



**ITU Kaleidoscope 2016**  
*ICTs for a Sustainable World*

**Certified security systems for  
sustainable cities of the 21st  
century**

**Dr. Simone Wurster,**  
TU Berlin, FG Innovation Economics  
[simone.wurster@tu-berlin.de](mailto:simone.wurster@tu-berlin.de)

**Irene Kamara**  
Vrije Universiteit, LSTS  
**Dr. Thordis Sveinsdottir**  
Trilateral Research Ltd.

**Bangkok, Thailand**  
**14-16 November 2016**

# Sustainability, Security and Need for Action

- ❖ 17 UN Sustainable Development Goals (United Nations, 2015) including:
  - Safe and sustainable transportation systems
  - Resource efficiency
  - Resilience to disasters by 2020
  - ...
- ❖ Security threats become more sophisticated
- ❖ Security solutions that encompass the UN goals needed
- ❖ European goal: a pan-European certification scheme for security systems (ESRIF, 2009, ECORYS, 2011)
  - Infrastructure must be improved and security must be enhanced
  - Technical challenge: societal risks
  - Market-related challenge: fragmentation of the European market for security systems

**Certification Seal:** third party attestation of specific standards



# Problems Associated with Current Security Certification Seals

- ❖ There are currently no certification schemes that meet pan-European needs due to:
  - Absence of transparency
  - Close relationships between schemes and members
  - No regulatory oversight
  - Lack of harmonization and common standards
  - Conflicts of interest
- ❖ No consideration for privacy although this is required by the new European General Data Protection Regulation (GDPR)
- ❖ Need for a certification scheme for security systems, which ensures a high level of security and privacy protection
- ❖ Specific need in the CCTV field



Photo Credit: [wordstream.com](http://wordstream.com)

# The 14 Requirements of Best Practice Seals

1. Valid and achievable objectives; clear definition of scope
2. Harmonized rules for implementation and use
3. Complementary legal rules
4. Robust and dynamic certification criteria
5. Clear and uniform framework
6. Support and confidence of key stakeholders
7. High quality, understandable, transparent, enforceable and globally accepted
8. Prerequisites for standards are sound and need-based
9. Rigorous application of standards
10. Dedicated oversight
11. Institutional co-operation
12. Effective monitoring and enforcement
13. Opportunities for review and improvement
14. Sustainability (European Commission, 2013)



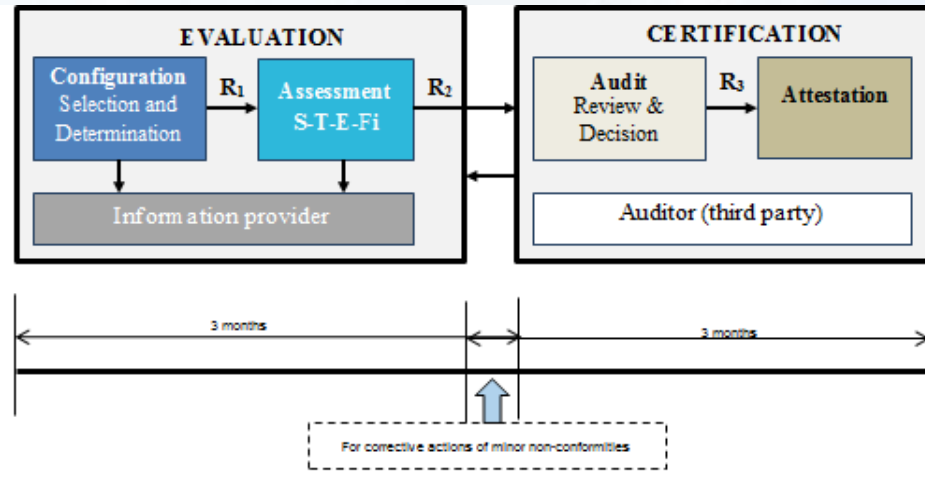
# CRISP Mission

The CRISP project mission is to develop an innovative evaluation and certification methodology for security systems, which:

- Contributes to measures that increase citizen trust in security technologies through evaluating social impacts of security systems and certification of systems that comply with the protection of fundamental rights
- Contributes to a more harmonised playing field for the European security industry, through acceptance of security systems across Europe, with no need for re-certification in each country
- Supports the goal to provide protection in an efficient manner.

# CRISP Certification and the STEFi Dimensions

## ❖ CRISP process



## ❖ CRISP dimensions

- **Security:** counters threats and reduces risk
- **Trust:** based on perceptions of users → transparency, openness, fairness and accountability
- **Efficiency:** economical use of technology and resources
- **Freedom infringement:** how a security system impacts personal freedoms and rights

# CRISP Evaluation and Certification Procedure

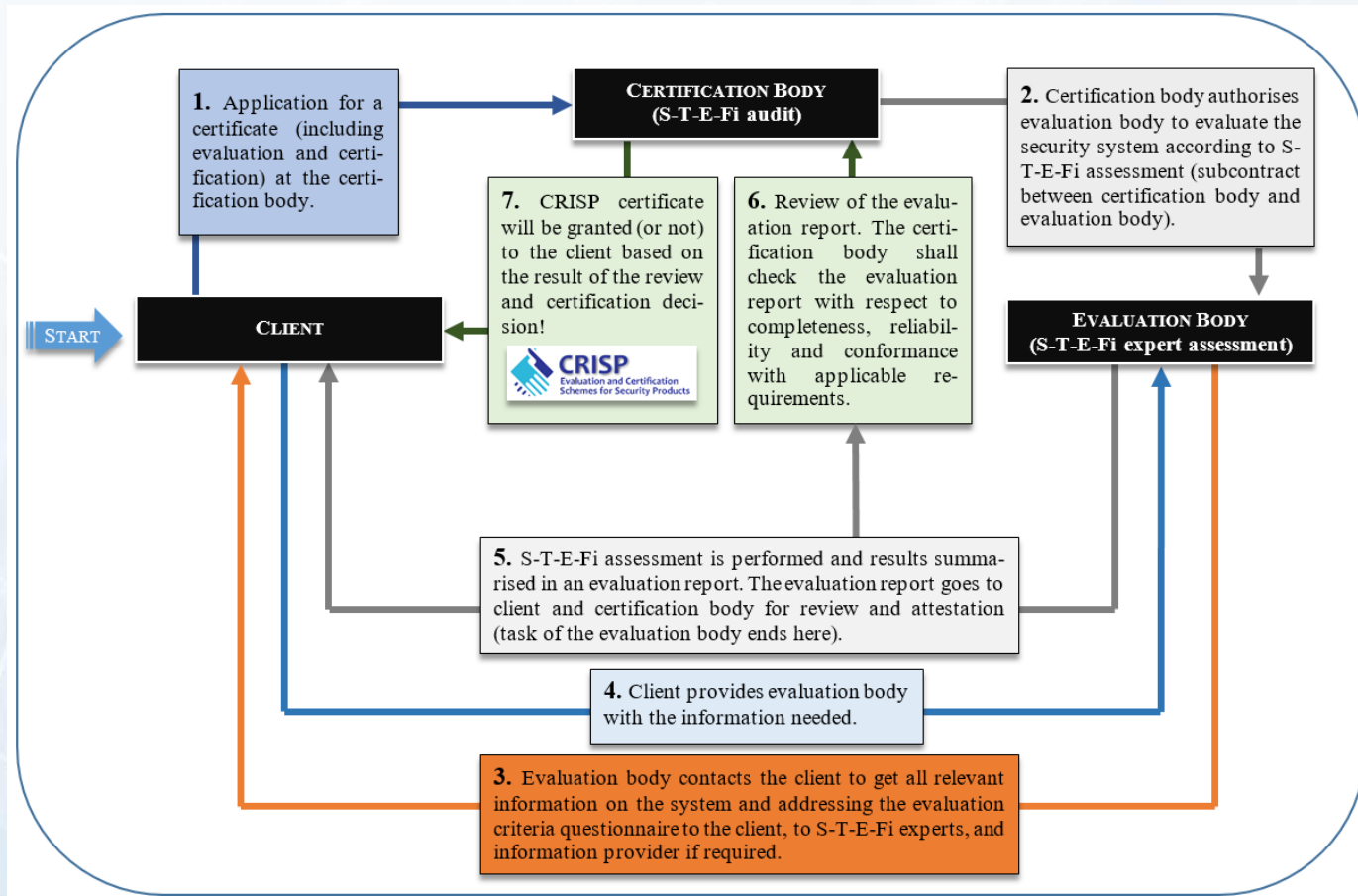


Figure: CRISP evaluation and certification and parties involved - overall picture

Source: @Wohlgemuth

# Project Methodology and Key Research Outputs

Building blocks of CRISP scheme:

- Innovative evaluation and certification methodology
- Certification Manual detailing procedural and organizational steps
- Roadmap for implementation of the proposed approach

Taxonomy of security systems

Analysis of stakeholders views



Review of standards, certification, and accreditation for security systems

Analysis of core STEFi dimensions and legal requirements

CEN workshop agreement

Source: Lau (2016) modified



# CRISP's CEN Workshop Agreement

- ❖ Fast-track standardisation at CEN
- ❖ Key elements:
  - Guidelines
  - Installed security systems
  - Evaluation process
  - S-T-E-Fi criteria
- ❖ Expected completion: March 2017

CEN-CENELEC/CWA

Date: 2017

CEN-CENELEC/CWA

Secretariat: NEN

## Guidelines for the evaluation process of installed security systems, based on the S-T-E-Fi criteria —

*Einführendes Element — Haupt-Element — Ergänzendes Element*

*Élément introductif — Élément central — Élément complémentaire*

ICS:

Descriptors:

Document type: CWA  
Document language: E



# Action Items

## CRISP Organization

- ❖ Engage relevant stakeholders and regulators early
- ❖ Establish an open dialog with EU and Member State law experts
- ❖ Ensure that added value is provided for end users
- ❖ Negotiate the use of the CRISP scheme and mutual recognition agreements with European certification bodies
- ❖ Promote CRISP certification via a marketing campaign to highlight the added value for end users in different markets
- ❖ Create a training program for relevant stakeholders

## External Stakeholders

- ❖ Partake in standards development
  - Industry/industry representatives and associations, European Union, regulators, European certification bodies, national bodies, relevant technical committees
- ❖ Participate in scheme formation
  - Industry/industry representatives and associations,...
- ❖ Identify potential conflicts of interests
  - European accreditation bodies, regulators, Member States
- ❖ Development complementary legislation
  - European Commission
- ❖ Advocate for and promote the CRISP scheme
  - European Commission, European certification bodies, Member States

# CRISP's Response to Good Practice Requirements

R*	F**	Explanation
1	✓	Clear scope of pilot area and future activities defined
2	✓	Foreseen in CRISP's roadmap
3	✓	CRISP criteria builds on EU regulations, etc.
4	✓	Builds on CWA and future standards
5	✓	Foreseen in CRISP's roadmap
6	✓	Specific activities in the project and action items for the CRISP organization

R*	F**	Explanation
7	✓	Builds on specific activities and action items for the CRISP organization, currently with an EU focus
8	✓	Builds on various activities with different stakeholder groups in the CRISP project
9	✓	Concept builds on the rigorous application of standards
10	✓	Based on CRISP's roadmap
11-13	✓	Foreseen in CRISP's roadmap
14	n.a.	Has to be analysed in the future

# CRISP's Contributions to Practice

- ❖ Benefits for providers of security solutions: “a passport for trade”
  - Elimination of the need to recertify in each EU country → saves time and money
- ❖ Benefits for urban management and operators of security solutions: broader societal trust
  - Inclusion of legal provisions
  - Enforcement of technical aspects
  - Integration of social, consumer and human rights
- ❖ Various additional societal benefits
  - Reduction in conflict of interests
  - Protection of personal privacy



Photo Credit: [huffingtonpost.com](http://huffingtonpost.com)

# Selected References

- CNIL, "Privacy Towards 2020: Expert Views, IP Reports, Innovation and Foresight. 1," 2012. [Online]. Available: [https://www.cnil.fr/sites/default/files/typo/document/CAHIER\\_IP\\_EN2.pdf](https://www.cnil.fr/sites/default/files/typo/document/CAHIER_IP_EN2.pdf).
- Commission of the European Communities, "Communication from the Commission - "A European security research and innovation agenda - Commission's initial position on ESRIF's key findings and recommendations", COM/2009/0691 final," 2009. [Online]. Available: <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52009DC0691&from=EN>.
- Barnard-Wills, D., *Privacy Seals Research*, Presentation at CRISP workshop for DPAs, Madrid 30 Sept 2016, 2016.
- ECORYS, "Security Regulation, Conformity Assessment & Certification, Final Report- Volume I: Main Report, Brussels," 2011.
- European Commission, Joint Research Centre, "EU privacy seals project. Comparison with other EU certification schemes: final report study deliverable 3.4," 2013.
- ESRIF, "ESRIF Final Report," 2009.
- United Nations, "Sustainable Development Goals," 2015. [Online]. Available: <https://sustainabledevelopment.un.org/topics/sustainable-development-goals>.
- Wurster, S.; Burnik, J.; Tomšič, A.; et al., "Final Roadmap and Implementation Plan. Deliverable D 6.1 of the CRISP project," 30 June 2016.