



ICTAC Annual Report 2018

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1 Introduction

The Information and Communications Technologies Advisory Committee (ICTAC) is a professional network constituted by the Heads of ICT of the EU agencies and their representatives. As stated in the ICTAC Terms of Reference, the mission of ICTAC is to promote inter-agency cooperation on issues of common interest in the area of Information and Communication Technologies. ICTAC operates under the auspices of the EU Agencies Network. This document reports on the annual activities of ICTAC during 2017.

2 Chairmanship of ICTAC

The Terms of Reference of ICTAC (as endorsed by the Heads of Agencies network) in general aligns the chairmanship of ICTAC with that of the Troika of the EU Agencies Network. Exceptionally in 2018, ICTAC followed a different handing-over with respect to the other networks: during the period from 1 March 2018 to 31 August 2018, the Chairmanship of ICTAC was continued by the European Food Safety Authority (EFSA), represented by Antonio Ciccarelli and Paul Devalier, while from 1 September 2018 to 28 February 2019 ICTAC is being chaired by Cedefop, represented by Lazaros Tossounidis. As regards the composition of the Troika, EFSA was supported by the European Border and Coast Guard Agency (FRONTEX - represented by Mr. Francois Laruelle) while, starting from 1 September 2018, ECDC (represented by Francois Mestre) has joined the Troika chaired by Cedefop. The ECDC co-chairing is currently scheduled to start on 1st March 2019.



3 ICTAC Meetings and Workshops 2018

The mission of ICTAC is to promote inter-Agency collaboration through knowledge and experience sharing and exchange of good practice. While ICTAC takes advantage of a number of electronic communication tools, such as the inter-agency extranet (<http://euagencies.eu>) and Yammer for collaboration, an effective way of ensuring collaboration across agency representatives and purposeful exchange of best practice is a physical meeting twice per year dedicated to this purpose. ICTAC meetings are forums of intense exchange and rich interaction. They have gained enormous traction among the wider ICT community of the EU Institutions and bodies and are highly regarded, even by vendors and service providers. Physical meetings allow for intense and precise communication, necessary for collaboration, and so add value to the network as a whole and to each member Agency.

The 2018 meetings were hosted by Frontex in Warsaw on 17-18 May and by EMSA in Lisbon on 18-19 October. The ICTAC meetings confirmed the success achieved in 2017 in terms of interest and participation also from the other EU institutions, while they continued to produce tangible results in terms of synergies and efficiencies, in coordination with the other networks and the overarching EUAN Work Programme. More than 50 participants attended both the meetings with an Agencies representation of 95% and with participation also of Executive Agencies, DIGIT, the European Council, the European Parliament, the European Data Protection Supervisor, and other European organizations such as the European Space Agency.

Broad co-operation is fundamental across EU bodies in order to be able to execute and deliver projects of significant value contributing to the EUAN strategy. In the case of ICT, where common standards are vital for interoperability, and where high cost and risk are the norm, it is also necessary to extend ICTAC collaborative efforts to include the European Commission (primarily DIGIT) but also other EU institutions. This is especially true where they can take a leading role in setting pan-European standards.

The main outcomes of this cooperation and coordination activities are:

- The active involvement in the Pan-European Network working group and steering group for the definition of the new generation secure communication network for the EU institutions and the EU public administration
- The collaboration with the CERT-EU steering group for the definition of a new service catalogue and a new pricing model for the future cyber-security services
- The active participation in the inter-institutional Working Group for the definition of the new DIGIT Cloud Services Call for Tender (Cloud II)
- The parallel active participation in the inter-institutional Working Group for the definition of the GOV SEC Risk Assessment tool



- The collaboration started with DIGIT in the definition of a future EU “Data Lake” model
- The continuous collaboration with the CII (Comité Inter-Institutionnelle Informatique) that allows permanent flows of key strategic orientations (e.g. Microsoft contract, Digital Workplace, common Cloud policy), solutions implemented by and across EU institutions (e.g. common formats and standards, secure e-mail, sharing of infrastructures e.g. new pan-european network ...), joint activities (e.g. Digitec). ICTAC participation in this important (forty years old committee) through a permanent delegate (Mr L.Tossounidis) strengthens cooperation with the core EU institutions; it confers visibility to the decentralized EU Agencies as well as an opportunity for the agencies to voice their views and interests.

In addition to the results at inter-institutional level, a considerable effort has been made during 2018 in the joint work with the parallel EUAN sub-networks (e.g., PDN, NAPO, HoR, HoA). It is worth mentioning the collaboration with the PDN network in the design of a methodology to measure benefits and KPIs in the EU Agencies shared services area.

Last but not least, ICTAC has provided a constant coordination with the EUAN team, including an external IT support in the establishment of the new Shared Service Office in Brussels.



4 Report on 2018 ICTAC Deliverables

As per the ICTAC Annual Work Programme 2018, the ICTAC activities for 2018 have been organized in accordance with the multi-annual approach defined in 2016, focusing activities on 4 main areas:



The activities have been carried out in line with the priorities indicated by and agreed with the Heads of Agency network (HoA), the Head of Resources network (HoR) and the EUAN.

The following sections describe the progress and achievements made in the 4 areas in 2018.

4.1 Digital Shared Services

Objective: As already widely discussed in the context of the inter-agency collaboration, the main objective of the Digital Shared Services initiative is to improve synergies and efficiencies by maximizing the adoption of common initiatives. Synergies and efficiencies can be achieved either leveraging on the adoption of EC centralised services (e.g., ABAC, Sysper for EU Agencies, e-PRIOR, EU-Login, MIPS, etc.) or by leveraging on the cloud paradigm, implementing specific ICT services to be shared among Agencies. This objective is perfectly aligned with the CoA findings on the “Diverse IT landscape at Agencies”.

What has been achieved: The alignment of the EUAN sub-networks and the good level of collaboration established with DG-HR and DIGIT showed in 2018 a sensible progress in the roadmap for the implementation of centralised shared services between Agencies and the Commission.

The **Sysper for EU Agencies** is currently completing the testing phase. The first group of agencies is expected to be connected with the basic modules starting from February 2019.



The increasing adoption of Sysper II is expected to contribute to the reduction in the number of different HR software solutions used by the Agencies, converging towards a single, centralized shared service.

The **Disaster Recovery** shared service is now mature, providing also 2 types of solutions for Agencies having the need to implement it:

- A hosting approach provided by EUIPO (mutual disaster recovery) already adopted by EFCA, ACER, ENISA, CEDEFOP, EU-OSHA, SatCen, EUROFOUND and F4E
- A cloud-based Disaster recovery as a Service solution, implemented by EFSA in the community cloud and available also for all the other Agencies (blueprint, data replication model).

Two parallel proofs of concepts have been completed as part of the **Secure email** initiative, both ready to be adopted by other Agencies:

- The pilot usage of a centralized directory to share addresses and digital certificates performed by EMSA with DIGIT.
- The EFSA positive test of the DMARC DNS record modification for the implementation of a more secure email exchange standard, performed in collaboration with CERT-EU.

The implementation of a **Shared Workflow repository** has been launched. Two Agencies, Eurofound and EFCA, already made available their workflows developed on the basis of FlowForma software, ready to be adopted by other Agencies.

"ICTAC has also examined the possibility to adopt a common Project Management – ABB/ABM tool. A proposal received from the market was considered not to be cost effective, while an initiative for a possible implementation of a new solution based on cloud services has been proposed by ERA and FRA. Other Agencies like EUROFOUND use similar technologies."

Other achievements to mention are the implementation of a **Virtual Desktop** environment in the Community Cloud, currently used by EFSA and EMA, the analysis undergone for the implementation of a **Data Analytics services** in the community cloud as well as the initiative for a shared **24x7 Cyber-attack monitoring service** (see also par. 4.4).

As a parallel initiative coordinated with the EUAN and the HoR network, ICTAC has actively participated in the implementation of an interagency EU Agencies job vacancy website, currently being integrated within the EU Agencies portal (<https://euagencies.eu/>).

With the aim of procuring common services to aggregate demand and reduce costs an inter-agency call for tenders for mobile services was organised (lead by EUIPO) but has turned out to be unfruitful. ICTAC is keen to capture the lessons-learned from this experience and use this knowledge in subsequent tender.



Main results:

The Digital Shared Services is now a reality with a rich portfolio of growing and evolving services. Tangible results are:

- Convergence to Sysper4EU: more agencies will be joining this shared service
- Two types of Disaster Recovery solutions
- Two solutions tested, proven and available for implementing a more secure email exchange service
- The implementation of a Virtual Desktop (VDI) service now available in the Community Cloud. It can offer operational flexibility, more secure access, transparent service (decoupling desktop from a given physical infrastructure).
- The creation of a shared and reusable workflows portfolio
- The implementation of the new EU Agencies Job Vacancy website.



4.2 Digital Workplace

Objective: The 2018 ICTAC activities continued also in the identification of common initiatives in the adoption of emerging Digital Workplace models. It is now clear that Agencies may find significant synergies and efficiency gains in a coordinated approach towards new working models supported by innovative collaboration and unified communication technology.

What has been achieved:

A specific Digital Workplace session has been held during the 32nd ICTAC meeting. A large number of Agencies are currently migrating to Windows 10 and specific knowledge and lessons learned are being shared with DIGIT in view of achieving a greater degree of standardization.

An initiative has been launched by ECDC to federate different Agencies using **Skype for Business** and Office 365 allowing agencies users to work collaboratively e.g. on the same document(s) (doc, ppt etc). This will expand dramatically the collaborative possibilities of the suite across a wide array of agencies and will boost standardisation.

The Virtual Desktop environment mentioned in the previous paragraph is also an important component contributing to a seamless mobility of the digital workplace.

Results:

- Creation of the Office 365 Agency users working group
- Sharing of Windows 10 migration common problems and lessons learned, also in collaboration with DIGIT (specific Wiki available on Confluence)
- a number of agencies federate over Teams / Skype for business and use it actively for testing and productive purposes.



4.3 Emerging Technology

Objective: Innovation and practical adoption of the Artificial Intelligence and Data Analysis technology is evolving at a very fast pace, and for a majority of Agencies there is little time or resources which can be devoted to exploring the emerging challenges and opportunities. By finding synergies and sharing experiences, pooling know-how and talent resources, Agencies can avoid to be overwhelmed by the technological wave, defining common and shared initiatives and proofs of concept.

What has been done:

A specific session was dedicated during the past two ICTAC meetings (31st and 32nd edition) to the Big Data and Artificial Intelligence emerging topics.

Among the Agencies, Europol seems today the one having the largest experience with effective and practical adoption of technical solutions in the field of Machine Learning, Face/Object recognition, Automatic Translation. Cedefop has an ongoing project on Skills Intelligence using analytics and machine learning technologies to analyse skills demand (from job vacancies) and infer labour market needs and overall trends.

Apart from Europol, the AI adoption at EU Agencies in 2018 remained still experimental, although interest is very high and a fast and raising adoption is on-going. For this reason it has been decided to have AI as a permanent topic with a specific dedicated session at all the future ICTAC meetings.

In the Data Analytics area, a working group has been established with DIGIT for the definition of a common model aimed at the implementation of EU Data Lakes on specific domains (e.g, Health, Maritime Environment, Finance) with collection of structured and unstructured open data from different sources (i.e., Agencies, DGs, Member states).

DIGIT is currently in the process of finalizing a first EU Data Lake reference architecture and a “1.0 blueprint”, while EFSA has started a project to migrate its scientific Data Warehouse on Food safety data to the cloud. It is expected that this first cloud based Data Warehouse will contribute to form a more comprehensive “One-Health” federated data pool, encompassing food data (EFSA), epidemiological data (ECDC) and chemical substances data (ECHA).

Results:

1. EU Data Lake reference architecture (DIGIT)
2. EFSA Cloud based Scientific Data Warehouse (on-going project).
3. Cedefop's Skills Intelligence project (first results 1Q19, will be presented during ICTAC33)



4.4 Better IT Governance and Security

Objective: After the “Wannacry” 2017 event, the number of cyber-attacks in 2018 has increased both in frequency and possible impact on EU institutions, identified more often as possible targets. Therefore, there is an urgent need in all EU institutions to join forces and resources and to align IT Governance and IT Security process, which are still adopted in different ways. The migration of several services to the Cloud imposes at the same time a common and comprehensive risk analysis approach throughout the different institutions as well as the adoption of new techniques and countermeasures to protect extended and distributed security perimeters. In addition to the CERT-EU services and advice, a continuous and fast exchange of information among the Agencies is key to protect the new “hybrid IT environments” from external and internal threats.

What has been done: Agencies have continued to actively collaborate and exchange information among themselves and in coordination with CERT-EU. Specific incidents and countermeasures have been shared during the two 2018 ICTAC meetings and a method/tool to check the staff password weakness was explained and shared by EFSA.

ICTAC has raised awareness among its members of two important topics released in Q4 2018:

- the CERT-EU Agencies recommendations regarding the cyber security of cloud services
- the “Guidelines on personal data breach notification European Union Institutions and Bodies” released by the EDPS.

As regards the EDPS, specific attention was devoted to the preparation for the entry into force of the Regulation 2018/1725 on the processing of personal data by the Union institutions, bodies, offices and agencies, and on the practical implications for the EU institutions.

As to the CERT-EU side, the substantial effort spent in the consultations with the CERT-EU steering group and the close collaboration with CERT-EU aiming at defining a new service catalogue and a new pricing model for the future CERT-EU cyber-security services was already mentioned (par3).

During the last 2018 meeting of the EU steering board, ICTAC has presented a pricing model which is more balanced for the Agencies and made proposals to ensure better communication and transparency for the new programming period (2020-2027). Also, the need to define a common Cloud Strategy supported by a common Risk Evaluation framework for the migration to the Cloud was tabled and relevant work started in 2017. In the course of 2018, the initiative has evolved into a specific activity within the Cloud II Working Group, now working at the definition of the GOV SEC framework, intended to



provide practical tools to support EU institutions in the decisions related to cloud governance, the performance of risk assessments and keeping record of follow-up audits.

Other important achievements in the security area are:

- the joint initiative for the definition of 24/7 cyber defence services
- the promotion of synergies (also at CII level) for the adoption of a minimum standard for a secure end-to-end email exchange among the EUIs and bodies.

Results:

1. Active participation and support to the Cloud II Working Group with specific role and responsibility in the definition of the GOV SEC framework
2. ICTAC additional members invited to participate to the CERT-EU Steering Group, in addition to ENISA
3. Additional discussion with CERT-EU for the creation of a 24/7 cyber defense working group composed by CERT-EU, EDA and other 10 Agencies
4. Elaboration of a final balanced costing model for CERT-EU services beyond 2019 following Agencies' information and coordination on possible scenarios. ICTAC proposal will be endorsed by CERT-EU steering board during January 2019.
5. ICTAC encouragement to Agencies has been instrumental in increasing the number of Agencies to sign CERT-EU SLAs and benefit from standard CERT-EU services
6. Secure Email proof of concept performed by EMSA and DMARC record implementation by 2 Agencies (EFSA and EEA).

5 Other ICTAC activities and achievements

In addition to the activities, the results and the deliverables mentioned in the previous sections, ICTAC has also undertaken a series of other initiatives that have come up during the year.

Among them it is worth to mention:

- The contribution for a possible identification of an e-HR solution able to complement the "Sysper for EU Agencies" system with common and shared Recruitment and Talent Management functionalities
- The preliminary knowledge sharing with DIGIT for the creation of an "EU Data Lake" model, encompassing the Agencies data.

As an important part of the ICTAC "eco-system", additional value and synergies have been created thanks to the collaboration with vendors, invited to propose solutions to enable and support the objectives of the ICTAC work programme.



Contributions of technological relevance were:

- Big Data and Secure Data sharing, presented, by Microsoft (ICTAC 31)
- A no-code solution for workflow automation, by FlowForma (ICTAC 31)
- A Project life-cycle Management tool (Project4EU), by Tobania (ICTAC 31)
- A cloud based shared-service ITSM solution, by ServiceNow (ICTAC 31)
- A Pan-European secure mobile communication system, by Sectra (ICTAC 31)
- How can you take data driven decisions using Data Lakes, by Oracle (ICTAC 32)
- Low Code - No Code development, by Outsystems (ICTAC 32)
- AI assisted Process Automation, by Novabase (ICTAC 32)
- Cognitive search for document intelligence, by Microsoft (ICTAC 32).

Activities and synergies accomplished and started in 2018 will have a smooth and seamless progress and continuity with the activities planned in the ICTAC Work Programme 2019.