

EUROCCAS

EURO-CAS

Conformity Assessment Scheme for Europe in eHealth interoperability and Cyber-security

Monday 3 February 2020

Karima Bourquard, Director of Interoperability, IHE-Europe



*The EURO-CAS project has received funding from the
European Union's Horizon 2020 research and
innovation programme under grant agreement
No.727028.*



Karima Bourquard,

Director of Interoperability IHE-Europe

Scientific coordinator of EURO-CAS, EU project
H2020

www.EURO-CAS.eu

IHE (Integrating the Healthcare Enterprise) is a non profit association dedicated to interoperability in health information technology (HIT).

engages clinicians, health authorities, industry, and users to improve healthcare interoperability by:

- ▶ helping national and European stakeholders and policy-makers in adopting, promoting and implementing IHE specifications;

- ▶ developing tools and services in support of interoperability testing.

www.IHE-Europe.net

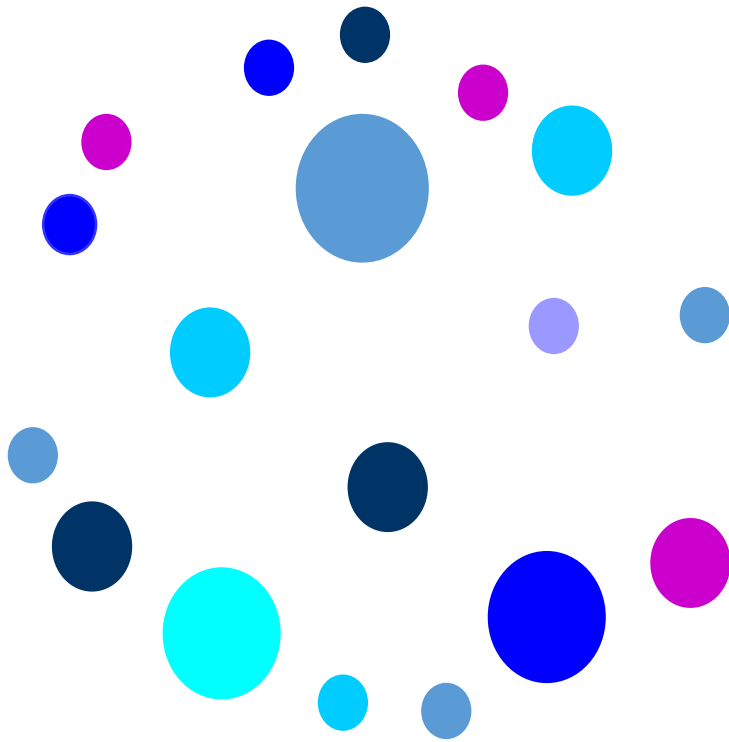


EURO-CAS key goal

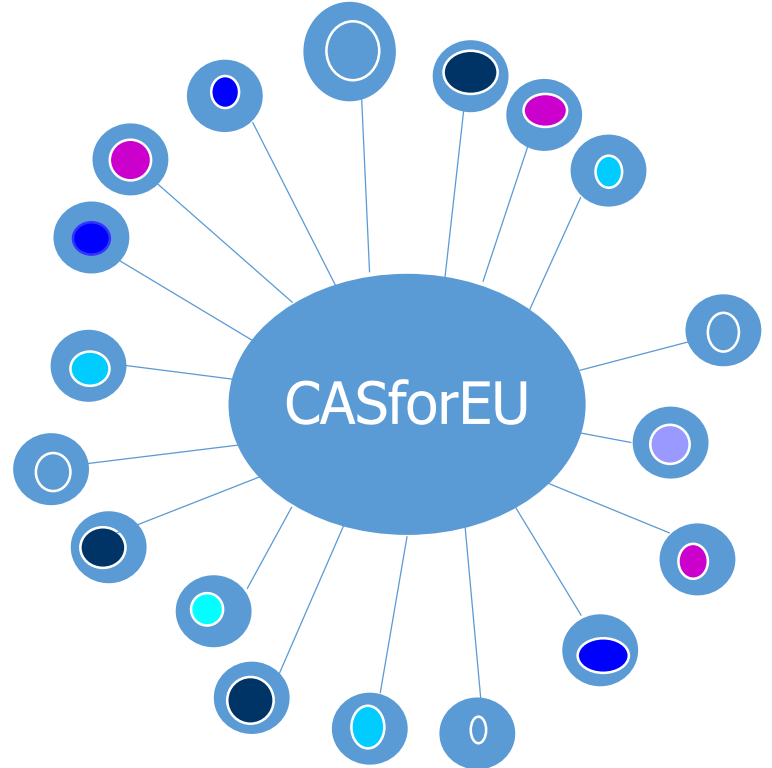
To develop the sustainable Conformity Assessment Scheme for Europe (CASforEU), to promote the adoption and take-up of interoperability testing of eHealth solutions against identified eHealth standards and profiles defined in the Refined eHealth European Interoperability Framework (ReEIF)



Goal



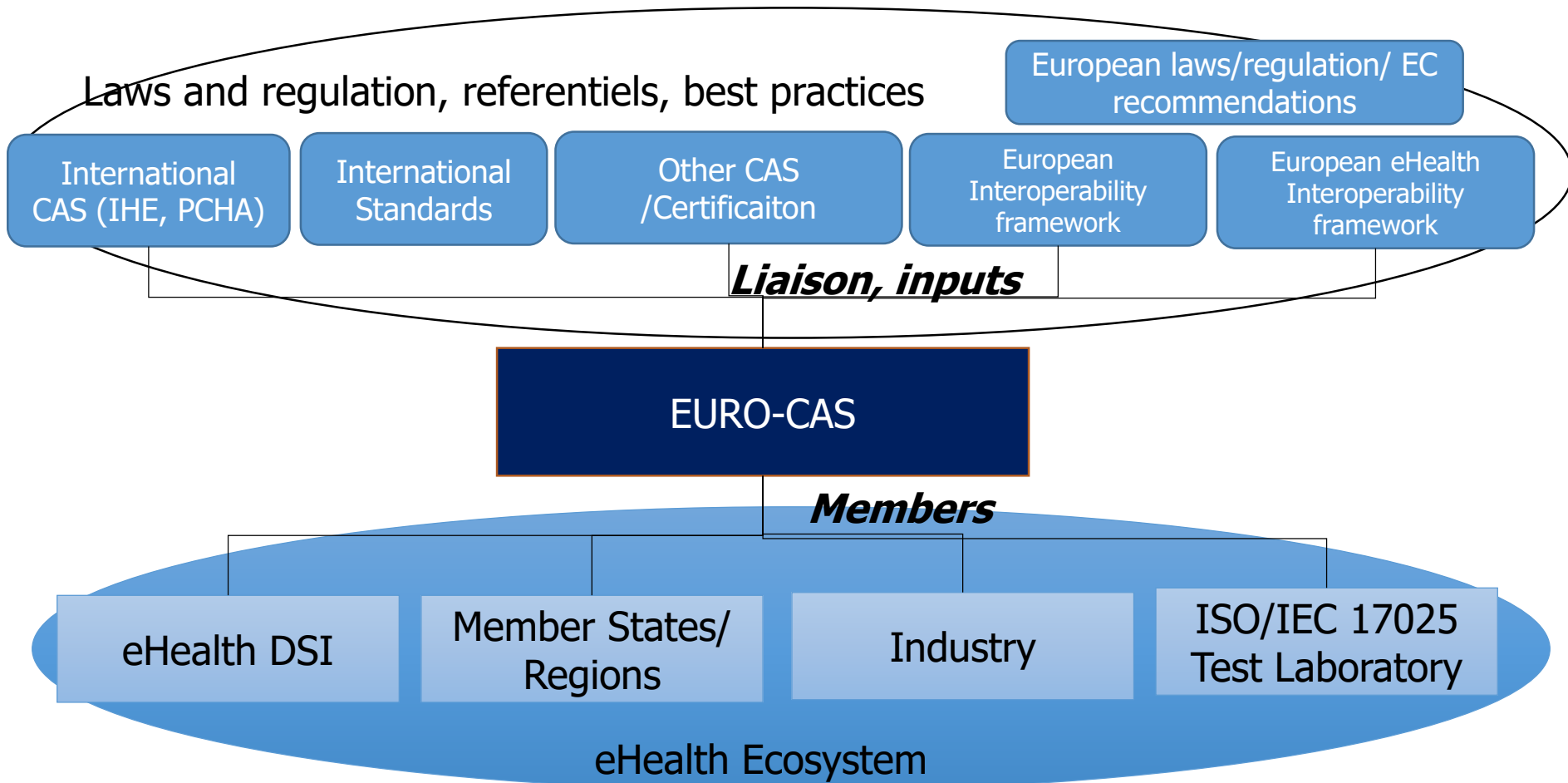
28+ separate schemes



1 common scheme with marginal local adaptations



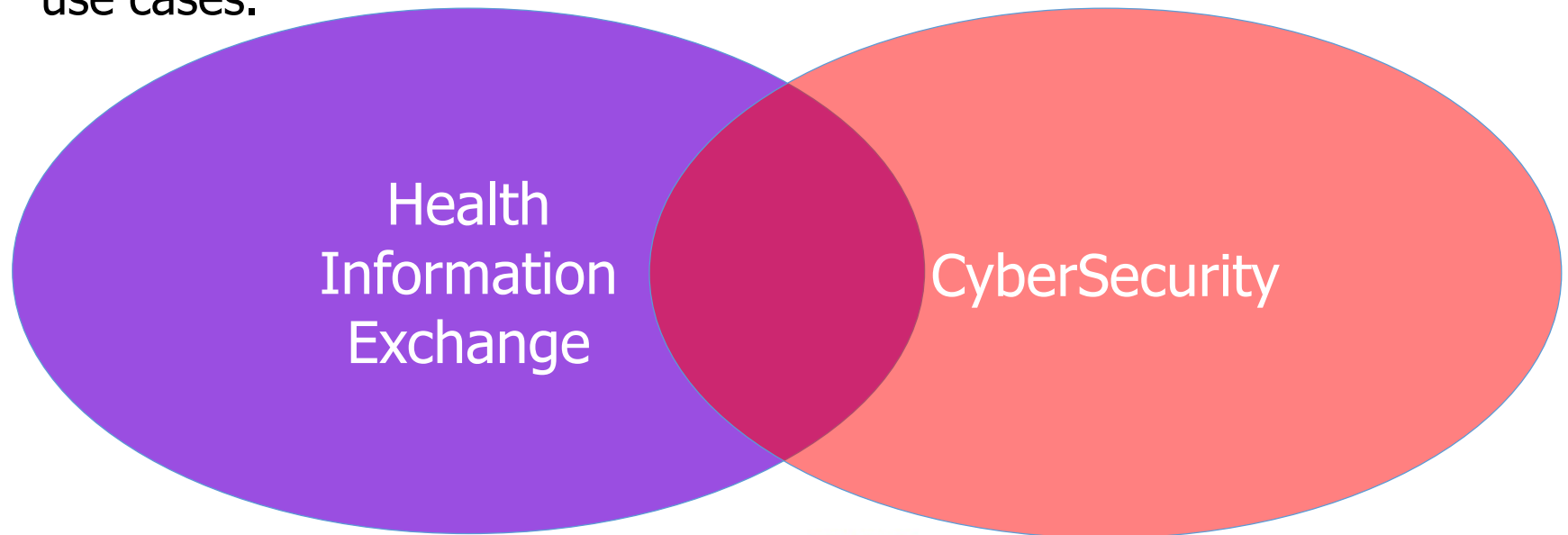
EURO-CAS



Cybersecurity in eHealth interoperability

Cyber Security and IHE - Focus

- Cybersecurity is a broad field that covers many aspects of the digital Health world
- IHE, non-profit organization has a clear focus on the exchange of health information
- IHE is multi-stakeholder, dedicated to improving standards-based interoperability in healthcare (www.ihe.net and www.ihe-Europe.net).
- Security and Privacy are core elements included in the mission. Its mission is to identify and profile standards (widely adopted internationally) for effective interoperability in support of user selected use cases.



IHE's role in Cybersecurity (1/3)

Objective

To facilitate interoperability between systems that includes

- Establishing secured communication pathways using cryptographically strong authentication
- Encrypting information exchanged between mutually authenticated systems

ATNA Profile

- Objective:
 - Establishes security measures which together with the Security Policy and Procedures, provide patient information **confidentiality, data integrity and user accountability.**
- Benefits:
 - Contribute to access control by limiting network access between nodes and limiting access to authorized users
 - Network communications between secure nodes in a secure domain are restricted to only other secure nodes in that domain.
 - Secure nodes limit access to authorized users as specified by the local authentication and access control policy.

IHE's role in Cybersecurity (3/3)

- Three new Options to the IHE ATNA (Audit Trail and Node Authentication) Profile published in 2019:
 - Easy for vendors to claim compliance to the IETF most current Cybersecurity best practice (BCP 195 – Support of TLS1.2 and stronger cypher suites, and certificate validation).
- Testing of these three Cyber protection options at the IHE Connectathons in 2019 has been important.
<https://connectathon-results.ihe.net/>.

Recognition

- one of the 27 IHE Profiles formally recognized by the European Commission (http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:JOL_2015_199_R_0011).
- Listed in the Interoperability Standards Advisory (ISA) publication issued annually by the US Department of Health and Human Services (http://www.healthit.gov/isa/ISA_Document/Appendix_I)
- Used in a large number of eHealth deployments in Europe, the USA, and around the world.

IHE Connectathon

- Open invitation to vendor and other implementers community
- Advanced testing tools (GAZELLE, a GITB platform)
- Testing organized and supervised by project management team and monitors
- Thousands of cross-vendor tests performed
- Results recorded and published



300+
participants

230+
engineers from
participating
organizations

40+
monitors

30+
committee
members

2800+
tests
performed

120+
systems

© IHE Services Copyright

Conclusion

- CASforEU Conformity Assessment Test Plan (CATP) first version has already included several IHE profiles supporting security and cyber-security:
 - ATNA: Audit Trail and Node Authentication
 - CT: Consistent Time
 - XUA: Cross Reference User Assertion
- Next step:
 - Specify a Concept paper for better operationalize EURO-CAS
 - to provide the necessary support for testing interoperability and cyber-security in eHealth
 - Cooperation for better include cyber-security



Thank you!



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 727028

EUROCCAS

www.euro-cas.eu

