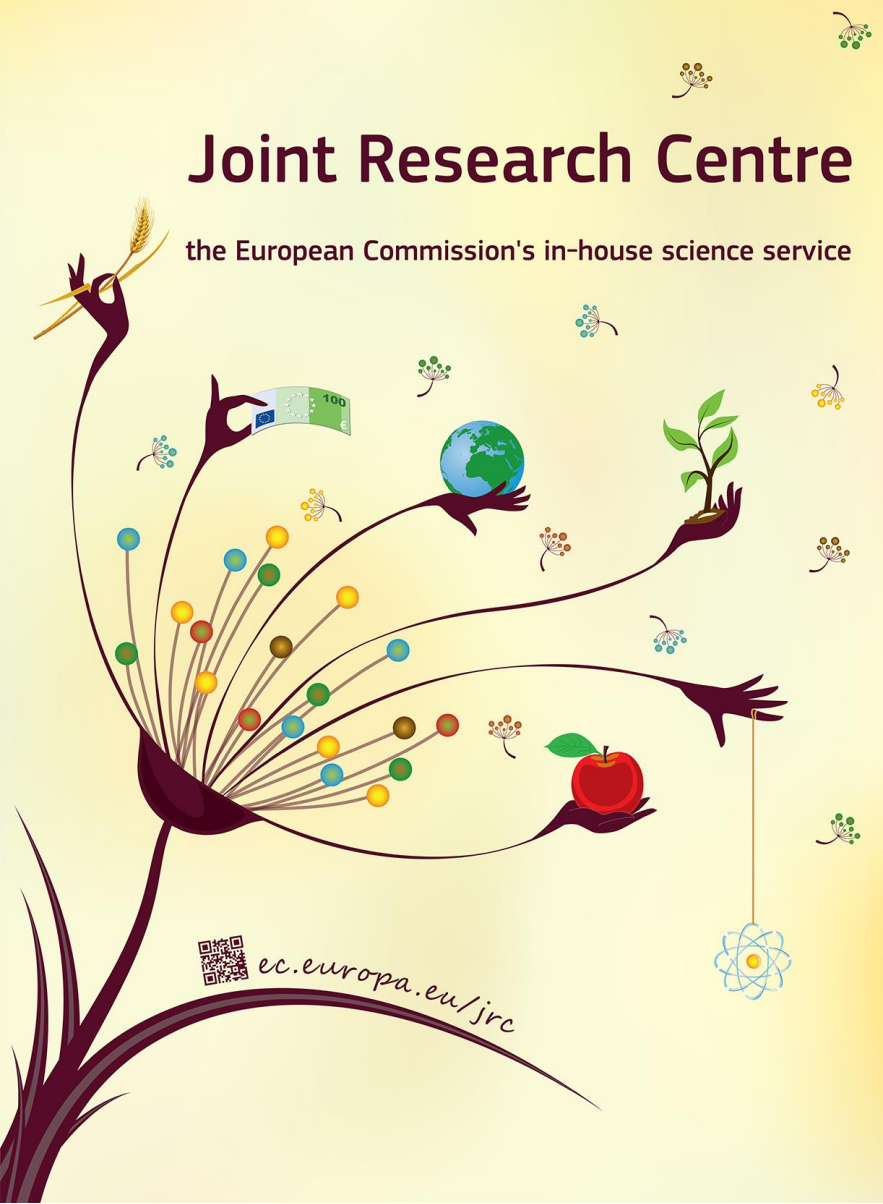




European  
Commission

# Joint Research Centre

the European Commission's in-house science service



ec.europa.eu/jrc

## European IACS Components Cyber-Security Compliance & Certification Scheme

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Alessandro Lazari  
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# ERNCIP's mission

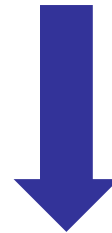
*Our mission is to foster the emergence of **innovative, qualified, efficient and competitive** security solutions, through the networking of European experimental capabilities.*



**Support the  
EPCIP**



**Support to the  
Digital Single  
Market\***



**Inventory of  
European Labs with  
testing capabilities**

**\*SCADA market is estimated to reach US\$32.70 billion by 2020**

# Aim of the Scheme

- Provide **flexible assurance levels** that can cover different devices of an **Industrial Automation Control System**
- Build the Scheme on **existing** and more **recognized cybersecurity requirement** and **security profiles**
- Incorporate together **Compliance** and **Certification** in a single scheme
- Simplify the **procurement** of **new equipment** through reference to the desired level of **compliance/certification**

# The TG's roadmap in 2014

## Two questions

1. Need for European certification of cybersecurity of IACS
2. If yes, conditions of feasibility for making it happen


JRC mandate

**TG**



\* C&C : Compliance & Certification

Further research & actions (2015-2020)



Proposals from the ERNCIP Thematic Group,  
"Case Studies for the Cyber-security of Industrial  
Automation and Control Systems", for a  
European IACS Components Cyber-security  
Compliance and Certification Scheme

Thematic Area  
Industrial Control Systems  
and Smart Grids

Paul THERON, Joaquin  
Sandro BOLOGNA, Alic

November 2014

The research leading to these results has received funding from the European Union as part of  
the European Reference Network for Critical Infrastructure Protection project.

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# The IACS Compliance & Certification Scheme

**LEVEL 4: THIRD-PARTY FULL CERTIFICATION**  
(Same as L3 + Process certification)

**Level 3**

**LEVEL 3: THIRD-PARTY PRODUCT CERTIFICATION**  
(Same as L2 + Robustness tests)

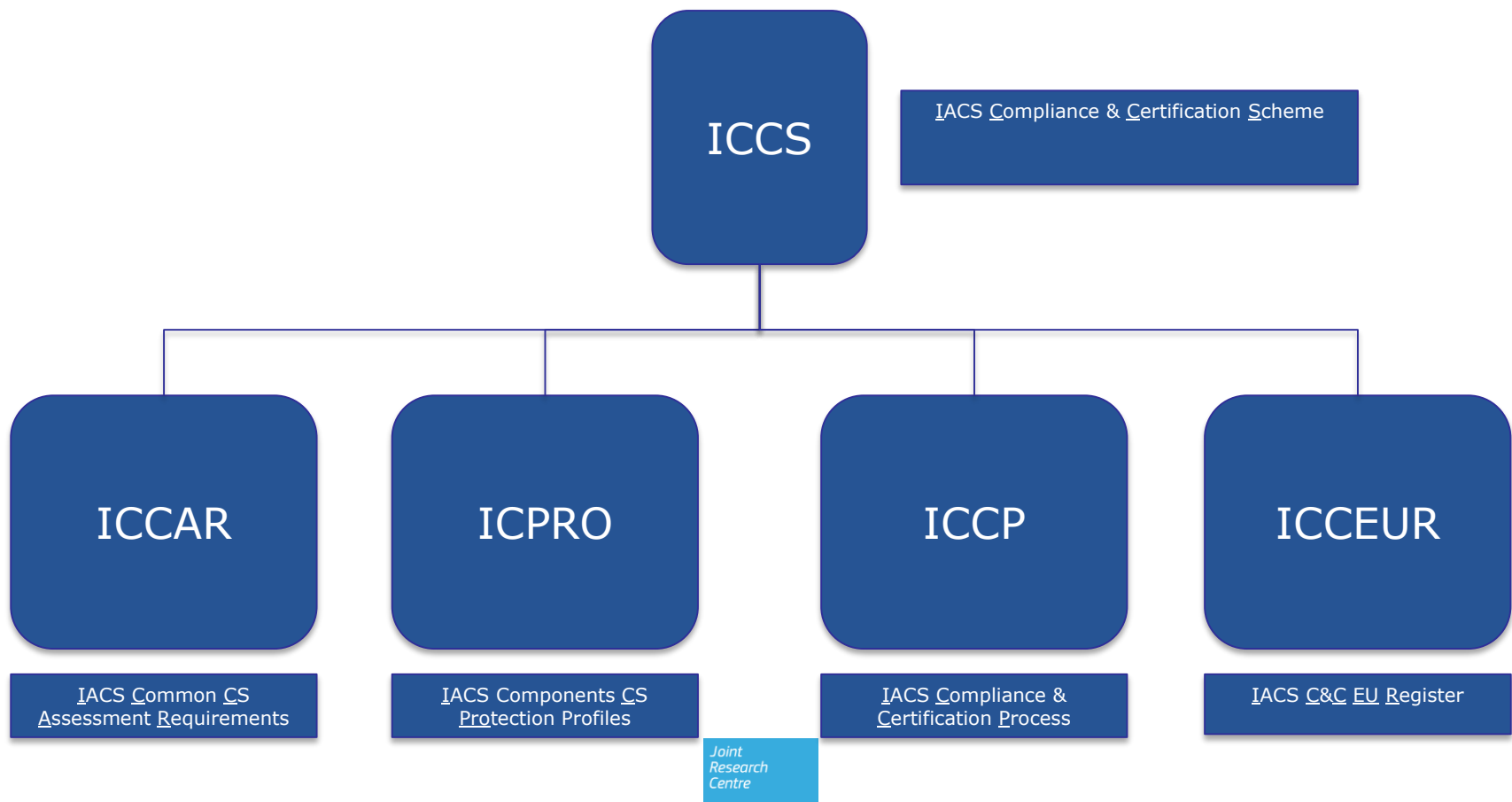
**Level 2**

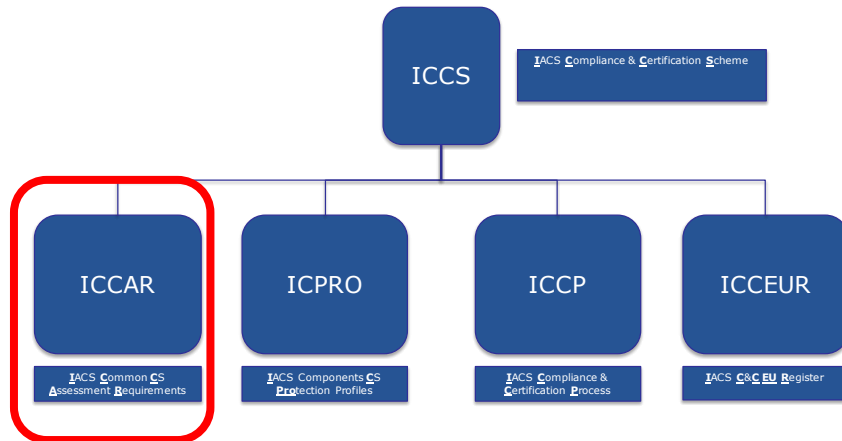
**LEVEL 2: THIRD-PARTY COMPLIANCE ASSESSMENT**  
(based on a generic product profile)

**LEVEL 1: SELF-DECLARATION OF COMPLIANCE**  
(based on a generic product profile)

**Level 1**

# The modules of the IACS Compliance & Certification Scheme





## IACS Common Cyber Security Assessment Requirements (ICCAR)

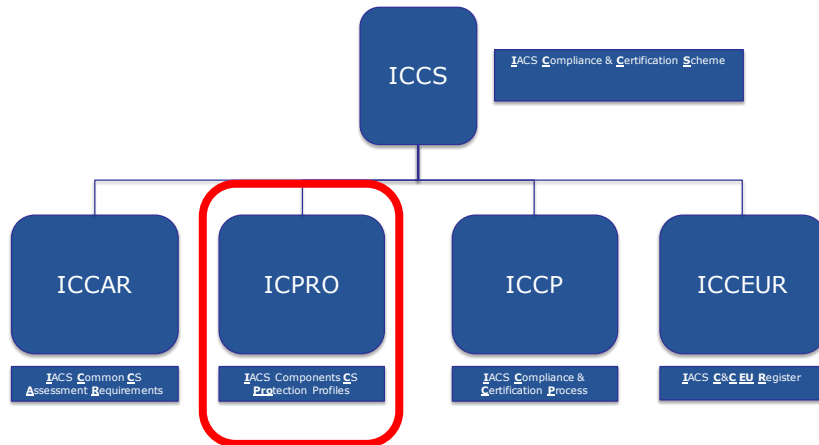
### The task:

- To extract from designated existing standards, their common good practices and requirements
- Organize them into a common classification covering an agreed set of domains of C&C: the definition of targets of evaluation, cyber-security engineering domains and practices, vulnerabilities assessment, development process assessment, cyber robustness testing.

### Cyber-security certification standards:

- IEC 62443 part 3/3;
- ISO 15408;
- NIST SP 800-82.

**Kick-Off Mtg: 12.02.2016**



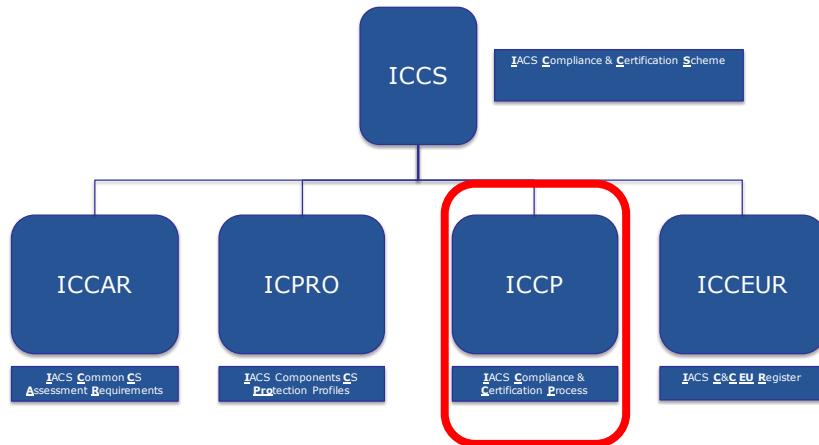
## IACS Components CS Protection Profiles (ICPRO)

### The task:

To define **Generic IACS Cyber-security Profiles** including classes of IACS products and target levels of cyber-security, operating and security environments.

**Kick-Off Mtg: waiting for input from ICCAR.**



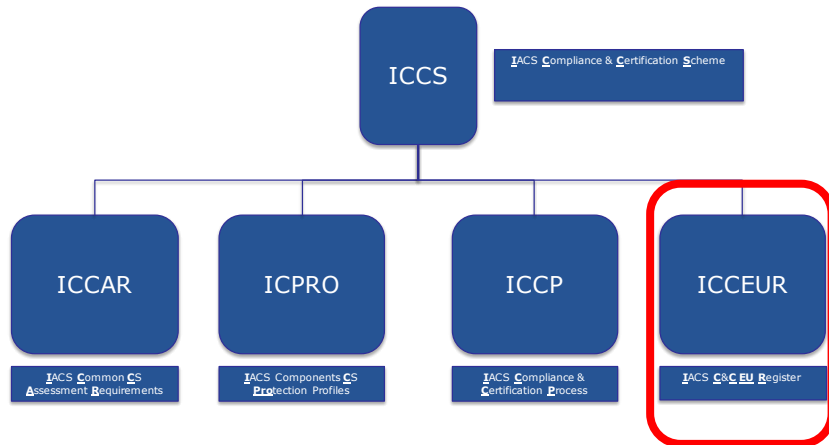


## IACS Compliance & Certification Process (ICCP)

### The task:

To define a common process for each of the levels of the proposed European IACS components Cyber-security Compliance & Certification Scheme.

**Kick-Off Mtg: waiting for input from ICPRO & ICCAR.**



## IACS C&C EU Register (ICCEUR)

### The task:

To develop a prototype of a database of C&C evaluated IACS products.

**Kick-Off Mtg: beginning of March 2016.**

# Wrapping up

- **Harmonizing** the approach towards the **compliance, certification** and **testing of IACS components** in the EU;
- Improve the **Cybersecurity** of **IACS components**;
- Support to the **Digital Single Market**
- Support to the **NIS Directive and Cybersecurity Strategy**

**Thank you for your attention!**

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