



**SECURITY  
DAYS**

# **BALTIC CYBERSECURITY - LESSONS FROM THE FRONTLINE**



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# eGA in brief



**Active since 2002**

Independent  
Centre of Excellence  
Headquartered in Estonia

**300+**

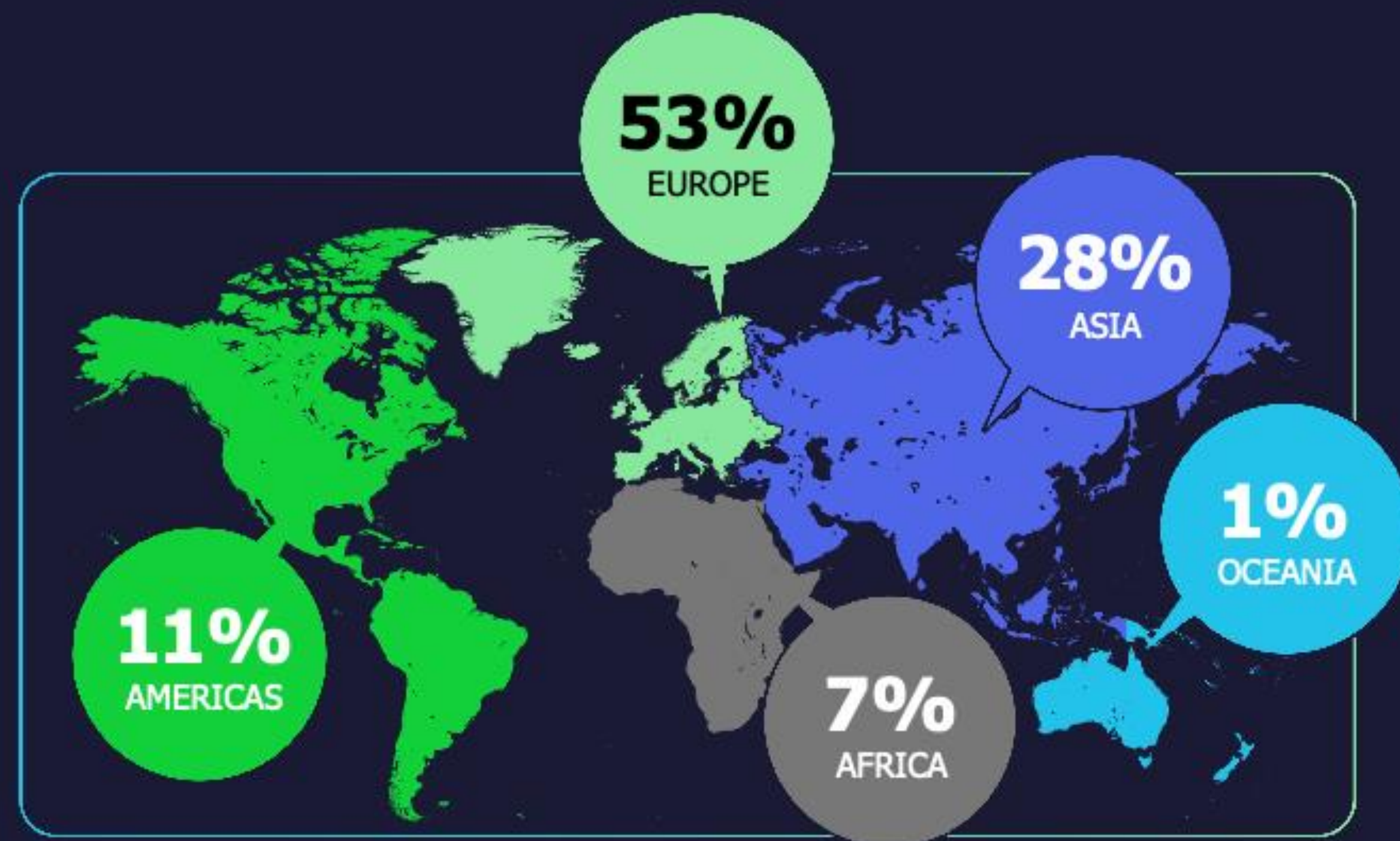
organisations  
from 147 countries  
worked with

**380+**

projects  
implemented since  
2003, 40+ annually

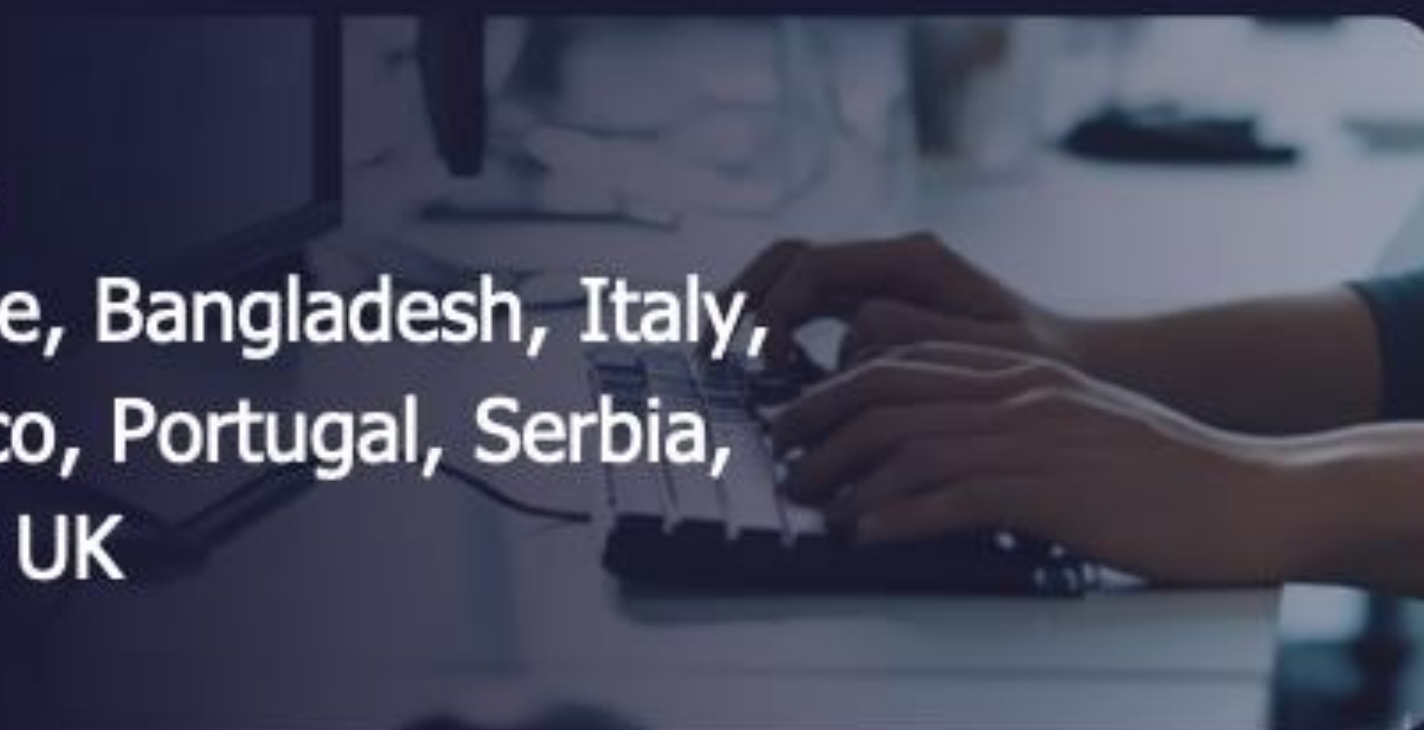
**26 M**

EUR turnover  
(2025)



**100 employees**

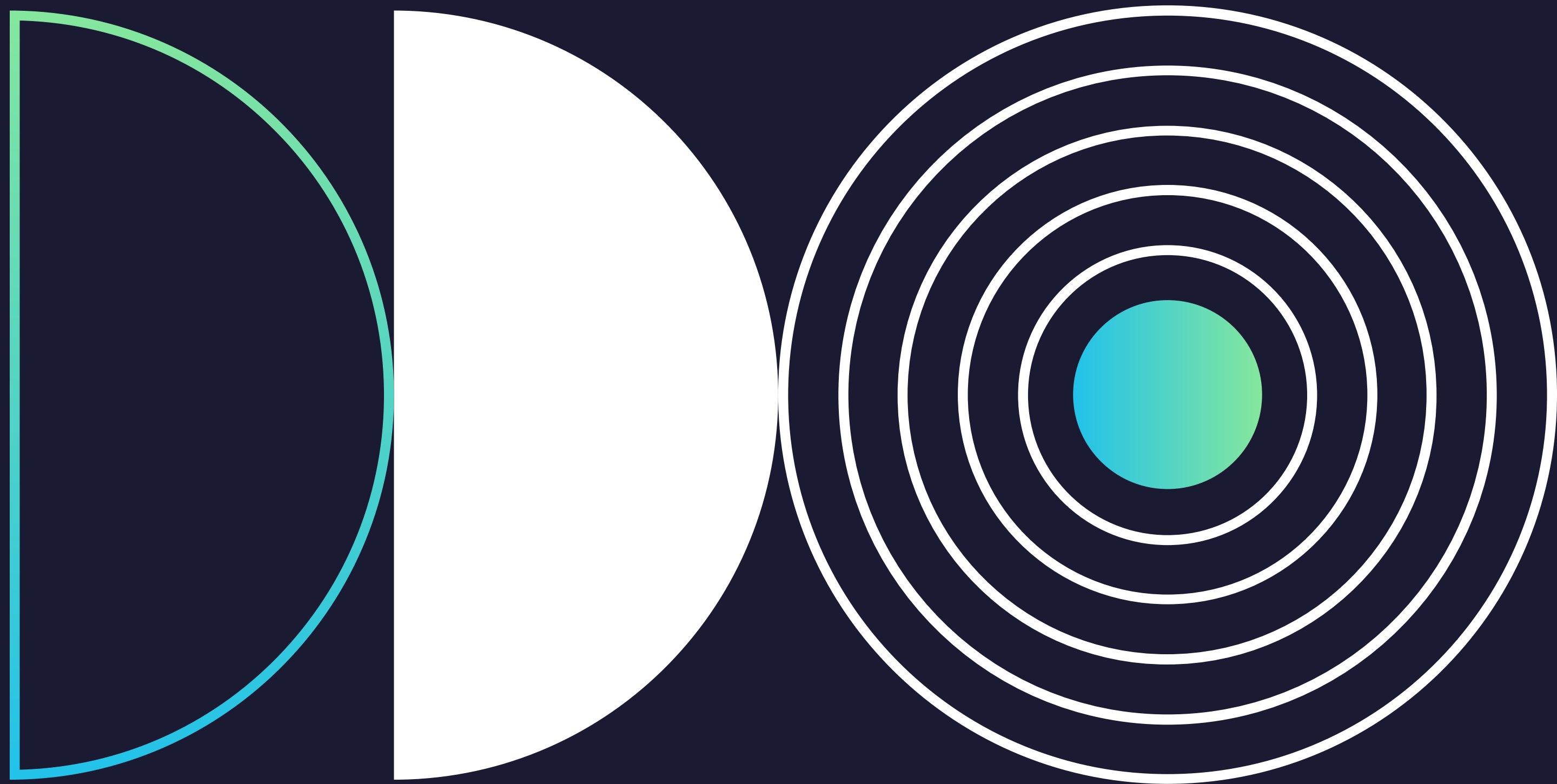
in Estonia, Ukraine, Bangladesh, Italy,  
Kyrgyzstan, Mexico, Portugal, Serbia,  
Slovenia, and the UK



***National cyber resilience*** – state's ability to maintain essential democratic, economic and public-service functions during & after cyber disruptions.

With cyberattacks growing, governments to figure out where to spend money to get the best results, keeping defence affordable.

- National Trust Backbone
- Apply AI in cyber defence
- Whole-of-society' approach
- Proactive transparency

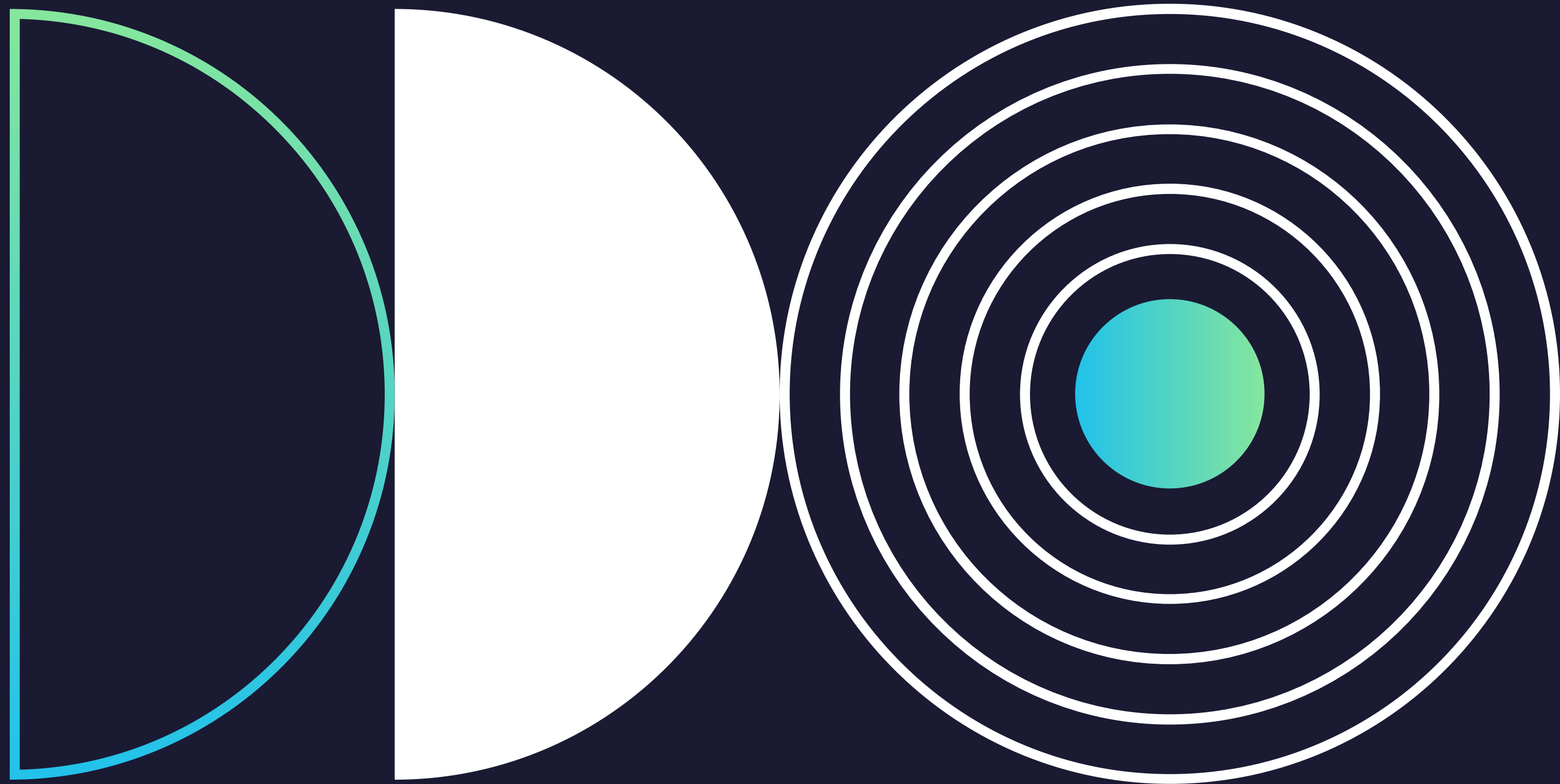


I . Define National Trust Backbone

II . Apply AI in cyber defence

III. Employ 'whole-of-society'  
approach

IV. Be proactively transparent in  
communication



# I. National Trust Backbone – 6 layers

## 1. Digital **identity**

*Estonia's ID card crisis 2017*

## 2. Qualified **signature** and authorisation

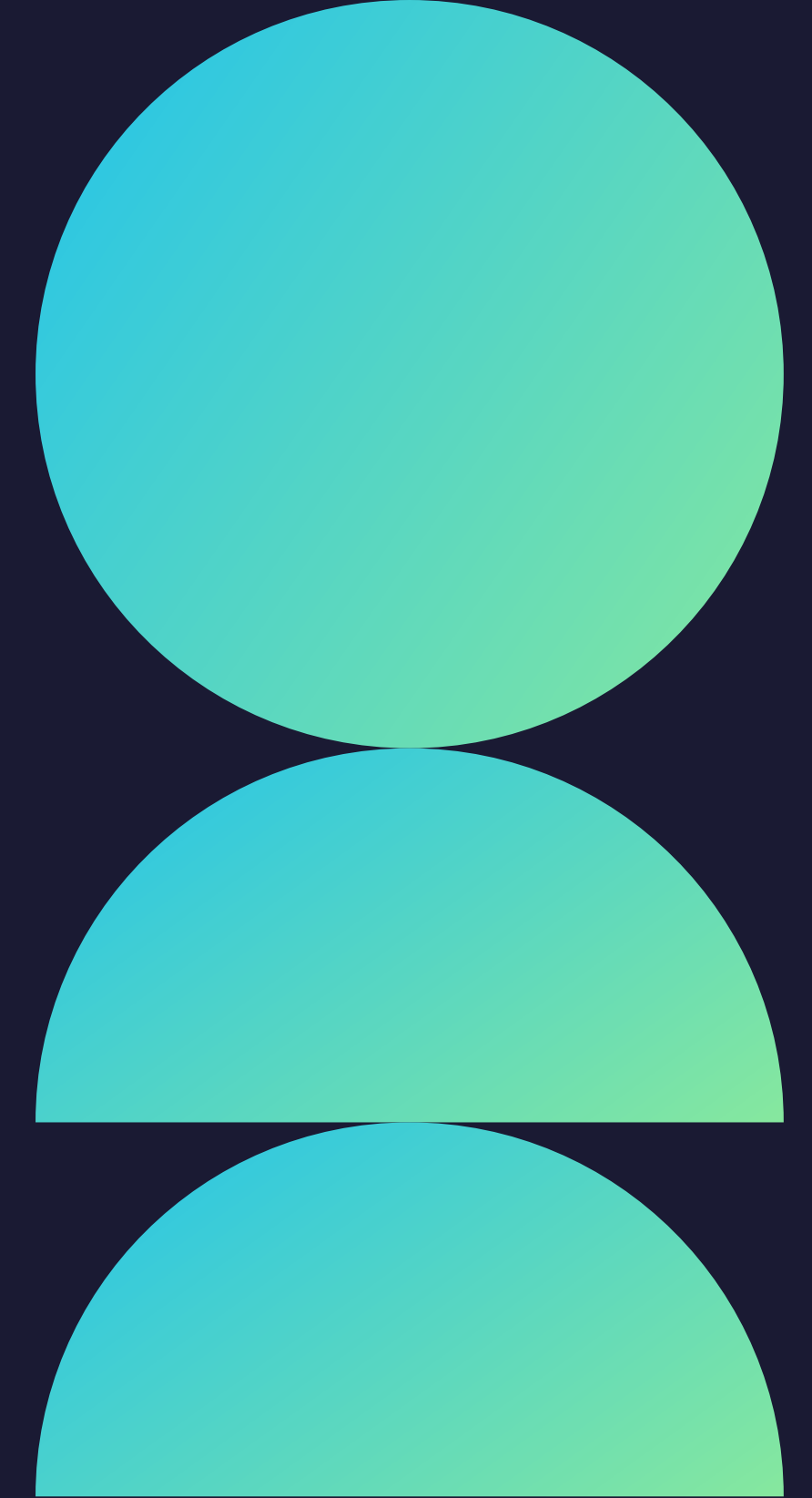
## 3. Authoritative **registers**

*Data Embassy*

## 4. Secure **exchange**, interoperability

## 5. **Audit** & oversight

## 6. Protected **hosting**



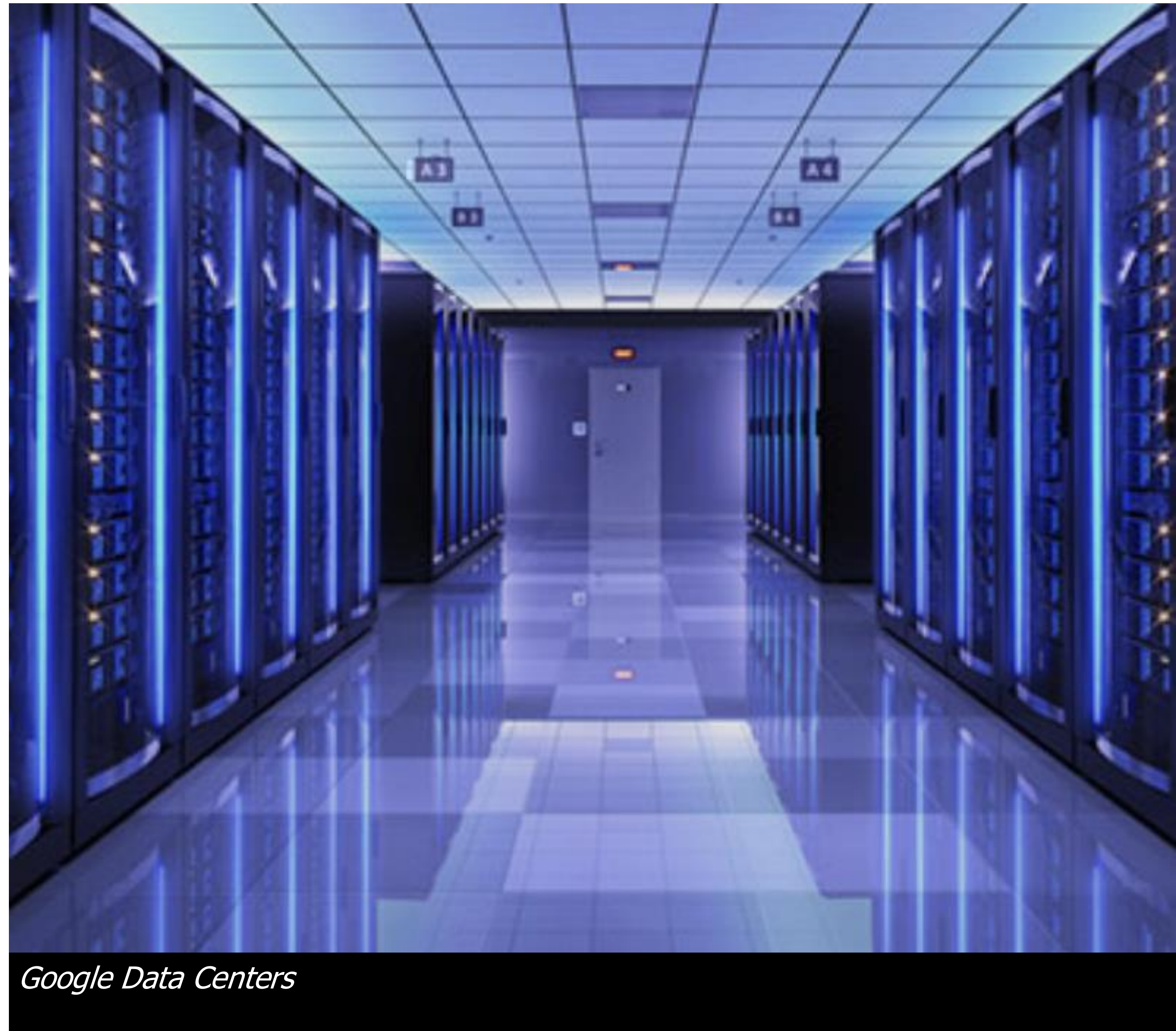
# Estonian 2017 ID card crisis

- Sparked by discovery of the global ROCA (Return of the Coppersmith's Attack) cryptographic vulnerability in the physical Infineon chips.
  - 94% of Estonian ID cards were renewed
- More than one way to prove who you are.
- Informal relationships with Czech mathematicians!



# Data embassy

- Digital services indispensable in conflicts.
- Data embassy - secure, treaty-based arrangement where a nation stores its critical data and information systems in servers located in another country.
- Estonian data embassy backs digital court files, land register, business register, legal documents.
- Future focus to expand live data handling.



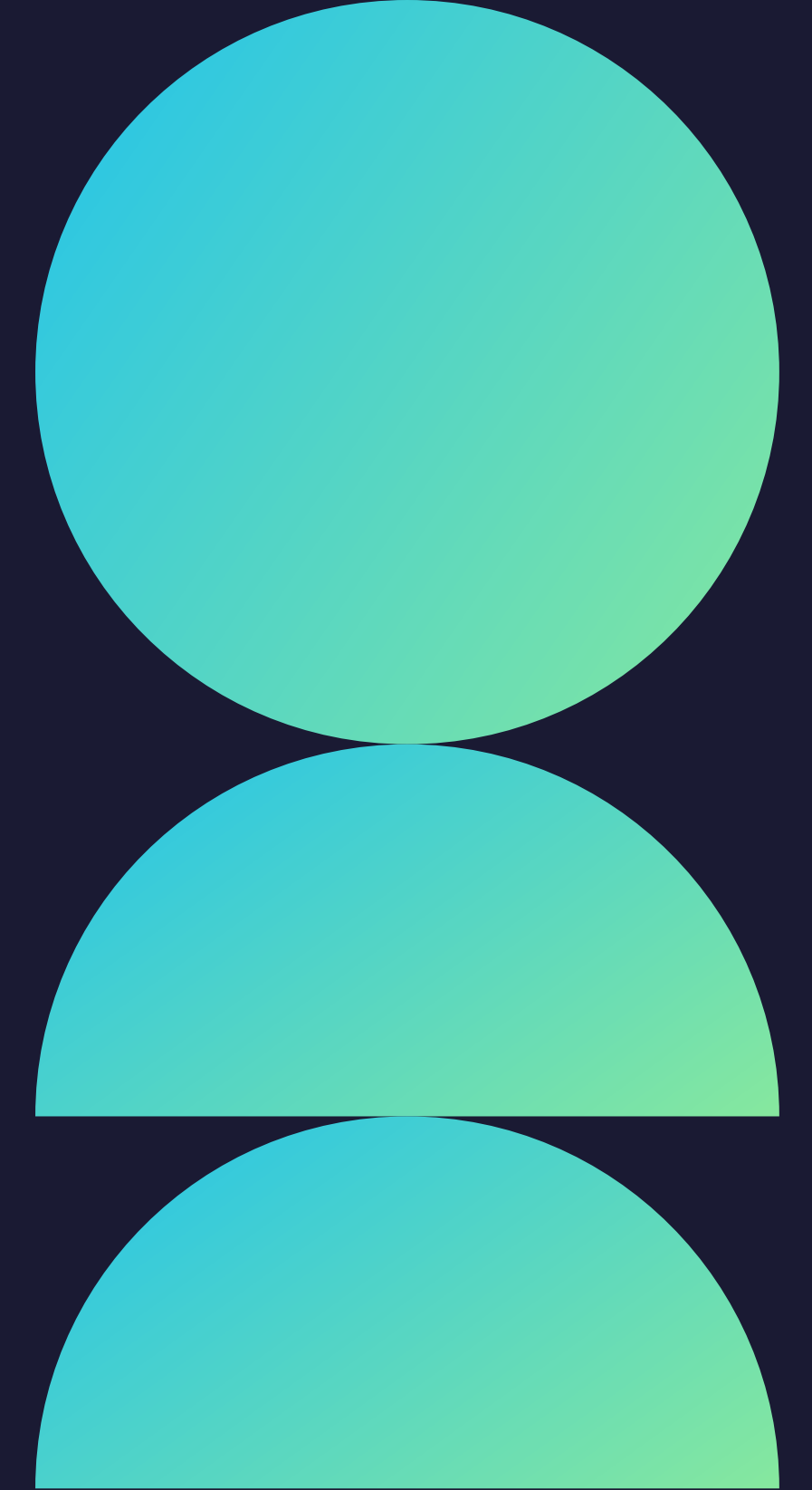
*Google Data Centers*

## II. Apply AI in defence

- Improved situational awareness – live machine-readable digital estate map
- AI-accelerated vulnerability search & patching

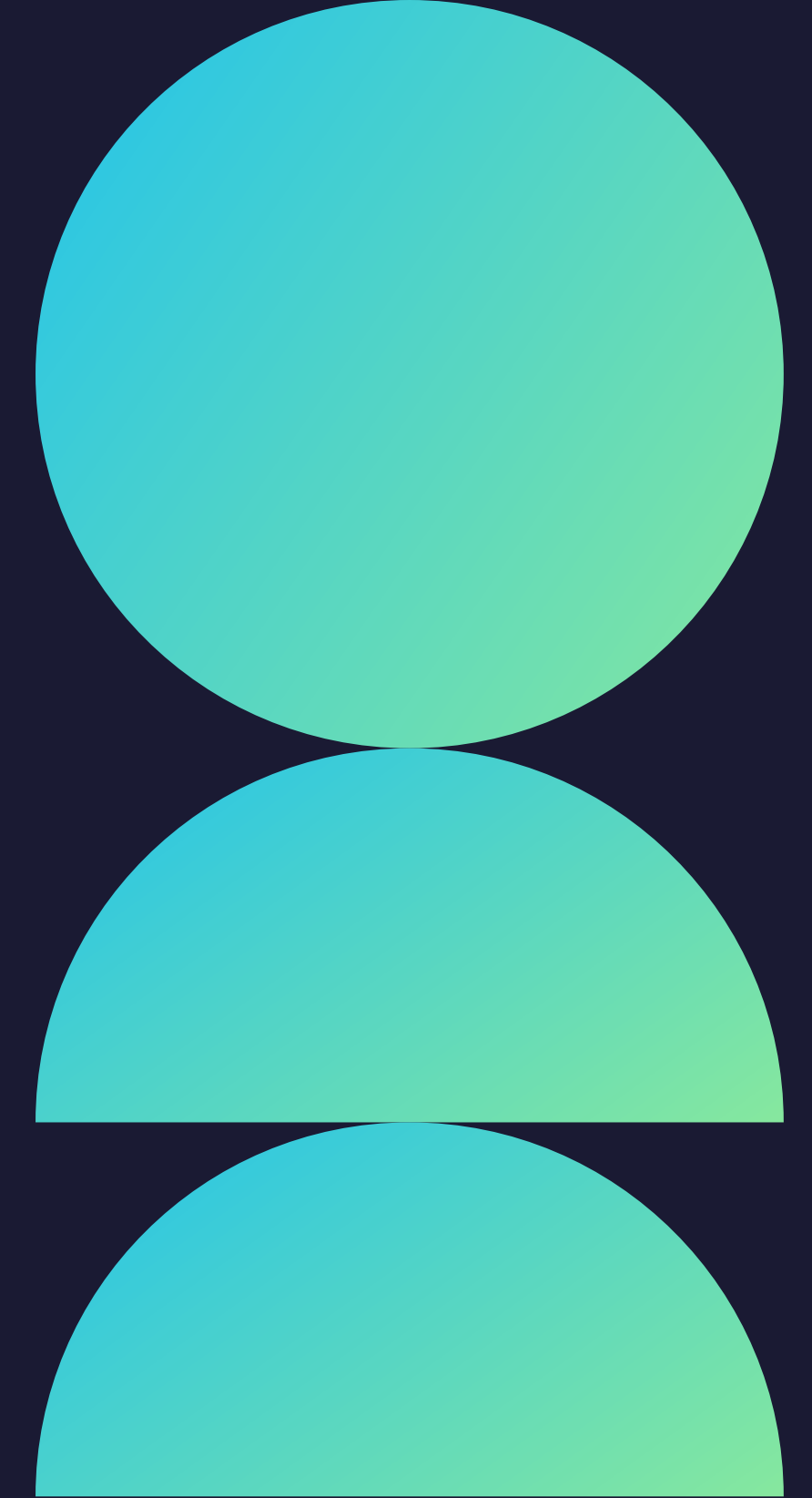
BUT

- Just *finding* vulnerabilities does not improve security
- *Process* to manage vulnerabilities
- Prioritized vulnerabilities' patching
- Basic cyber hygiene remains fundamental



# III. Whole-of-society approach

- Citizen cyber literacy
- Comprehensive higher education in cyber
- Professional cyber workforce
- Cyber reserve
- Allied joint exercises



*Train the country not the cyber team*

# NATO CCDCOE Locked Shields, Crossed Swords cyber exercises



*Credit: Arno Mikkor*

## **IV. Proactive transparency in communication**

Propastop - independent,  
volunteer-run blog &  
monitoring platform

- Exposes disinformation
- Fact-checks claims
- Analyzes motives
- Promotes media literacy



Thank you!  
Questions?

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