Future-proof technologies for secure digital societies.

Essential facts



Technologies
exported to 35+
countries, incl.
USA, Japan,
UAE, Ukraine,
Indonesia,
Malaysia
and more

<u>-,</u>Ο΄-

Roots in academia since 1960



Architects of e-Estonia ecosystem

Cybernetica AS established in 1997



460+ research articles published since 1992



Partnerships include EY PwC European Commission EDF DARPA ESA ENISA

Clients in 35+ countries

USA
Malaysia
Tunisia
Ukraine
Japan
Benin
Greenland
Azerbaijan
Switzerland
Bahamas
Germany
and many more!



enter e-estonia



Estonia is known as the world's most advanced digital society.

Cybernetica has been a key partner in developing the world-renown e-governance solutions such as X-Road, SplitKey, e-Customs, Estfeed and more.

1998	2000	2001	2004	2005
Time stamping	Digital Signature Act	X-Road	eCustoms for joining the EU	Internet voting



2006 2009 2011 2014

Sharemind pilot Estonian blue border surveillance Strategic alliance on cryptographic UXP secure data exchange

security

2014

National GMDSS system



2017

SplitKey mobile identity

2018

Estfeed **Smart Grid** platform

2020

Cyber threat intelligence platform between Estonia and US

2022 2023

Secure Digital Military Mobility

SplitKey **CSP**



Values



Integrity

Continuous learning

Accountability

Sustainability



Meaningful innovation

Creating future technologies

Solutions with real impact

Top experts in the industry

Novel ways to execute



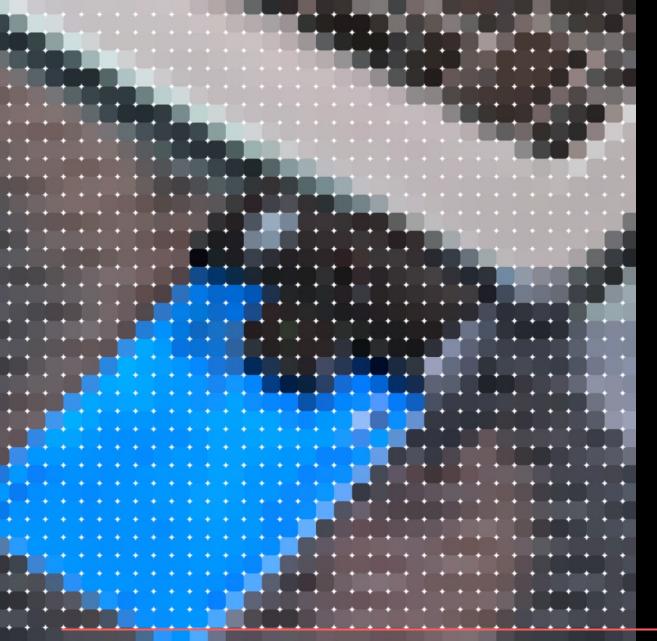
Resilient partnerships

Turning customers into partners

Support throughout entire journey

We are delivery-oriented





Information Security Research Institute

`ሷ፞- R&D is in our DNA

40+ researchers

10+ PhDs

Consulting

Contractual research

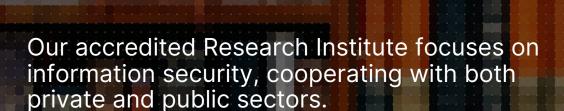
Advanced projects

Teaching and training

Product and technology development



Our research domains





Privacy and Al



Protocol research



Cybersecurity



R&D partnerships include DARPA, ONR, EU Commission, EDF, ESA, Estonian Research Council and Enterprise Estonia



Solutions



Interoperability

Cybersecurity

Privacy and Al

Tax and customs systems



Digital identity

Next generation mobile digital identity with unbreakable security.



A holistic digital identity value proposition



Technology

Ongoing development of SplitKey products.



Product

Three different SplitKey products for tailored digital identity needs.



Knowledge

Extensive knowledge of digital identity infrastructure.



Experience

Vast experience with major projects at a state level.



Digital identity offering



SplitKey

Smartphone based digital identity technology for secure electronic signing and authentication.



SplitKey+

Additional authentication methods for SplitKey – biometrics and pattern.



SplitKey CSP

Hardware agnostic SplitKey product for digital identity wallets.



Advisory

Consulting service to advise and analyse the current landscape.



i-voting in Estonia

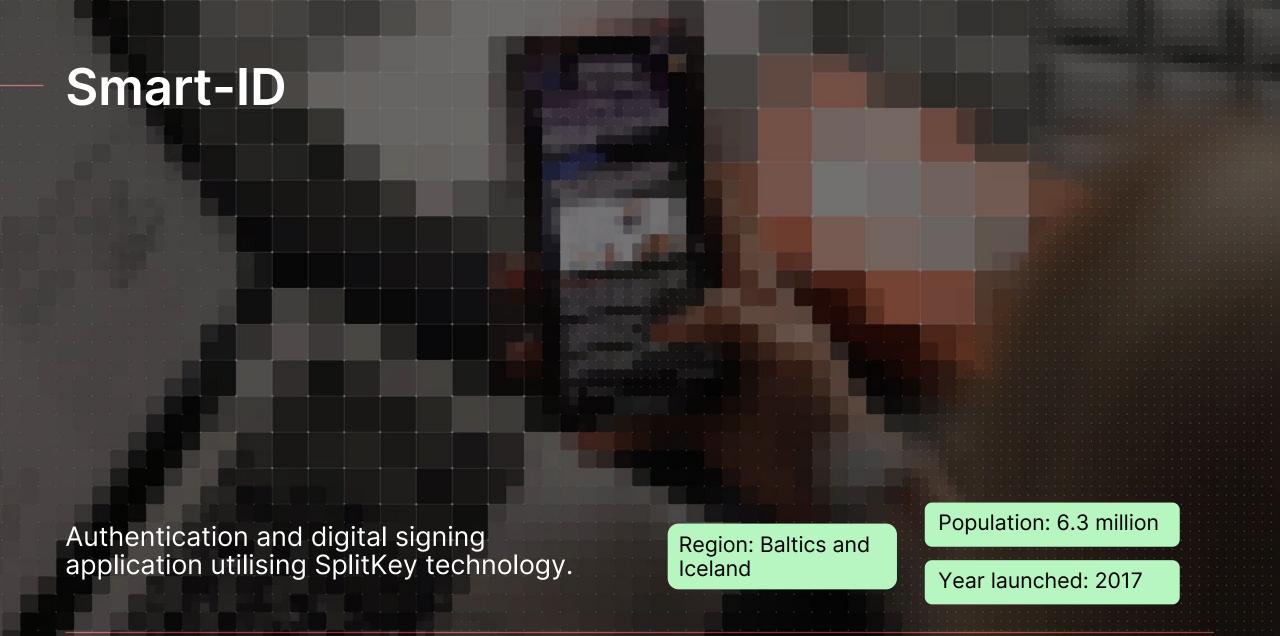
Estonia is the first, and currently, the only state in the world where citizens can elect the government online.

Country: Estonia

Population: 1.3 million

Year launched: 2005





CYBERNETICA

Partnerships

Strategic collaborations with global partners to elevate digital identity across multitude of regions worldwide.

PwC

Region: Middle East

EY

Regions: North Africa and Estonia

iProov

Regions: EMEA, LATAM and APAC



Collaboration with the Estonian Government

Research projects regarding the Estonian eID ecosystem and i-voting to ensure future-proof security.

Country: Estonia

Population: 1.3 million



The Future: Digital Identity Wallets

Strategic partnership with SK ID Solutions and the Estonian Information System Authority to scope and prepare for the development of digital identity wallets.

Year started: 2022

Country: Estonia



Privacy and Al

Protect data from unauthorised processing.



Privacy-by-Design in Al systems



Sharemind MPC

The next generation of data-driven services with end-to-end data protection and accountability.



Sharemind HI

The Application
Server provides an
API for
implementing
privacy-preserving
services using
Trusted Execution
Environments.



Data solutions

- + Synthetic data
- + Differential privacy
- + Federated learning
- + Zero knowledge proofs



Advisory

- + Impact assessments
- + Audits
- + Roadmaps and trainings



Encrypted suggestion engine for healthcare

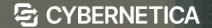
End-to-end encrypted suggestion engine for the CoNurse app with Sharemind HI.

Product: CoNurse

Region: Worldwide

Partner: Cognuse

Year launched: 2023



Predicting patient hospitalisation

Anonymising patients with rare diseases is hard without impacting the dataset and results.

Using Sharemind MPC solves this problem.

Partner: University of Tartu

Prototyped in: 2021

Country: Estonia



Securing analytics on mobility data

Secure processing of mobile phone location data for official statistics with Sharemind HI.

Funding: European Commission

Year launched: 2021

Beneficiary: Eurostat



EUCINF

Cyber and Information warfare toolbox based on machine learning and Al capabilities.

Funding: European Defence Fund

Partners: Airbus, Indra, Leonardo



Interoperability

Trust-based data exchange technology to build scalable and secure digital ecosystems.



Interoperability offering



Unified eXchange Platform (UXP)

Peer-to-peer data exchange over encrypted and mutually authenticated channels.



Managed UXP

Cloud-based Interoperability-asa-Service solution.



UXP Data Privacy tools

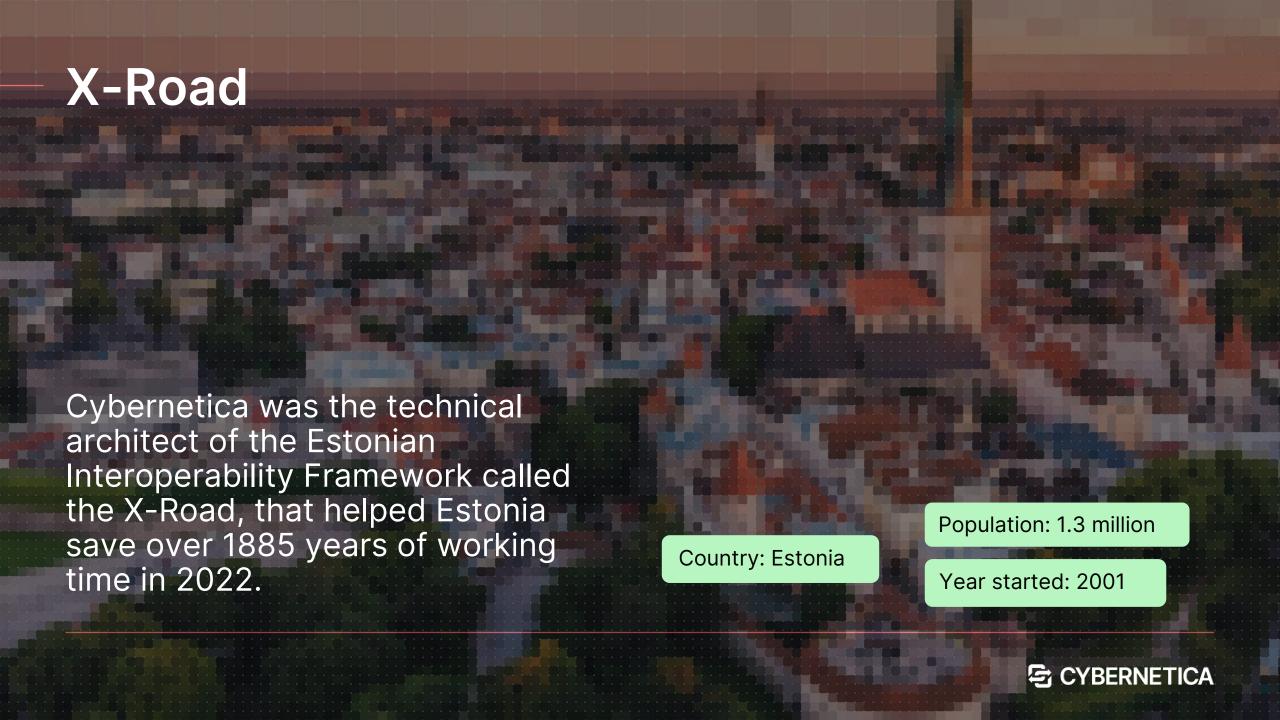
Transparencyenhancing technologies for data protection compliance.



Advisory

Full suite of consulting services for building technical interoperability.





Trembita platform

UXP as the core of national interoperability platform
Trembita supports Ukraine's e-government application Diia in providing digital services.

Country: Ukraine

Population: 44 million



MyGDX platform

Migrating the existing MyGDX platform to UXP as a highly scalable and secure interoperability technology for the Malaysian federal government.

Country: Malaysia

Population: 33 million

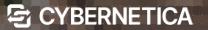


Beninese platform and citizen portal

Implementing UXP as the full-scale interoperability platform and deploying a government services portal in the Republic of Benin.

Country: Benin

Population: 12 million



Cybersecurity

Be in the know of your network and critical business assets.



Cybersecurity offering



Cyber situational awareness (CSA)

Cybersecurity solutions to elevate the awareness of cybersecurity matters.



Entity behaviour

User and entity behaviour analysis in the networks to gain an understanding of the usage of a system and the actions within it.



Proactive cybersecurity services

Tailored services for organisations and institutions to elevate CSA.



Industrial cybersecurity

Hybrid solutions of CSA solutions and entity behaviour applicable in industrial environments.



Proactive cybersecurity services

Risk assessment



Analysis

Assessment of assets, business processes and critical systems.



Design

Assessment of security and system architecture, risk management advisory.



Implementation

Software composition analysis, secure system development support and more.



Tailored services

Maintenance

Systematic prevention measures incl. vulnerability scan, pentesting, threat audit and more.

ECYSAP

European operational platform for real-time cyber situational awareness.

Funding: European Defence Fund

Partners: Airbus, Indra, Leonardo



VORMSI

Cybersecurity threat sharing between Estonia and USA.

Partner: US Air Force Research Laboratory



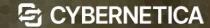
FAMOUS2

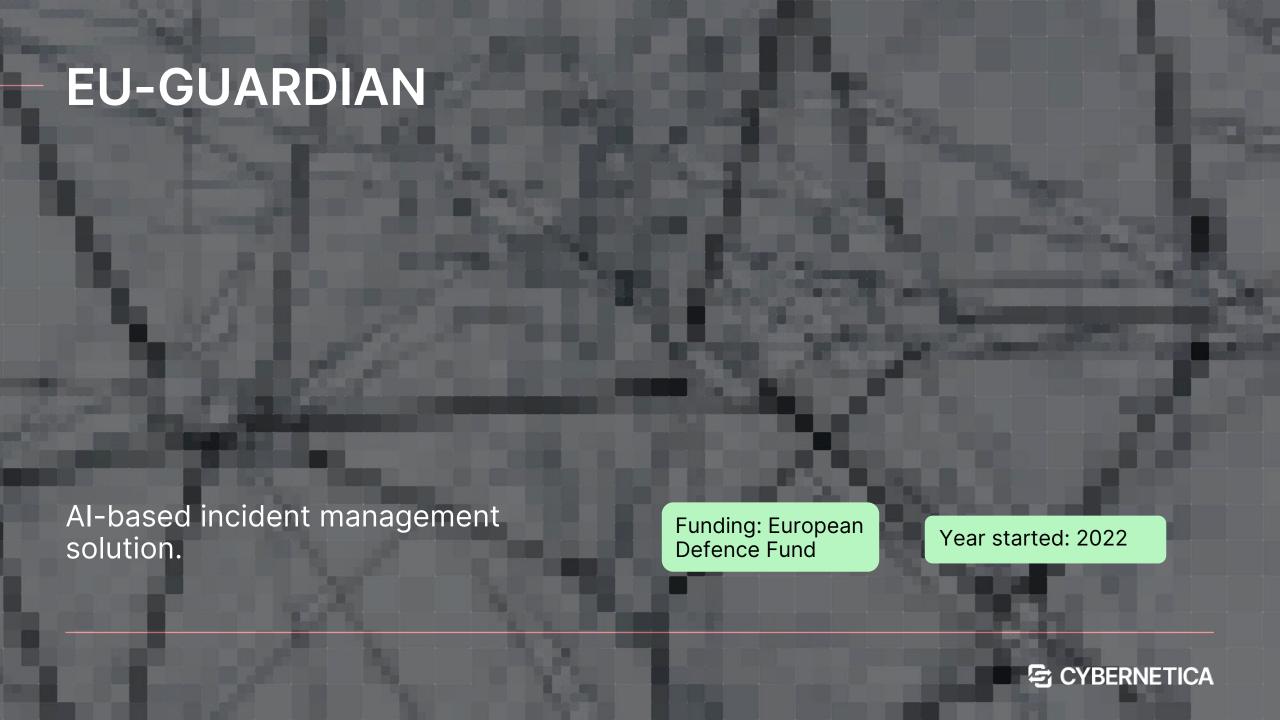
Next generation of interoperability for armoured vehicles.

Funding: European Commission

Partners: Patria, Indra, Diehl and others

Year started: 2021





Surveillance

Elevating situational awareness at sea through integrated border surveillance and vessel traffic management systems.



Future-proof technologies for safety at sea

Cybernetica provides maritime surveillance, communication and vessel traffic management systems that are utilised in more than 100 locations worldwide spanning seas in Estonia, Europe, Africa and South-East Asia.

Integrated maritime surveillance

\textstyle Vessel traffic management

Answer Answer A

Surveillance systems offering

ソス

Border and maritime surveillance

Integrated surveillance systems for detecting, identifying, and monitoring objects on the mainland and blue borders. TDoA integration.

 $^{\circ}$

Vessel traffic management

Enhancing security of maritime and border environment, marine traffic awareness, and safety at sea.



Coastal radio communication

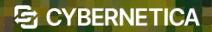
- + Based on VoIP protocol, over IP network
- + System scalability

Maritime coastal radio communication system

Deployment of complete radio system for Malaysia and Indonesia across both shores of the Malacca Strait.

Region: South-East Asia Annual transit: 100 000 ships

Year launched: 2016



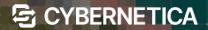
Vessel traffic management system

Deployment of a comprehensive vessel traffic management system on the Gibraltar Strait – over 100 000 trade ships transit annually.

Region: Europe and North Africa

Annual transit: 100 000 ships

Year launched: 2023



Border and maritime surveillance

Detecting, monitoring and identification of traffic and targets in a blue border environment on the EU and NATO external border.

Region: Estonia

Localised stations: Over 200

Year started: 2013



Tax and customs systems

Turn-key software solutions for tax and customs based on decades-long expertise.



Tax and customs systems offering



Software development

Custom software for all tax and customs matters: import, export, transit, VAT, excise and more. Full compliance with EU specifications.



Advisory

We have cooperated with the Estonian Tax and Customs board since 2003. Our expertise played an integral role upon admission to the EU in 2004.



Thank you.

- https://cyber.ee/
- (a) info@cyber.ee
- **CyberneticaAS**
- o cybernetica_ee
- in Cybernetica

