources of funding will have to be found for the following year (i.e. fund source C1);

- C9: Carry forward of commitments without the corresponding payment (non-differentiated) appropriations;

- R0: appropriations from external assigned revenue (of the year and carried over).

4.2. Budget transfers

During the reporting period, the following internal transfer operations were performed under Article 26(1) of the Agency's Financial Regulation. The rationale for the transfers was to ensure optimal budget allocation of commitment and payment appropriations.

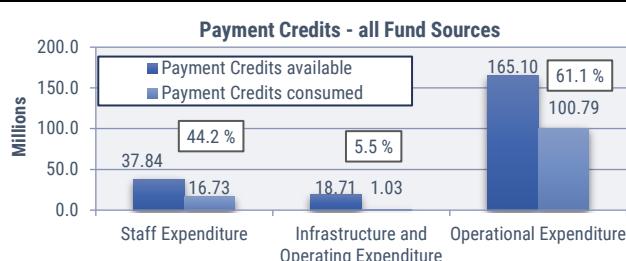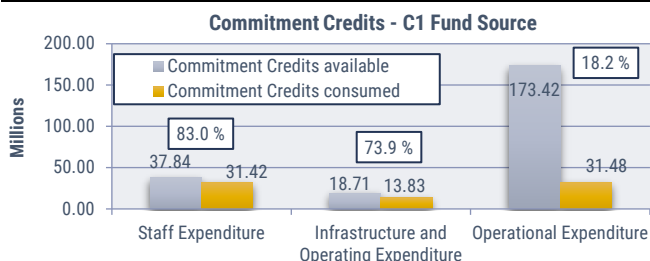**Table 3:** BUDGETARY TRANSFERS JANUARY–JUNE 2021 (in EUR)

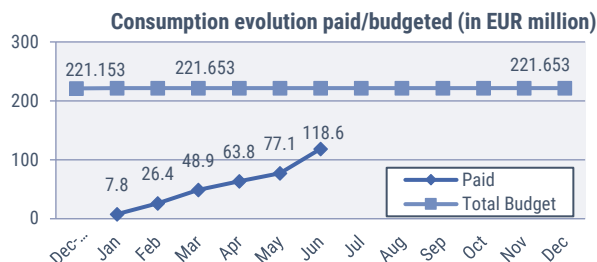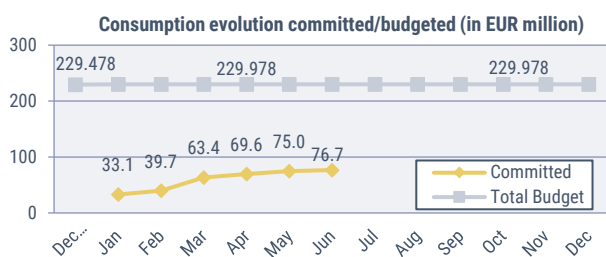| Budgetary Transfer No.	Reference	Date	Budget Line	Commitment Appropriation	Payment Appropriation
1	LIS.3660	26/01/2021	B03003 Interoperability	0.00	-10 000 000.00
			B03010 Wide area networks	0.00	-7 000 000.00
			B03100 SIS II projects	0.00	13 050 000.00
			B03102 SIS II recast	0.00	3 000 000.00
			B03111 VIS/BMS operational maintenance	0.00	-2 000 000.00
			B03120 EURODAC projects	0.00	700 200.00
			B03121 EURODAC operational maintenance	0.00	-7 000 000.00
			B03130 EES projects	0.00	19 555 800.00
			B03131 EES operational maintenance	0.00	-4 240 000.00
			B03140 ETIAS projects	0.00	9 000 000.00
			B03141 ETIAS operational maintenance	0.00	-14 066 000.00
			B03810 External Support	0.00	-1 000 000.00
2	LIS.3679	26/03/2021	A01110 CA salaries and allowances	-3 000 000.00	-3 000 000.00
			A02700 External Support Services	3 000 000.00	3 000 000.00
			B03003 Interoperability	0.00	-8 000 000.00
			B03110 VIS/BMS projects	0.00	-1 000 000.00
			B03130 EES projects	0.00	9 000 000.00
3	LIS.3683	15/06/2021	A02000 Expenditure for premises	300 000.00	300 000.00
			A02200 Other Technical Equipment and Installation	-120 000.00	-120 000.00
			A02210 Furniture and Office Equipment	-97 000.00	-97 000.00
			A02300 Office Supplies	-63 000.00	-63 000.00
			A02400 Postage	-20 000.00	-20 000.00
			B03001 System security and business continuity	0.00	-600 000.00
			B03002 Back-up site – running costs	0.00	-100 000.00
			B03003 Interoperability	0.00	-9 600 000.00
			B03010 Wide area networks	0.00	-2 000 000.00
			B03100 SIS II projects	0.00	-2 500 000.00
			B03101 SIS II operational maintenance	0.00	-1 500 000.00
			B03102 SIS II recast	0.00	3 000 000.00
			B03110 VIS/BMS projects	0.00	-4 500 000.00
			B03130 EES projects	0.00	26 650 000.00
			B03150 ECRIS projects	0.00	-6 000 000.00
			B03811 Consultancies and studies	0.00	-500 000.00
			B03820 Advisory Groups	0.00	-1 000 000.00
			B03821 Other meetings and missions	0.00	-150 000.00
			B03830 Operational learning and development	0.00	-200 000.00
			B03831 Training for Member States	0.00	-1 000 000.00

4.3. Overall implementation

The dashboard below provides an overview of the Agency's budget implementation by month and by performance indicators as at the end of June 2021.

Budgetary and Financial reporting 01/01/2021 – 30/06/2021				
BUDGET IMPLEMENTATION				
	Administrative budget		**Operational budget**	
	Title 1: Staff Expenditure	Title 2: Infrastructure and Operating Expenditure	Title 3: Operational Expenditure	**Total Budget**
COMMITMENT CREDIT CONSUMPTION				
Consumption of Carried Forward Commitment (C8) Credits (% L2 on L1)			51.5%	
Consumption of 2021 Commitment (C1) Credits	83.0 %	73.9 %	18.2 %	33.4 %
PAYMENT CREDIT CONSUMPTION				
Payment consumption (C1)	44.2 %	5.5 %	61.1 %	53.5 %
Payment consumption (C8)	35.4 %	64.2 %		62.7 %

Budget consumption – C1 Appropriations

Commitment Credits - C1 Fund Source

Payment Credits - all Fund Sources

Monthly evolution of voted Budget – C1 Appropriations

Consumption evolution committed/budgeted (in EUR million)

Consumption evolution paid/budgeted (in EUR million)

PERFORMANCE INDICATORS						
	Total number		*out of which delayed*			
NUMBER OF TRANSACTIONS	2021	*2020*	2021	*2020*	2021	*2020*
Total Payments processed (YTD)	**915**	**1 281**	**8**	**74**	**0.9 %**	**5.8 %**
out of which Payments with time limit 30 days	870	*1 143*	8	*58*	0.9 %	*5.1 %*
out of which Payments with time limit 60 days	17	*120*	0	*16*	0 %	*13.3 %*
Total Commitment processed (YTD)	**409**	**426**				

out of which for administrative budget	289	*273*	
out of which for operational budget	120	*153*	
Total Number of Invoices with Assets (YTD)	**58**	*46*	
to which number of registered asset items refer	3 337	*14 492*	
Monthly evolution of transactions processed			

Number of payments processed

Number of L2 Commitments
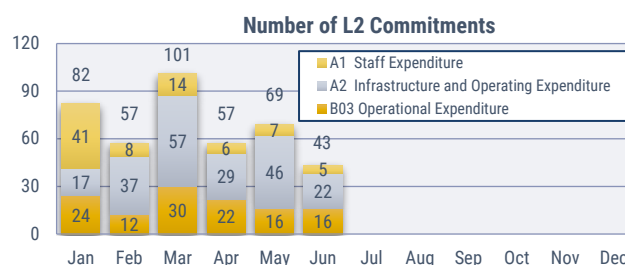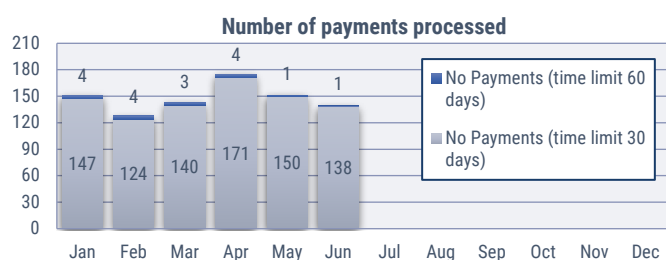
TIME-TO-PAY	Average number of payment days	% within contractual time limit
All Payments	**14.7**	**99.1 %**
Payments with time limit 30 days	14.7	99.1 %
Payments with time limit 60 days	13.9	100.0 %

Monthly evolution of Time-to-Pay

Payments within time limit of 30 days

Payments within time limit of 60 days
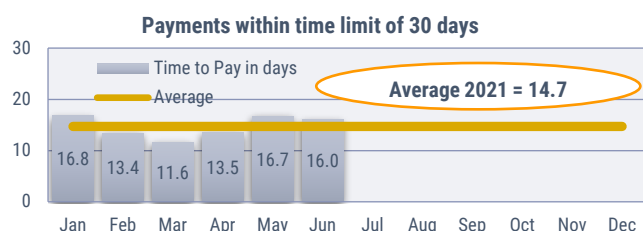
The table below provides a detailed overview on the implementation of commitment and payment appropriations by title and fund source.

Title	Official Budget Title Description	Fund Source	Commitment				Payment			
			Commitment appropriation transaction amount (1) (EUR)	Executed commitment amount (2) (EUR)	Credit not used (3=1-2) (EUR)	% imple-mented (4=2/1)	Payment appropriation transaction amount (5) (EUR)	Executed payment amount (6) (EUR)	Payment credits available (7=5-6) (EUR)	% imple-mented (8=6/5)
A-1	Staff expenditure	C1	37 844 000.00	31 419 288.55	6 424 711.45	83.02 %	37 844 000.00	16 731 217.60	21 112 782.4	44.21 %
	Staff expenditure	C8	541 086.39	537 498.99	3 587.40	99.34 %	541 086.39	191 403.69	34 9682.7	35.37 %
A-1		Sum	38 385 086.39	31 956 787.54	6 428 298.85	83.25 %	38 385 086.39	16 922 621.29	21 462 465.1	44.09 %
A-2	Infrastructure and Operating Expenditure	C1	18 714 000.00	13 826 095.80	4 887 904.20	73.88 %	18 714 000.00	1 034 777.33	176 79 222.67	5.53 %
	Infrastructure and Operating Expenditure	C8	10 216 565.91	10 175 578.02	40 987.89	99.60 %	10 216 565.91	6 557 679.94	3 658 885.97	64.19 %
A-2		Sum	28 930 565.91	24 001 673.82	4 928 892.09	82.96 %	28 930 565.91	7 592 457.27	21 338 108.64	26.24 %
B0-3	Operational Expenditure	C1	173 420 000.00	31 482 535.38	141 937 464.62	18.15 %	165 095 000.00	100 794 807.53	64 300 192.47	61.05 %
	Operational Expenditure	C3	56 285 535.89	56 285 535.89	0	100 %	0		0	
	Operational Expenditure	C8	356 889 214.79	347 066 438.58	9 822 776.21	97.25 %	0		0	

		Commitment appropriation transaction amount	Executed commitment amount	Credit not used	% implemented	Payment appropriation transaction amount	Executed payment amount	Payment credits available	% implemented
Operational Expenditure	R0	16 466 512.88		16 466 512.88		16 466 512.88		16 466 512.88	
B0-3	**Sum**	**603 061 263.56**	**434 834 509.85**	**168 226 753.71**	**72.10 %**	**181 561 512.88**	**100 794 807.53**	**80 766 705.35**	**55.52 %**
TOTAL	**Sum**	**670 376 915.86**	**490 792 971.21**	**179 583 944.65**	**73.21 %**	**248 877 165.18**	**125 309 886.09**	**123 567 279.1**	**50.35 %**

The table below shows an overview of implementation by fund source.

Fund Source	Commitment				Payment			
	Commitment appropriation transaction amount (1) (EUR)	Executed commitment amount (2) (EUR)	Credit not used (3=1-2) (EUR)	% implemented (4=2/1)	Payment appropriation transaction amount (5) (EUR)	Executed payment amount (6) (EUR)	Payment credits available (7=5-6) (EUR)	% implemented (8=6/5)
C1	229 978 000.00	76 727 919.73	153 250 080.27	33.36 %	221 653 000.00	118 560 802.46	103 092 197.54	53.49 %
C3	56 285 535.89	56 285 535.89	0.00	100.00 %	0.00		0.00	
C8	367 646 867.09	357 779 515.59	9 867 351.50	97.32 %	10 757 652.30	6 749 083.63	4 008 568.67	62.74 %
R0	16 466 512.88		16 466 512.88		16 466 512.88		16 466 512.88	
	670 376 915.86	**490 792 971.21**	**179 583 944.65**	**73.21 %**	**248 877 165.18**	**125 309 886.09**	**123 567 279.09**	**50.35 %**

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