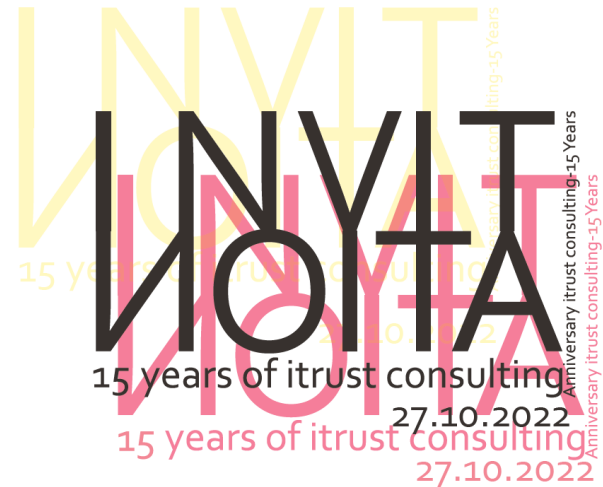




Move securely within the cyberworld



15 years anniversary

itrust consulting s.à r.l.
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Fax: +352 26 710 978
Web: www.itrust.lu

Dr. Carlo Harpes
Founder and Managing Director

27 Oct 2022

Order of the Day

14:30 – 17:30

Presentation of current research projects:

- 1) **CyFORT** (Cloud **Cy**bersecurity **F**ortress of **O**pen **R**esources and **T**ools for Resilience) for enhanced cybersecurity solutions, using open specifications with a focus on cloud infrastructure, by itrust consulting;
- 2) **Eagle-1**: Satellite-based quantum key distribution, by SES;
- 3) **Panel discussion**.



- short refreshment breaks included -



14:00
Registration
and coffee

Technical workshop on activities in
Research, Development, and Innovation



17:30
Arrival and
reception
drinks



Prof. Dr Peter Y.A. Ryan,
APSlA, SnT, uni.lu:
Keynote
'Securing Elections,
Trust but Verify'



18:30
Academic
Symposium

intro by
Gauthier Crommelinck,
Ministère de l'Économie

Concert
JazzFellas



Alan Kuresevic,
CEO,
SES techcom:
'Eagle-1'



Concert
JazzFellas



Dr Carlo Harpes,
Managing Director,
itrust consulting:
'A brief history of
itrust consulting'



Concert
JazzFellas



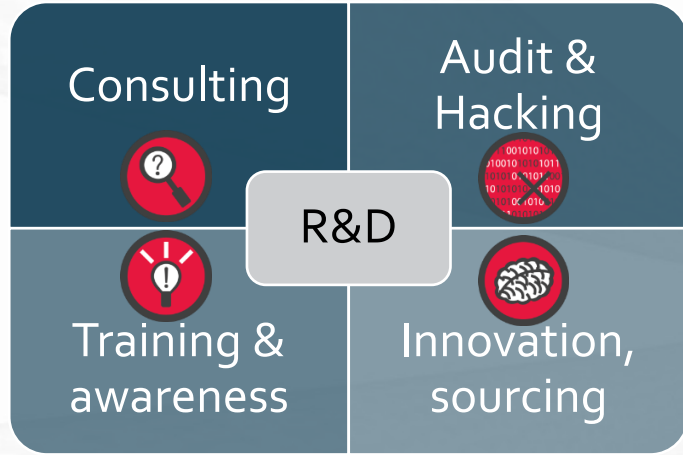
Dr Arash Atashpendar,
head of R&D,
itrust consulting:
'A new R&D company is
created'



Concert
JazzFellas



20:00
Walking Dinner



Awarded
Startup of the year
2008 – Luxembourg ICT awards

Skills / products

- Audits: ISMS, data protection
- Penetration testing
- Social engineering
- Certification and accreditation
- Comp. Emergency Response Team
- Secure software development
- Cryptographic software
- R&D (H2020, national, ESA)
- Risk management

Expertise

- Common Criteria
- Cryptographic key management
- Cryptography (classical, quantum, post-quantum)
- Information and coding theory
- Algorithm design and analysis
- Security protocols
- Software verification and validation
- Security analysis
- Secure and security software



- **Our moto: Out-of-the-box Thinking**
- **2007-2017:**
 - **Tailoring information security to business requirements**
 - Combining R&D and Consulting
 - Interdisciplinarity beats competition
- **Since 2017:**
 - **Move securely within the cyberworld**
 - Be certified before your customers ask it of you!
 - Run a single management system!
 - Be prepared for disruptive changes!
 - You don't decide!

SECurity as a Service (SECaaS)

A security fit for you

A swiss knife for your security

A customised service to implement a monitoring service realizing specific security sourcing missions. itrust provides off or regular basis onsite at your organization.

Pool of competencies related to security

For a SME, implementing, maintaining and improving a lack of competencies or methodologies.

It is better to base your effort on a security team already in the core business.

Total flexibility

- Onsite or remotely
- Adapted to customers' responsibility org-chart and to their type of management
- itrust expertise resource as an internal service for you
- Control of cost and budget for defined objectives



Data Privacy – compliance with GDPR for SME's

Advice and support to comply with the requirements of the European Regulation, tailored to the type and size

of your organization. Extract of important subjects:

- document context, purposes and data treatment register,
- manage incidents, documentation and communication,
- accomplish Data Protection Impact Analysis (DPIA) and compliance roadmap,
- optimize your data protection statement.

"be GDPR compliant"

☒ Description of our GDPR service offer

☒ Request your GDPR service offer



et of your company, by
ation missions on a one-

a hard job: lack of time,

curity work in addition to



Integrated ISMS

Information Security Management System

Système de Management de la Sécurité de l'Information (SMSI)
Politique de la sécurité de l'information et de la protection des données (SMSI-SecuInfo)

Système de management de la sécurité de l'information (SMSI)
Charte de bonne conduite en sécurité de l'information et protection des données (BE-Charte)

Système de management de la sécurité de l'information (SMSI)
Politique du SMSI (Sm-SMSI)

Système de management de la sécurité de l'information (SMSI)
Politique de sécurité de l'information et de la protection des données (EHTL-PoliSecInfo)

Déclaration concernant la protection des données à caractère personnel des élèves et des parents d'élèves (Bilek-DeclarationsEleves)
1 Informations générales
2 Principes du Schulsyndikat Bilek

Système de management de la sécurité de l'information (SMSI)
Politique de sécurité de l'information et de la protection des données (ACN-PoliSecInfo)

Approbations			
Nom	Rôle	Responsabilité	Signature
Carlo Harpes	DPO	Validation	X
			Carlo Harpes
			Digitally signed by Carlo Harpes Date: 2021.05.14 12:11:48 +01'00'



GEMENG

rousper
mompech

Le RGPD : Droits et obligations
Présentation au personnel



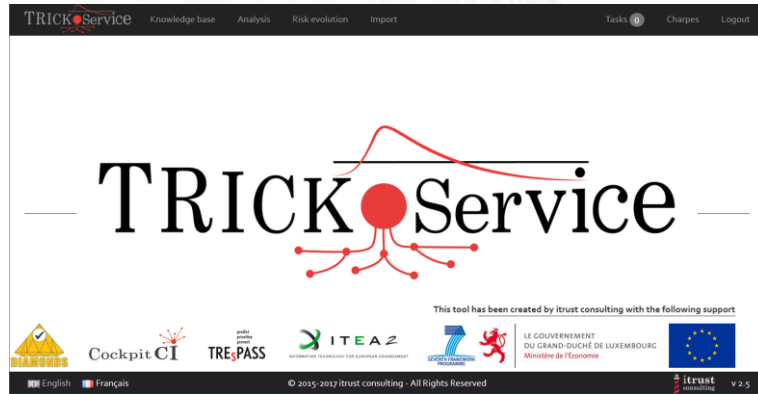
- We write your documents.
- We consult you to improve your management.
- We deliver you a set of 27001 compliant policies and procedures tailored to your needs.

Analyse de risques sur base de l'activité PSF en 2021 (IC-RAR-2021)

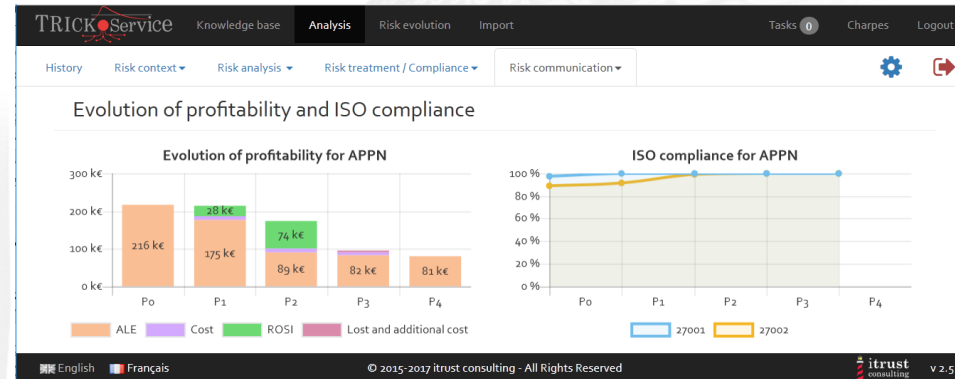
Informations générales
Référence: 1.1 Version: 1.0 Etat: Final Gestionnaire: Françoise Henschert Date d'application: 31/07/2022 Classification: Restreint

TRICK Service

Tool for Risk management of an ISMS based on a Central Knowledge base

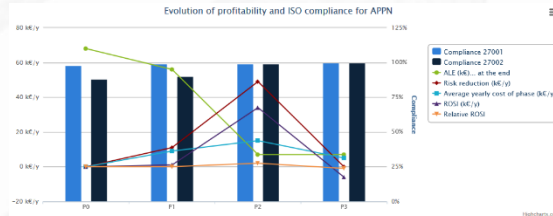
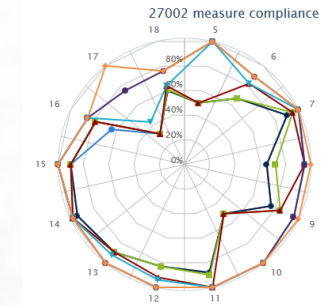
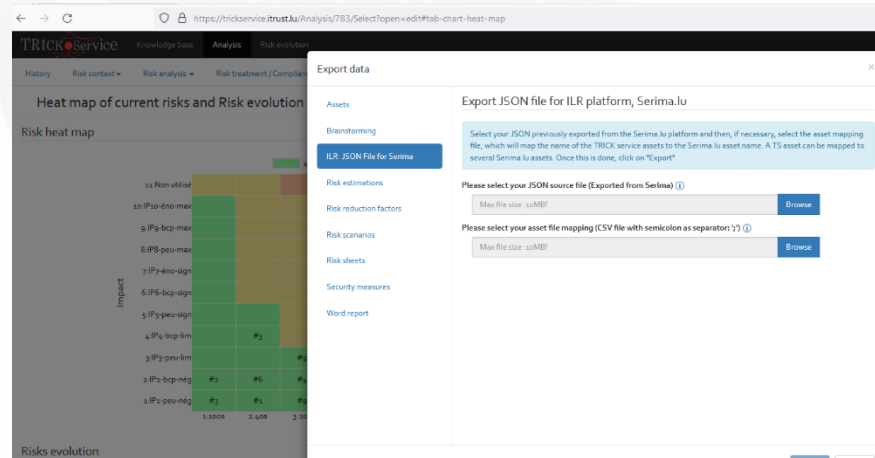
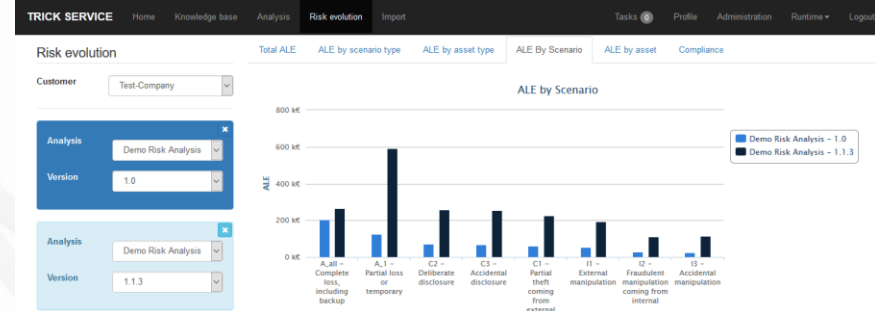
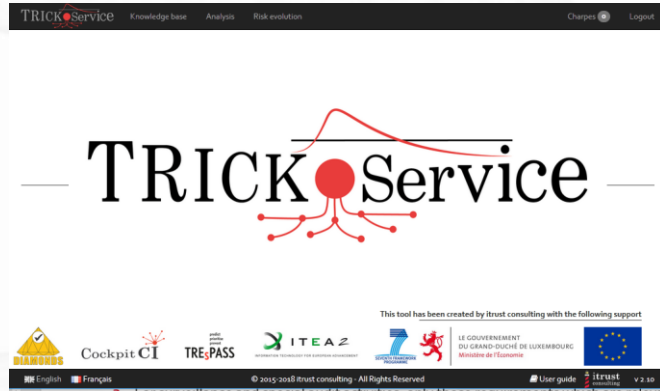


1. Context & assets valuation (cf.2 7005, 29134)
2. Gap analysis 27001, 27002, 29151, 22301, 27701
3. Qualitatively assess threats, vulnerabilities, risks;
4. Quantified assessment of impacts and likelihoods;
5. Risk treatment plan, sorted by phases and ROSI;
6. DPIA compliant to GDPR, RAR compliant to CSSF.
7. Impact valuation for energy sector
8. Json interface for ILR



Tool for Risk management of an ISMS based on a Central Knowledge base

TRICK Service



CERT: Computer Emergency Response Team

- Incident Response
- Forensic Investigation
- Malware Analysis
- R&D
- Participation to international conferences (Defcon Las Vegas, hack.lu)
- Knowledge transfer (APT1: technical backstage)

itrust consulting CERT respects the incident-handling guidelines provided by NIST:

- Preparation
- Identification
- Containment
- Eradication
- Recovery
- Follow-up

What we learned operating a CERT

- a lot on threats and malware,
- that in the future, all organisations SHALL manage how to react to security incidents, i.e., have CERTs as partners / subcontractors.

Ethical Hacking

- Penetration tests
- Vulnerability Assessment
- External Vulnerability Scans



TF-CSIRT
Trusted Introducer



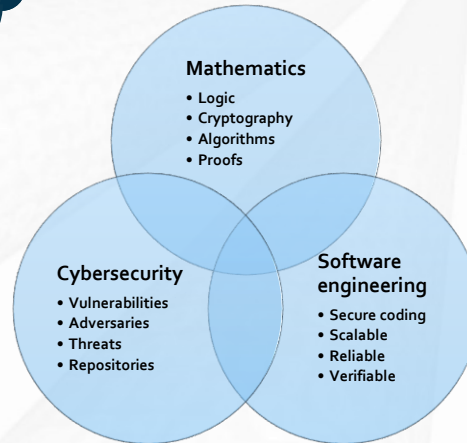
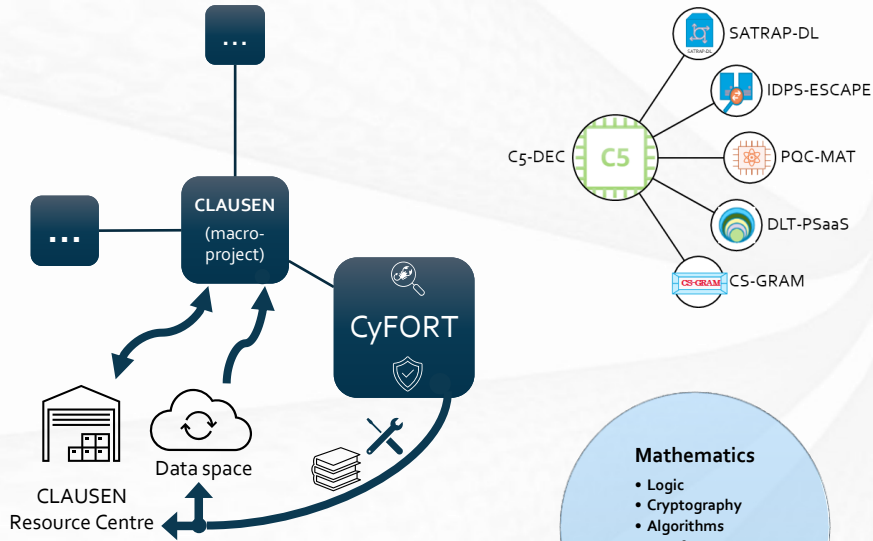
- **On-going projects**

- **CyFORT, ESA-QUARTZ and ESA-Eagle-1**
- **H2020-Token:** Transformative impact of disruptive technologies in public services
- **Critisec:** Critical Infrastructure Security

- **Former projects**

- **H2020 - ATENA:** Advanced Tools to assEss and mitigate the criticality of ICT compoNents and their dependencies over Critical InfrAstr
- **H2020 - bloTope:** Building an IoT OPen innovation Ecosystem for connected smart objects
- **MinEco - SmartGrid Luxembourg Cockpit:** Real-time risk monitoring tool for critical infra.
- **FNR - IDS4ICS** PhD on Intrusion Detection Sys. and Risk monitoring for Industrial Control Sys.
- **FP7 - CockpitCI:** Cybersecurity on SCADA: risk prediction, analysis and reaction tools for Critical Infrastructures
- **FP7 - TREsPASS:** Technology-supported Risk Estimation by Predictive Assessment of Socio-technical Security
- **ITEA2 - DIAMONDS:** Security Testing Tool development
- **ESA - LASP:** Localisation Assurance Service Provider (POC)
- **FP7 - Liveline:** Live ICT services Verified by EGNOS to find Lost Individuals in Emergency situations
- **FP7 - MICIE:** Design of a risk prediction tool for interdependent Critical Infrastructures
- **CELTIC - BUGYO Beyond:** Building security assurance in open infrastructure beyond
- **CIPS - SPARC:** Space Awareness for Critical Infrastructures
- **FP7 - i-Going:** i-Galileo indoor navigation (Galileo signal enabled by pseudolites for indoor navigation)





Resource Centre (RC)

- Open-source repositories
- Documentation
- API description
- Open standards

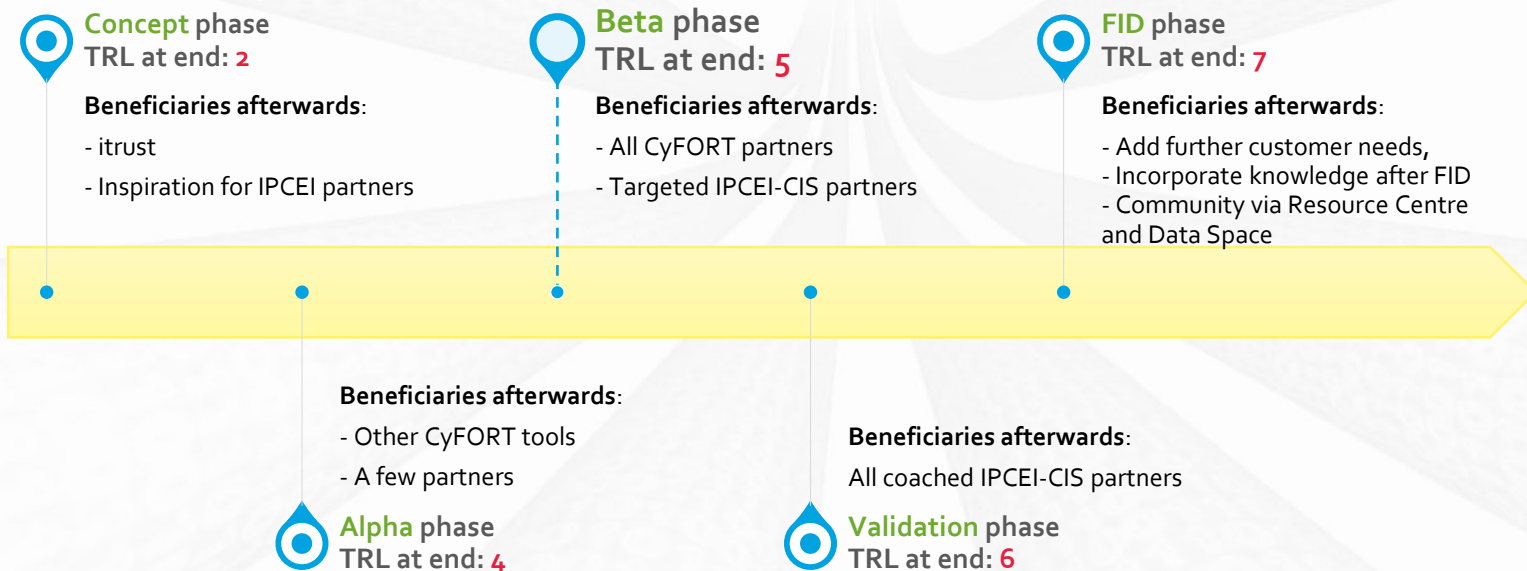


Cybersecurity solutions

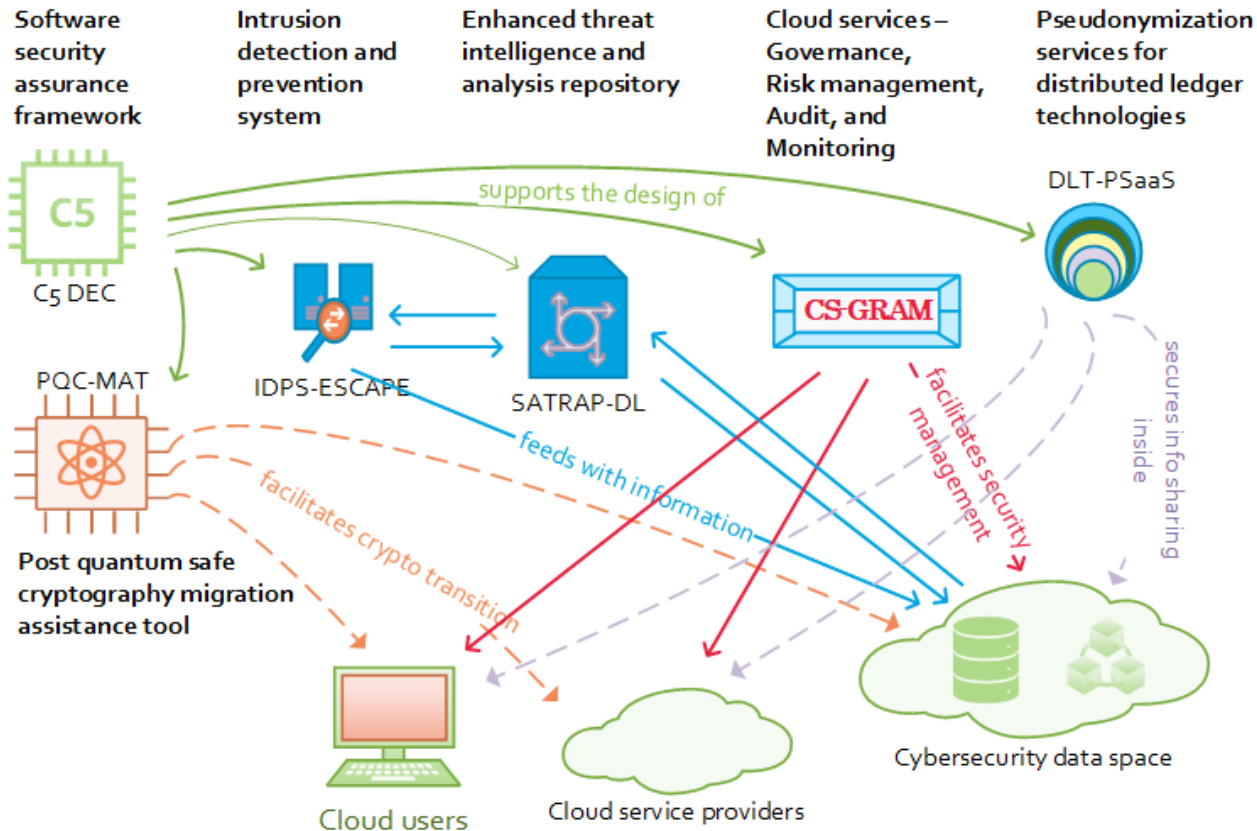
- Enhanced and open for cloud infrastructure
- Core design paradigm
 - Security
 - Interoperability
- Ensured by adopting
 - Common Criteria (CC)
 - EU CSA
- Safeguard supply chain
- TRL 7, for all tools but one
- Cross-cutting security
- Open-source
- Permissive licences



CyFORT defines 6 work packages, each resulting in a software product & service



CyFORT outcome overview



Many Open Source Cybersecurity tools
To be designed and implemented
by itrust consulting
and ...

SC27/WG 5 Hybrid meeting in Luxembourg



Copyright Alex Anyfandakis, peaceadvocatephoto

- **Missing active contributions [and implementation]**
 - Mainly public sector implementors and large organizations
- **Seldom, but still present: Missing global thinking**
 - Data protection commission: developed national certification scheme (CARPA) with specific certification rules instead of promoting 27701 and 17065 certification rules
 - NIS (Network information security) regulator ILR mandating risk reporting on short notice in an undocumented JSON [...] instead of using the operators' fully documented risk report based on more precise assessments.
- **Missing political will to enforce cybersecurity standards**
 - No obligation for norm or cybersecurity rules for essential service providers.
 - Mandate to create an ISMS for the public sector deployed by the Prime Minister in 2016 but then withdrawn upon complaints related to missing resources and autonomy.

- **27001 certification:**
 - 40 and 93 sites (ISO survey in 2021),
 - Public sector: CTIE, LuxGovSat, Incert, Sigi
 - Large entities: CREOS, KPMG, POST, Proximus, PWC Luxembourg, SES...
 - SME: Excellium, itrust consulting, Labgroup, LuxConnect, LuxITH, Numen Europe, VBS, Westpole...
- **27701 certification on "Privacy Information Mgt System"**
 - itrust consulting, not yet under accreditation (OLAS active support needed)
- **22301 (BCM):** 7 and 45 sites; **9001 (Quality):** 152 and 362 sites
- **2 national risk management tools**
 - TRICK service (free-to-use) by itrust consulting
 - Monarc (open source) by MinEco
- **Many open source Cybersecurity tools**
 - MISP, malwasm, draw.trickservice.com, ...

- **Continuously ISMS updated**
 - Migration to 27001:2022 and 27005:2022 (published this week)
 - Full restructuring of the ISMS and policies for certified companies
- **Cloud Security challenges**
 - Including dependencies, to be addressed in CyFORT
- **Missing rigour and structure in Development processes**
 - C5-DEC open-source tool and ISO 12207+Hermes-based process
- **New Cybersecurity challenges**
 - Need for intrusion detection, threat intelligence, knowledge sharing (CyFORT)
- **Additional compliance effort**
 - NIS2.0 on supply chain
 - Essential service requirement (cf. fear of Blackout after start of war against Ukraine)
 - Unstable economic situation (less money - more threats).

- **Our Staff**

- Who worked hard, and outside reasonable working hours, e.g., on the development, encoding of the ILR risk assessment in the last weeks

- **Our R&D funding entities, ESA, Europe, and MinEco**

- For continuous support for the benefit of our customers
- For assistance in creating research ideas, support in starting projects, and mainly in co-funding them

- **Our customers**

- For continuous trust in our service
- Flexibility and understanding if we are overloaded
- For following our advices and using our tools

- **Our partners**

- SES, Infrachain, Hitec, Finmecanica (It)...
- For accepting our contributions in their research projects

- **Lalux**
 - For giving us this splendid location
- **Martine Zehren**
 - For a great artwork for our 15th anniversary
- **JazzFellas**
 - For coming back in a slightly different composition
 - But still with excellent entertainment
- **Arash, Itzel, Peter, Ensufudine...**
 - For creating a spin-off company with us



itrust
consulting



Move securely within the cyberworld

Thank you



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