

Move securely within the cyberworld**itrust consulting s.à r.l.**

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15 years of itrust consulting

On 27 October 2022 itrust consulting celebrated its 15th anniversary, in the beautiful Lalux auditorium in Leudelange.

The first part of the event was dedicated to a technical workshop, where the current research projects were presented, namely CyFORT (Cloud Cybersecurity Fortress of Open Resources and Tools for Resilience) for enhanced cybersecurity solutions, using open specifications with a focus on cloud infrastructure, by itrust consulting, and Eagle-1 on satellite-based quantum key distribution, by SES and itrust consulting. These were followed by a panel discussion during which the technical experts who had given the talks earlier took questions from the audience.

In the second part, five expert speakers gave excellent presentations, providing clear messages about the future R&D activities of itrust consulting and its partners.

First, Mr Gauthier Crommelink, the leader on projects related to data economy, cybersecurity, and digital technologies at the Ministère de l'Économie gave a short introduction by emphasizing the extent to which cyber risks and cybercrimes have become part of the fabric of everyday life. He also outlined the supporting role of the Ministry of the Economy for research and innovation in cybersecurity and thanked itrust consulting for its continuous involvement in research and innovation projects in Luxembourg and its trusted relationship with the ministry.

As keynote speaker, Prof. Dr Peter Y.A. Ryan, full Professor of Applied Security at the University of Luxembourg, in his talk on 'Securing Elections, Trust but Verify!' provided an excellent overview of why "achieving transparency while guaranteeing the secrecy of votes is immensely challenging, arguably one of the greatest challenges facing the information security community"; such challenges are linked to providing trust to voters in the correct execution of elections and the announcement of their results. It was stressed that assurance of accuracy and privacy should be achieved with minimal trust assumptions and against a spectrum of powerful adversaries, from a spouse to a hostile nation state. Such adversaries go beyond what is usually studied in the information security literature as they may interact with the voters issuing instructions and demanding that they reveal private information such as passwords, credentials, etc. Furthermore, any voting system should be supremely usable and understandable by the electorate at large.

Mr Alan Kuresevic, CEO of SES Techcom, an SES group company, gave a brief introduction to 'Eagle-1', Europe's first Satellite-based Quantum Key Distribution system, aiming to be the first European satellite capable of establishing shared keys in a provably secure way. The project will provide an in-orbit demonstration of how secret keys can be shared between two given ground stations via a Low Earth Orbit (LEO) satellite. The LEO satellite acts as a relay overcoming the distance limits of ground-based QKD, via pairwise key sharing with ground terminals over very distant locations, enabled by exchanges of individual photons (encoding secret key information) between the satellite and a targeted ground station.

15 years of itrust consulting

The founder and managing director of itrust consulting, Dr Carlo Harpes, first recalled the motto 'Out-of-the-box Thinking' that itrust consulting presented five years ago, on the occasion of its 10th anniversary event and confirmed that the key messages are still valid today: "Be certified before your customers ask it of you!"; "Run a single management system!"; "Be prepared for disruptive changes!", and "You don't decide!". He then focused on additional support requests regarding Data Privacy and the extensive level of competence of the itrust consulting team. He showed extracts of policies and procedures that itrust consulting has written in the last years for more than 20 customers, many of which have achieved a 27001 certification, thanks to documents and risk assessments by itrust consulting. He particularly thanked his R&D team for tailoring the risk assessment tool TRICK Service to specific requirements by ILR, that had requested on a three-month notice to deliver almost 1000 mandatory and about 10k€ worth of optional risk parameters in a complicated and undocumented JSON format. Thanks to this update, 4 customers could assess these parameters in a structured way, partially deriving them from previous assessments and avoided entering all these values manually one by one via the web interface suggested by the regulator.

At the end of his presentation, Dr Harpes announced the creation of a spin-off company to consolidate the research and development activities to enable a more autonomous and focused approach.

Finally, Dr Arash Atashpendar, the head of Research and Development at itrust consulting provided a presentation of the spin-off company, called "itrust Abstractions Lab". The mission of this R&D lab is "to ensure the trustworthiness and security of cyber-physical systems by building upon solid mathematical foundations"; its vision is to design, analyse and build correct and secure systems by relying on two key pillars, namely cryptography and formal methods, while following an open research model and implying open-source software. Its main lines of work will be theoretical research, applied R&D, consulting in creating customized secure digital solutions and providing dedicated training in its main areas of research.

The academic symposium was enhanced by the young musical talents of the 'JazzFellas', who created a pleasant atmosphere through jazz interpretations of well-known songs, and by the presentation of a painting by Martine Zehren for this anniversary.

About itrust consulting

itrust consulting, an SME from Luxembourg specializing in Information Security helps its customers from both the public and private sectors protect their information against any divulgation, manipulation, or unavailability. Its services are related to building, implementing, and auditing certifiable Information Security Management Systems, assessing and treating risk with its own TRICK*FreeToUse tool, deploying security experts whenever needed (SECaaS, or Security as a Service), on request hacking of our customers and handling cybersecurity incidents (malware.lu CERT), or designing and operating security solutions for ICT. These services benefit intensively from co-funded national and European research projects.