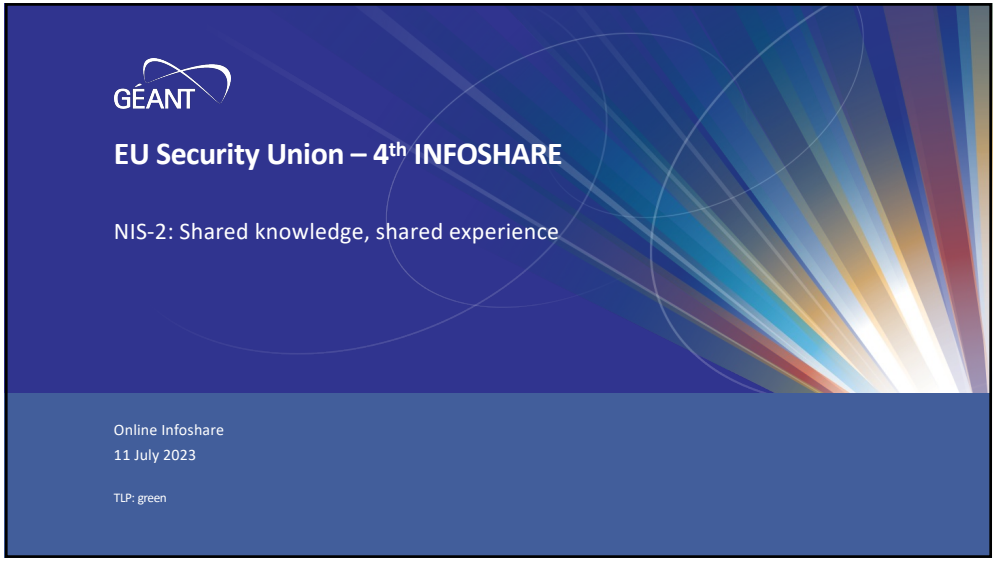
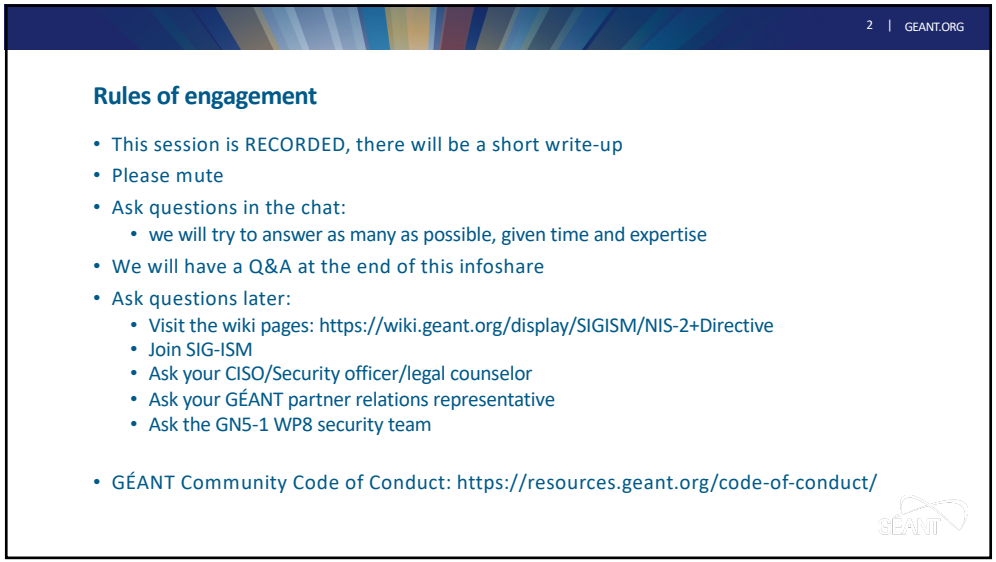

GÉANT
EU Security Union – 4th INFOSHARE
NIS-2: Shared knowledge, shared experience
Online Infoshare
11 July 2023
TLP: green

1


2 | GEANT.ORG
Rules of engagement
• This session is RECORDED, there will be a short write-up
• Please mute
• Ask questions in the chat:
• we will try to answer as many as possible, given time and expertise
• We will have a Q&A at the end of this infoshare
• Ask questions later:
• Visit the wiki pages: https://wiki.geant.org/display/SIGISM/NIS-2+Directive
• Join SIG-ISM
• Ask your CISO/Security officer/legal counselor
• Ask your GÉANT partner relations representative
• Ask the GN5-1 WP8 security team
• GÉANT Community Code of Conduct: https://resources.geant.org/code-of-conduct/
GÉANT

2

Agenda

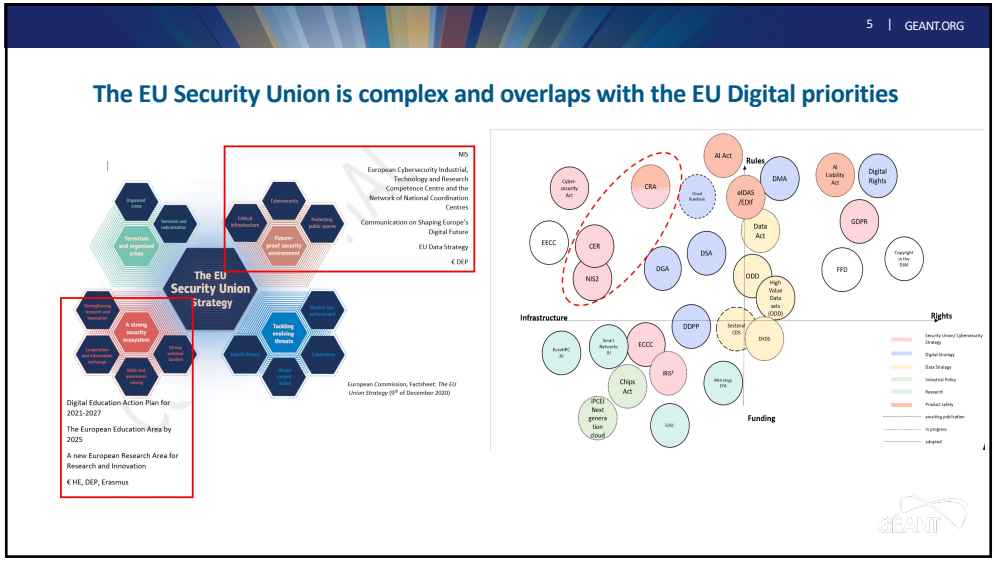
14.00	Welcome and introduction	Alf Moens
14.05	Summary – Where are we now with NIS-2	Alf Moens
14.20	Restena and R&E in Luxembourg	Gilles Massen
14.30	NIS-2 Project at SURF	Jeroen Schuring / Alf Moens
14.40	NIS-2 in Hungary	János Mohácsi / Alf Moens
14.50	NIS-2 in Austria	Christian Panigl / Alf Moens
15.00	NIS-2 at GÉANT	Alf Moens
15.10	NIS-2 Position Paper	Stratix Consultancy
15.20	NIS-2 mapping on GÉANT Security Baseline	Šarūnas Grigaliūnas
15.40	Questions and Answers, discussion	
	Conclusions, Next steps and closing	
	What's next? NIS-2 Infoshare V	

3

Quick Summary

- **NIS-2 directive** has been published on 15th of December 2022 , and will be in action within 21 months from the "entry in force"
- **October** 2024: latest, but with the Council Recommendation **to do it ASAP.**
- Standards are still 'negotiated' via comitology (delegated Act)
  - Expect „Rulings" or „guidance" from ENISA and NIS Cooperation Group
- Obligations are „logical", no real surprises

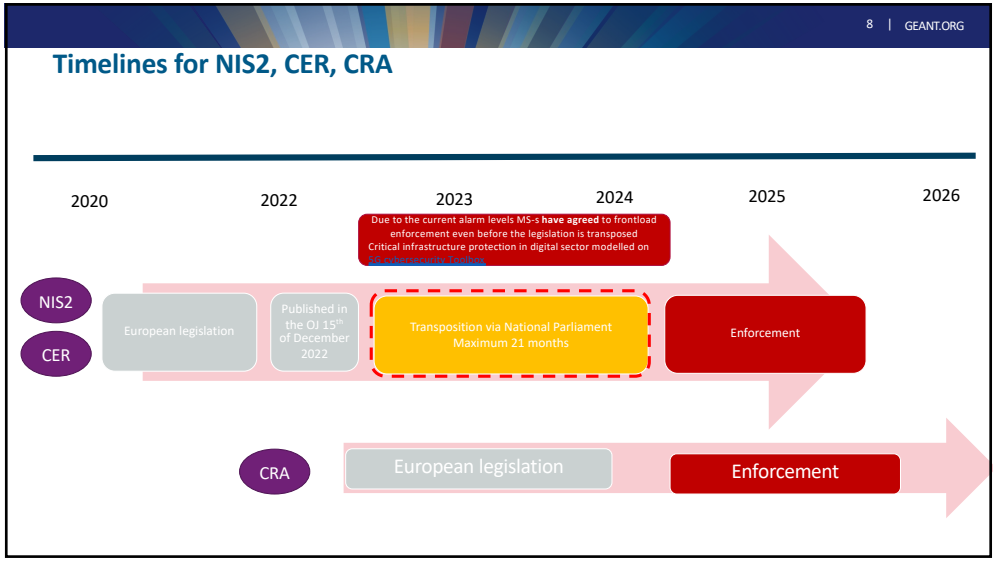
4


5 | GEANT.ORG
The EU Security Union is complex and overlaps with the EU Digital priorities
The EU Security Union Strategy
NIS
European Cybersecurity Industrial, Technology and Research Competence Centre and the Network of National Coordination Centres
Communication on Shaping Europe's Digital Future
EU Data Strategy
€ DEP
European Commission, Factsheet: The EU Union Strategy (9th of December 2020)
Digital Education Action Plan for 2021-2027
The European Education Area by 2025
A new European Research Area for Research and Innovation
€ HE, DEP, Erasmus
AI Act
Rules
CRA
DMA
eIDAS /EDI
Data Act
GDPR
DSA
DGA
NIS2
CER
EECC
ODD
FFD
Infrastructure
Rights
DDPP
ECCC
Chips Act
Funding

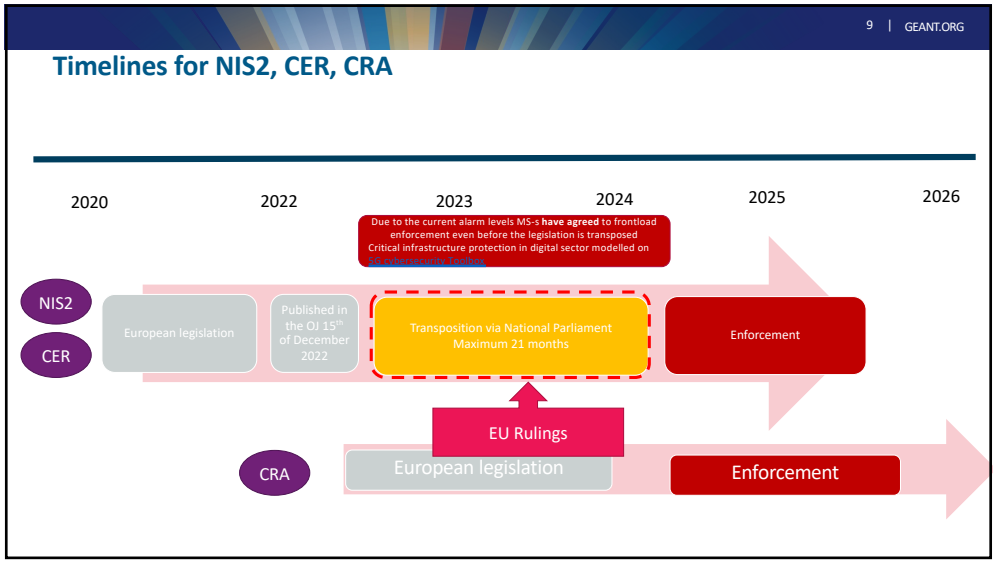
5

JUMPSTART GOOD HABITS
kindle $79

7


8 | GEANT.ORG
Timelines for NIS2, CER, CRA
2020
2022
2023
2024
2025
2026
Due to the current alarm levels MS-s have agreed to frontload enforcement even before the legislation is transposed Critical infrastructure protection in digital sector modelled on
NIS2
CER
European legislation
Published in the OJ 15th of December 2022
Transposition via National Parliament Maximum 21 months
Enforcement
CRA
European legislation
Enforcement

8


9 | GEANT.ORG
Timelines for NIS2, CER, CRA
2020
2022
2023
2024
2025
2026
Due to the current alarm levels MS-s have agreed to frontload enforcement even before the legislation is transposed Critical infrastructure protection in digital sector modelled on
NIS2
CER
European legislation
Published in the OJ 15th of December 2022
Transposition via National Parliament Maximum 21 months
Enforcement
EU Rulings
CRA
European legislation
Enforcement

9

10

National transposition: EU Member states decide individually on:

- National implementation
- Scope
- Standards
- Audit and Compliance structure
- National CSIRT structure

- Small or large organisation
- Governmental Agency
- Special “functions”:
  - IX, DNS, tld
- ….

- Implementation coordination thru:
  - Rulings from EC
  - NIS Cooporation Group
  - ENISA

Legislative challenges to align with national law.

10

EU27 2025?

11

EU27 2025?
12 | GEANT.ORG

12

13

13 | GEANT.ORG
Last time we heard from heard from:
SURF
HEAnet
CYNET
CYPRUS RESEARCH AND ACADEMIC NETWORK
DeiC
DFN
DEUTSCHES FORSCHUNGSNETZ
MARnet
macedonian academic & research network
restena
Jisc

13

Agenda

14.00	Welcome and introduction	Alf Moens
14.05	Summary – Where are we now with NIS-2	Alf Moens
14.20	Restena and R&E in Luxembourg	Gilles Massen
14.30	NIS-2 Project at SURF	Jeroen Schuring / Alf Moens
14.40	NIS-2 in Hungary	János Mohácsi / Alf Moens
14.50	NIS-2 in Austria	Christian Panigl / Alf Moens
15.00	NIS-2 at GÉANT	Alf Moens
15.10	NIS-2 Position Paper	Stratix Consultancy
15.20	NIS-2 mapping on GÉANT Security Baseline	Šarūnas Grigaliūnas
15.40	Questions and Answers, discussion	
	Conclusions, Next steps and closing	
	What's next? NIS-2 Infoshare V	

14

NIS-2 at SURF

- SURF appointed a project manager for NIS-2: Jeroen Schuring
- Clarify impact on R&E instutions, based on scenario's
- Clarify impact on SURF, based on scenario's
- Clarify impact on CSIRT function: part of SURF or independend?
- Propose governance structure for implementation of EU legislation for R&E

15

KIFÜ

NIS2 in Hungary – and relation to KIFÜ services

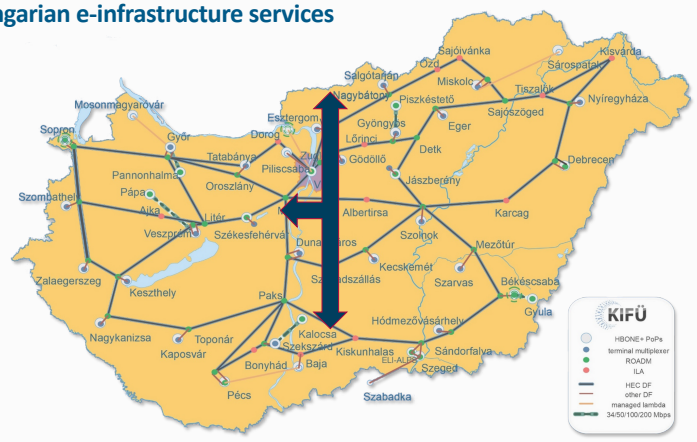
János Mohácsi, Head of International R&D, T&I service owner

21 June 2023

16

KIFÜ

KIFÜ – Hungarian e-infrastructure services



17

KIFÜ

KIFÜ – Hungarian e-infrastructure services

NIF Program since 1986

Member of NREN community since 1992

NIIFI + KIFU merger 2016

NETWORK technologies

Internet (1991), MPLS (2002), IPv6(2003), Segment routing (2013), 100 Gbps (2012)

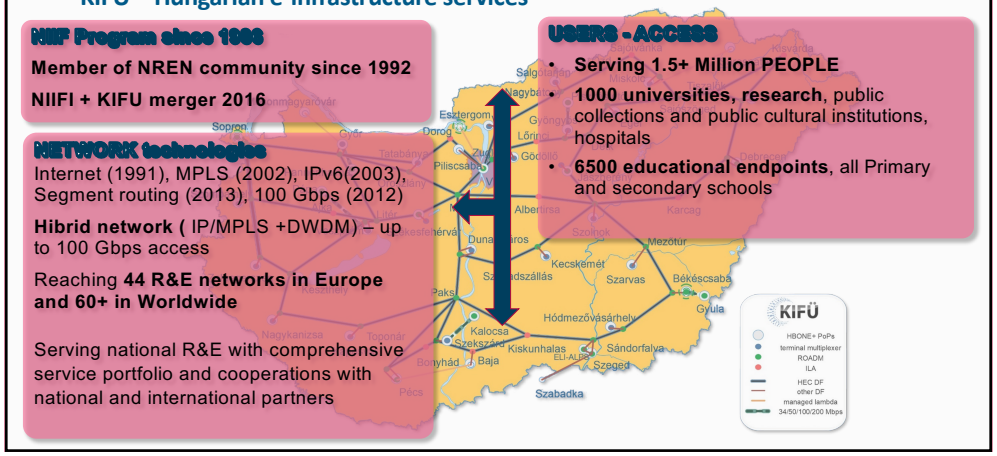
Hibrid network (IP/MPLS +DWDM) – up to 100 Gbps access

Reaching **44 R&E networks in Europe and 60+ in Worldwide**

Serving national R&E with comprehensive service portfolio and cooperations with national and international partners

USERS - ACCESS

- **Serving 1.5+ Million PEOPLE**
- **1000 universities, research**, public collections and public cultural institutions, hospitals
- **6500 educational endpoints**, all Primary and secondary schools



18

KIFÜ

ICT services – for users

19

20

KIFÜ NIS2 in Hungary – and KIFÜ services

- Hungary is focusing on Critical Entities Resilience Directive (CER) instead of NIS2 (CER and NIS2 directives entered in force January 16, 2023)
- CER – EUR-Lex - 32022L2557 - EN - EUR-Lex (europa.eu)
- CER legal harmonization – Ministry of Interior Affairs – members: telecommunication authority, Prime Minister's Cabinet Office, Ministry of Foreign Affairs and Trade – rather closed discussion
  - Expected result – around end of 2023
- Digital infrastructure providers:

Providers of internet exchange points	
Publicly available recursive DNS resolution services, authoritative DNS server providers	KIFÜ
Top level DNS service providers and registries	KIFÜ
Cloud service providers	KIFÜ
Data centre service providers	KIFÜ
Content delivery network services – content providers	KIFÜ
Trust service provider	KIFÜ - brokered
Public internet providers	
Electronic communication service providers	KIFÜ
Managed service providers	
Managed Security Providers	

20

KIFÜ KIFÜ approach to implement NIS2

- **Planned preparation**
- Use GÉANT security baseline
- technical, operational and organizational measures against possible incidents
- risk analysis and regulation of the security of IT systems;
- incident management;
- business continuity, disaster recovery and crisis management plans;
- security of the supply chain
- security in the acquisition, development and maintenance of network and information systems – vulnerability management
- policies and procedures for evaluating the effectiveness of cybersecurity risk management measures;
- basic cyber hygiene practices and cyber security training;
- policies and procedures regarding the use of cryptography and, where applicable, encryption;
- human resources security, access control policies and asset management;
- use of multi-factor authentication, secure communication systems within the organization where appropriate.
- Work with our served organisations
- Strengthen cooperation with eduCSIRT.hu (KIFÜ) and other Hungarian CERT/CSIRTs
- **Research organisations?**
- **Work on ISO 27001 re-certification**

21

Agenda

14.00	Welcome and introduction	Alf Moens
14.05	Summary – Where are we now with NIS-2	Alf Moens
14.20	Restena and R&E in Luxembourg	Gilles Massen
14.30	NIS-2 Project at SURF	Jeroen Schuring / Alf Moens
14.40	NIS-2 in Hungary	János Mohácsi / Alf Moens
14.50	NIS-2 in Austria	Christian Panigl / Alf Moens
15.00	NIS-2 at GÉANT	Alf Moens
15.10	NIS-2 Position Paper	Stratix Consultancy
15.20	NIS-2 mapping on GÉANT Security Baseline	Šarūnas Grigaliūnas
15.40	Questions and Answers, discussion	
	Conclusions, Next steps and closing	
	What's next? NIS-2 Infoshare V	

22

A Perspektive on NIS2 for e-Infrastructures in Austria

Christian Panigl, Head of ACOnet & Vienna Internet eXchange @ UniVie

E-IRG Workshop, June 2023, Malmö

23

24

ACOnet / VIX / UniVie Context

- **ACOnet** (the Austrian NREN)
  - is represented and operated by the University of Vienna (UniVie) IT department, as a „joint infrastructure“ together with other universities in Austria
  - dedicated division for ACOnet & VIX
- **VIX** (Vienna Internet eXchange)
  - is owned and operated by the University of Vienna
  - shared team for ACOnet & VIX operations (15 people in total)
  - is already an „essential service“ under NIS

2

24

25

ACOnet & UniVie context extended

- “Supplier” for nic.at GmbH (.at TLD Registry)
  - another team of 15 people for
  - SW development, .at registry & DNS operations
  - nic.at = ISO27k & NIS operator of essential service

therefore:

- ACOnet & VIX team “NIS(2)-ready”
- good communication channels with CERT.at and NIS authorities

3

25

26

ACOnet community

- ACOnet has >250 participants
  - universities and other HE institutions
  - research institutions (big and small)
  - museums, libraries, …
  - but also (all) ministries and regional governments
  - and some healthcare institutions
- "some" NIS2 awareness
  - ArgeSecur community group (for HE)

4

26

27

Risks and Unknowns wrt NIS2

- National implementation details yet unclear
- Who will be designated essential / important?
- Effect on ACOnet POP locations & operators
- Additional costs!
- Effect on other e-Infras (e.g. VSC.ac.at)
- Supply chain regulations?
- Drain on ressources
- Degraded work climate

5

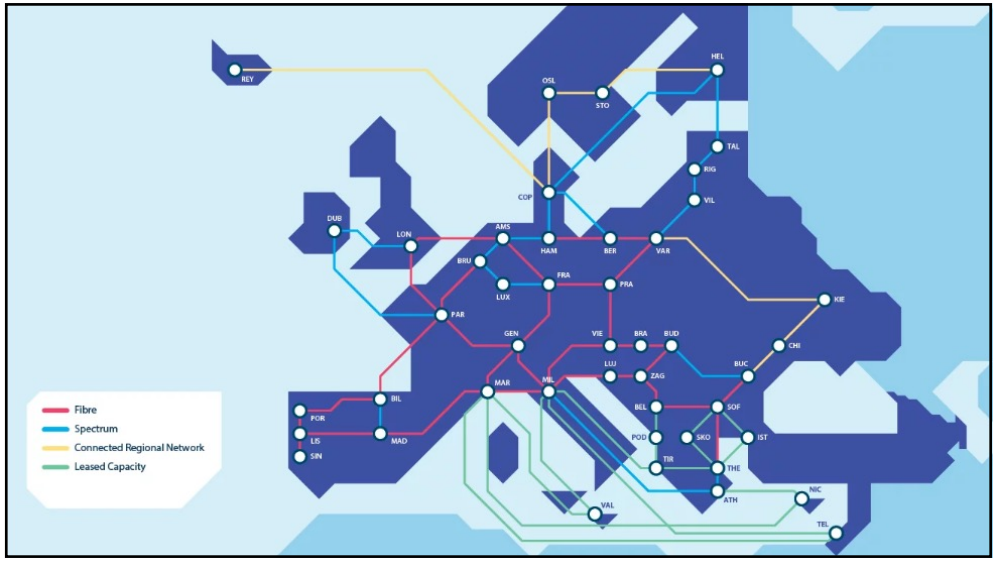
27

28

Agenda

14.00	Welcome and introduction	Alf Moens
14.05	Summary – Where are we now with NIS-2	Alf Moens
14.20	Restena and R&E in Luxembourg	Gilles Massen
14.30	NIS-2 Project at SURF	Jeroen Schuring / Alf Moens
14.40	NIS-2 in Hungary	János Mohácsi / Alf Moens
14.50	NIS-2 in Austria	Christian Panigl / Alf Moens
15.00	NIS-2 at GÉANT	Alf Moens
15.10	NIS-2 Position Paper	Stratix Consultancy
15.20	NIS-2 mapping on GÉANT Security Baseline	Šarūnas Grigaliūnas
15.40	Questions and Answers, discussion	
	Conclusions, Next steps and closing	
	What's next? NIS-2 Infoshare V	

29



30

31

GÉANT

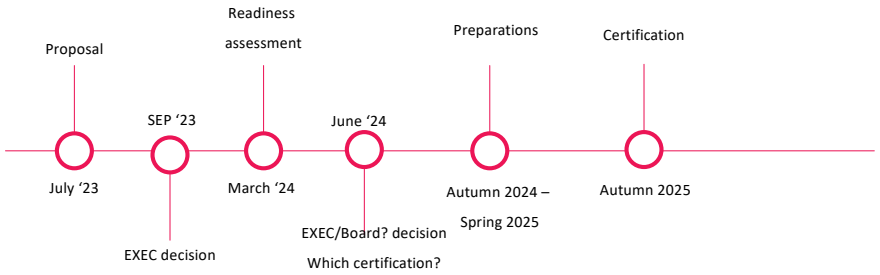
Networks • Services • People

31

32

33

Timeline Certification



34

35

What is the impact of NIS-2 for your organsiation?

It will depend!

Position Paper on Impact NIS-2 fron NRENs in different positions

Independend research and advice

Stratix

35

36

Stratix

NIS2 for NRENs

a Call to Action

36

37

STRATIX report - Summary

- No silver bullet
- Identify if you are in scope
- Compliant, try to minimize impact
- Use existing frameworks
- Engage with your autorities

- NIS2 will not go away: Find a balance between binary tech thinking and nuanced regulatory reasoning

Stratix

37

38

STRATIX report - Considerations

- Many services are in scope
- Part of a patchwork of regulations: NIS2, CER, CRA, GDPR
- Impact outside of EU(27)
- CSIRT network will change
- Supply Chain effects

Stratix

38

39

STRATIX report – Solutions to Consider

- Reshuffle services in the organisation
- Sector specific regulations may intervene
- Halt services or buy services
- Catalyst for change
- Choose a framework that fits you best
- Start with a risk-based analysis

Stratix

39

40
40 | GEANT.ORG
STRATIX report - Recommendations
• Accept that the world has changed
• Implement a framework
• Work together in the GÉANT network
• Work together with your clients
• Talk to your government
Stratix

40

41
41 | GEANT.ORG
Questions?
Remarks?
Stratix

41

Agenda

14.00	Welcome and introduction	Alf Moens
14.05	Summary – Where are we now with NIS-2	Alf Moens
14.20	Restena and R&E in Luxembourg	Gilles Massen
14.30	NIS-2 Project at SURF	Jeroen Schuring / Alf Moens
14.40	NIS-2 in Hungary	János Mohácsi / Alf Moens
14.50	NIS-2 in Austria	Christian Panigl / Alf Moens
15.00	NIS-2 at GÉANT	Alf Moens
15.10	NIS-2 Position Paper	Stratix Consultancy
15.20	NIS-2 mapping on GÉANT Security Baseline	Šarūnas Grigaliūnas
15.40	Questions and Answers, discussion	
	Conclusions, Next steps and closing	
	What's next? NIS-2 Infoshare V	

42

GÉANT Security Baseline

1 - Baseline
Maturity level 1 matches the title of this framework and defines the so-called "GÉANT Security Baseline". This level defines a GÉANT wide minimum of security and is expected to be met by most NRENs by default and implemented by all NRENs in the short term. This level mainly contains basic requirements that form the basis for an effective security program in an organisation. NRENs should ensure compliance with this level and implement missing requirements as quickly as possible.

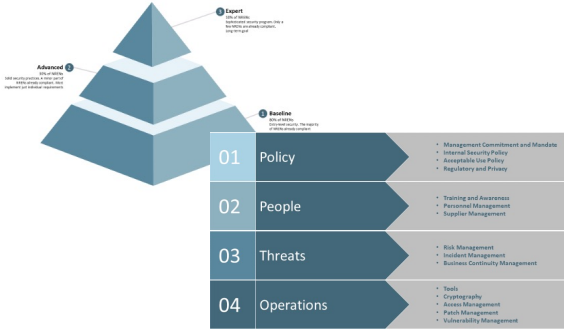
Scope: minimum requirements for each organisation

2 - Advanced
Maturity level 2 builds directly on the baseline requirements and extends the modules mainly with organisation-specific adaptations. This level defines modules of a mature security program and provides a good foundation for security management. It represents the medium to long-term goal for NRENs to achieve in order to solidly establish and improve security management. It is expected that most NRENs are partly compliant by implementing just individual requirements and the percentage of fully compliant organisations will grow steady.

Scope: medium to large organisations or such that offer important services or providing access to research collaborations.

3 - Expert
Maturity level 3 is the highest level and requires a deep understanding of security management and security program. It is expected that only a small part of NRENs will reach this level in the near future. Depending on the services offered, the business cases supported and the risk assessment of your own organisation, some or all of the criteria from this level may be relevant. It is designed as a long term strategic goal for NRENs.

Scope: organisations processing sensitive and critical information or providing critical services and infrastructure



43

How can we help?

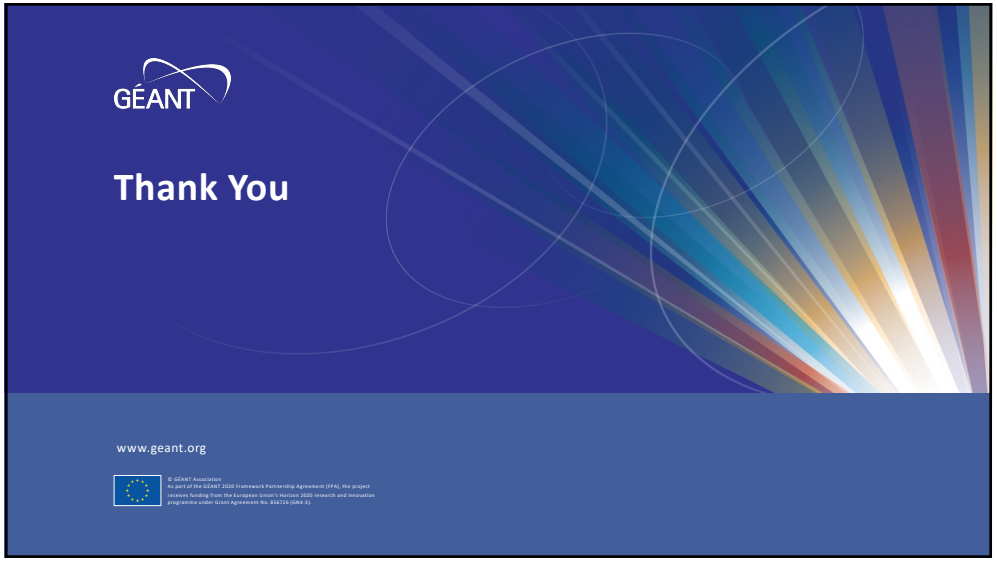
- GN5-1 WP8 T1: Best practices, guidelines and baselines
- SIG-ISM wiki pages: https://wiki.geant.org/display/SIGISM/NIS-2+Directive
- Infoshare V : November 2023

44

Questions?

Remarks?

45


GÉANT
Thank You
www.geant.org
© GÉANT Association
As part of the GÉANT 2020 Framework Partnership Agreement (FPA), the project
receives funding from the European Union's Horizon 2020 research and innovation
programme under Grant Agreement No. 856726 (GN4-3).

46