



# THE IMPORTANCE OF GOOD COMMUNICATION BETWEEN THE MANUFACTURER AND THE NOTIFIED BODY

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Software and ICT Challenges in Legal Metrology

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Research Institutes of Sweden





# Three have become one - RISE

The RISE institutes Innventia, SP and Swedish ICT have merged in order to become a stronger research and innovation partner for businesses and society.

- 2016 RISE had a turnover of just over 2,5 billion SEK
- 2 200 employees, 30 % with a PhD
- SME clients responsible for approx. 30 %
- RISE is notified body for a large number of product areas.
- Run 100s of test and demonstration facilities, open for industry, SMEs, universities and institutes

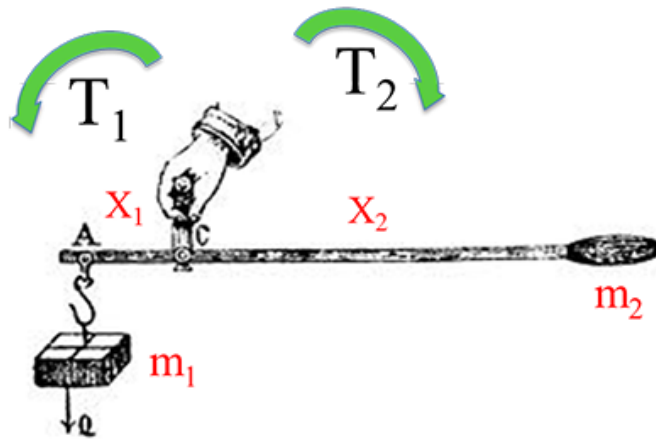




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- Competence
- Time schedule
- Understanding the requirements and the design
- The evaluation procedure
- Documentation
- Conclusions

Common objective:  
Measuring instruments  
of the expected quality

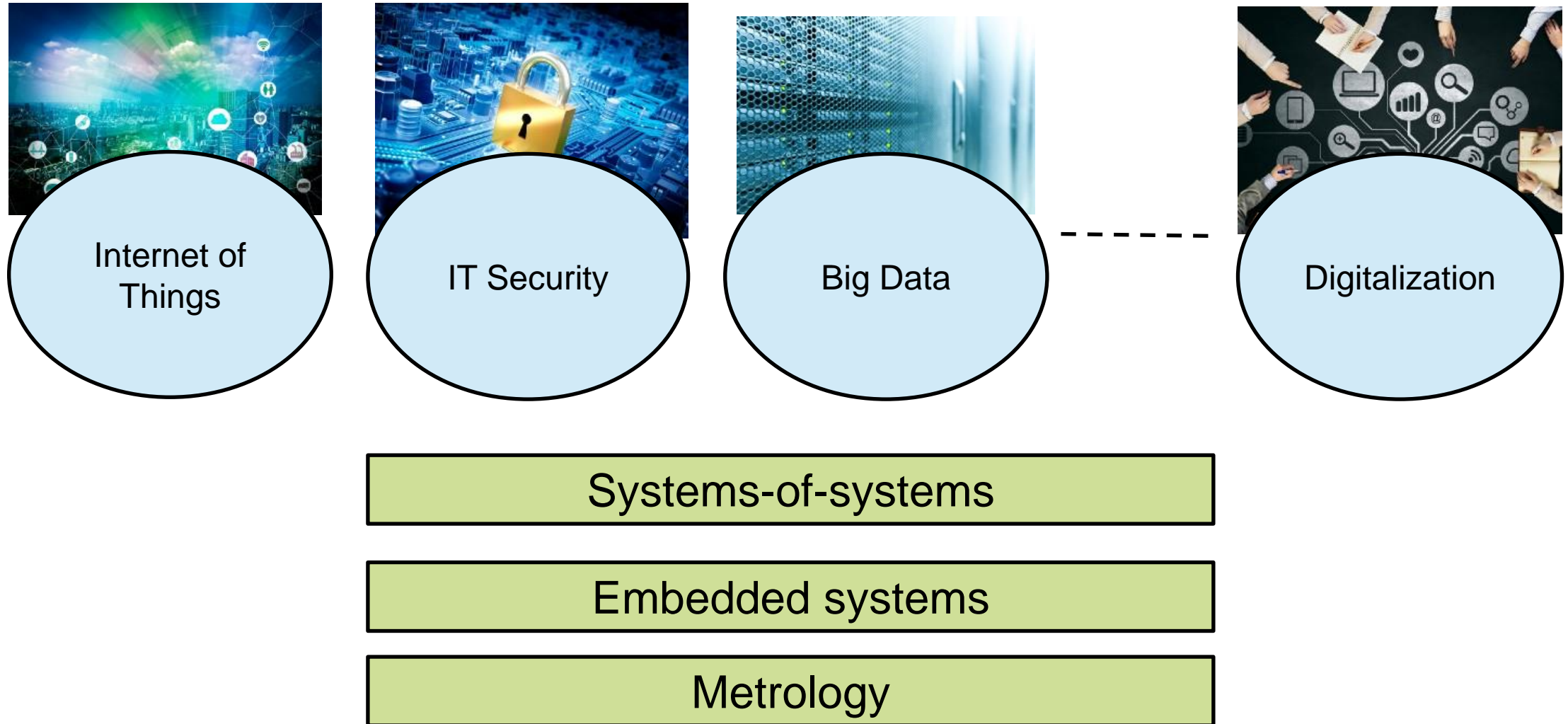


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# Competence for software and ICT in legal metrology





# Interfacing competences of the industry and the notified body

## The Manufacturing Industry

Metrology  
Software  
Electronics  
Internet of Things  
IT Security  
Digitalisation  
Marketing  
etc.



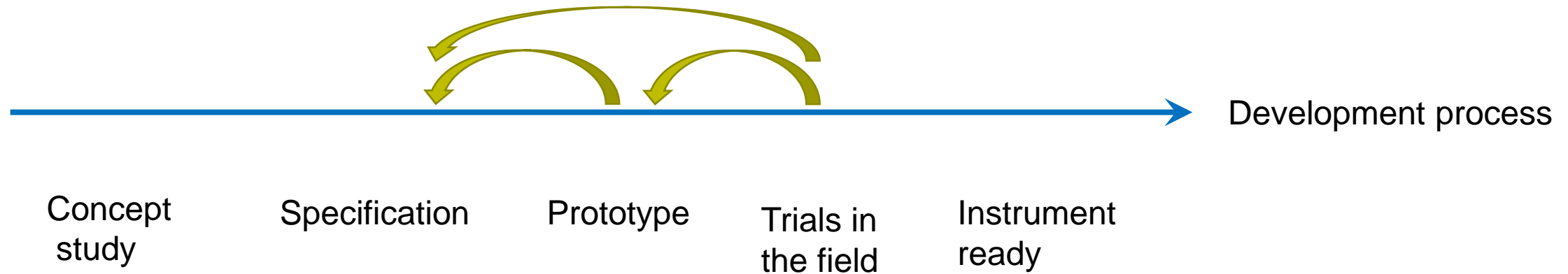
## The Notified Body

Metrology  
Software  
Electronics  
Vibration, shock, temperature  
EMC  
Electrical safety  
Internet of Things  
IT Security  
Digitalisation  
Certification  
etc.





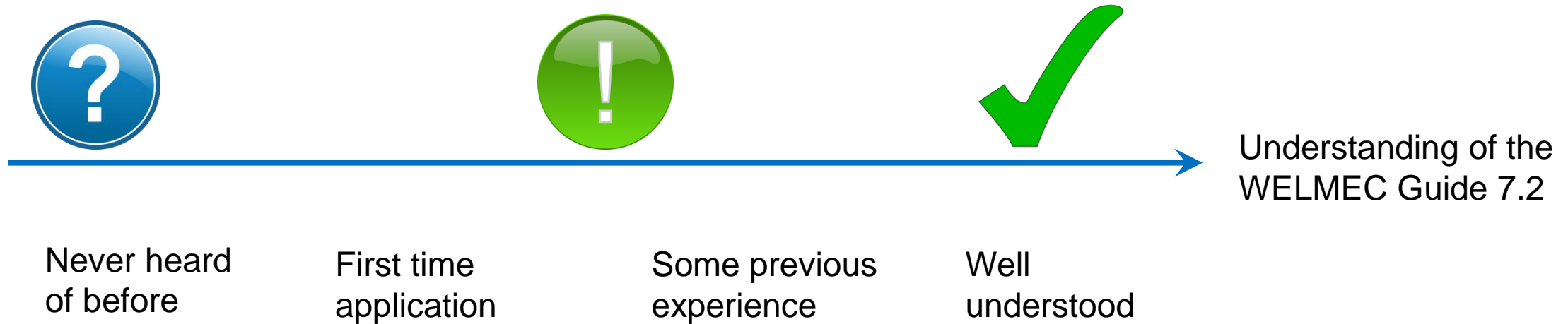
# When is the contact between industry and notified body established?



- Early contact - good possibilities to include all requirements of directives, standards and guides.
- Late contacts - can mean costly late modifications.



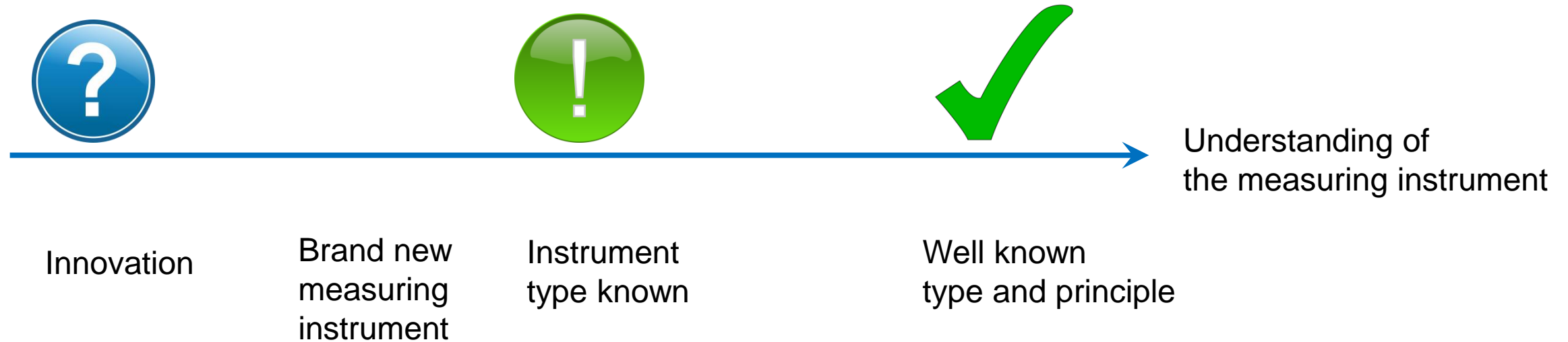
# Understanding the requirements



- Conformance with the essential requirements of the European Measuring Instruments Directive can be demonstrated by following the WELMEC Guide 7.2



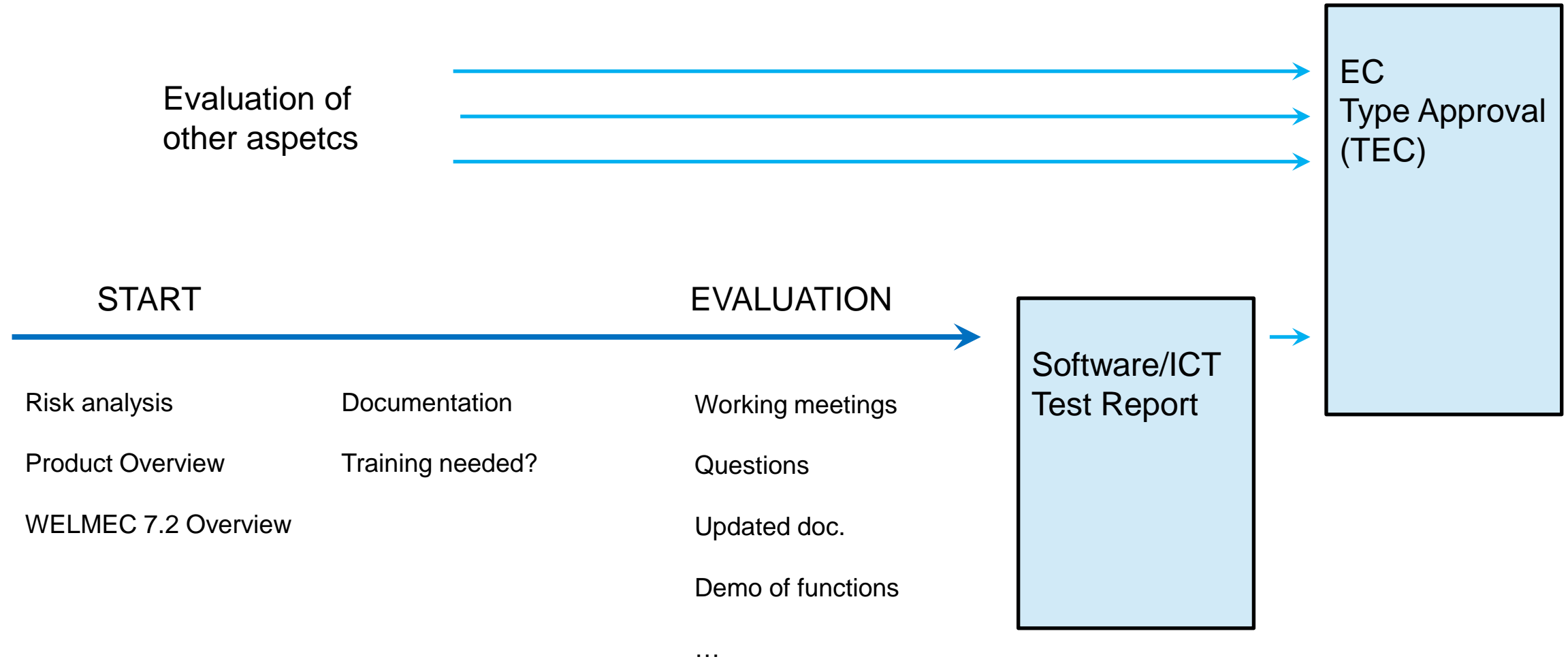
# Understanding the Measuring Instrument



- Handle risks introduced by new technology

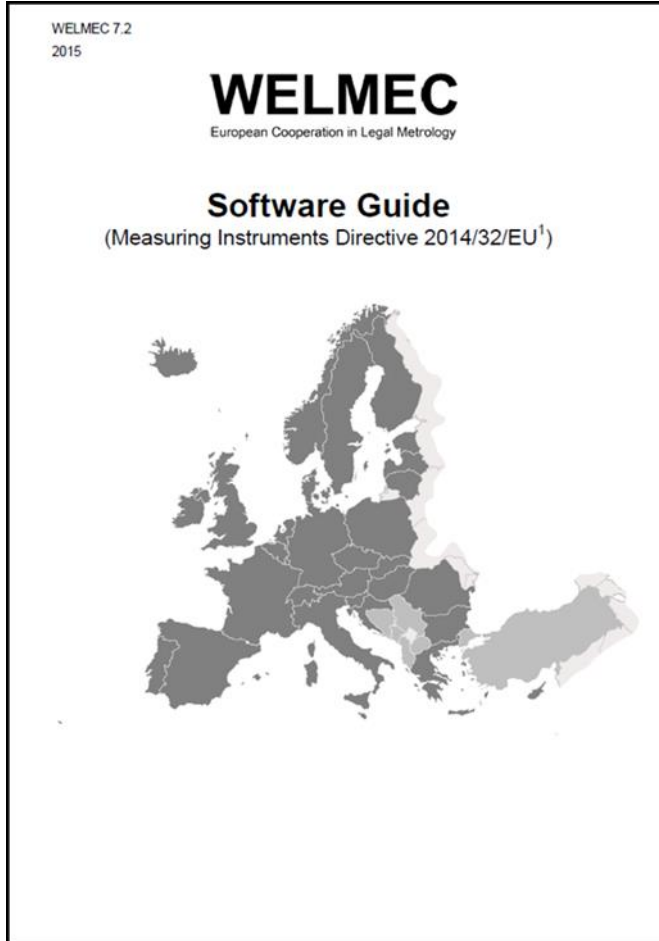


# Evaluation of aspects on Software and ICT

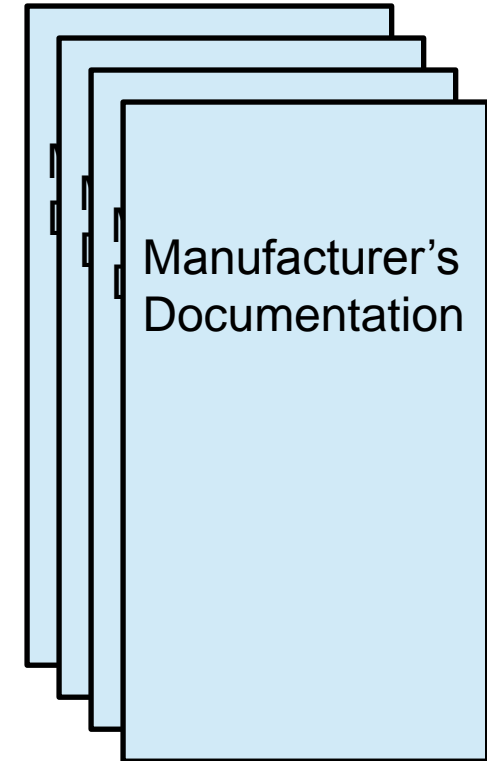




# Well-structured documentation



- P1, P2, P3, P4, P5, P6, P7  
or  
U1,U2,U3,U4,U5,U6,U7,U8,U9
- L1,L2,L3,L4,L5,L6,L7,L8
- T1,T2,T3,T4,T5, T6,T7,T8
- S1,S2,S3
- D1,D2,D3,D4
- I-requirements





# Combining priorities

## **The Manufacturer**

- Customer satisfaction
- Time-to-market
- Business

## **The Notified Body**

- Correctness
- Independance
- Support to industry

*Efforts required*

*Time schedule*

*Quality of the evaluation*

*Cost-efficient*

Common objective:  
Measuring instruments  
of the expected quality



# Conclusions

Good communication between industry and the notified body

- Contacts also for software and ICT competences.
- Understand the requirements for software and ICT.
- Understand the point of time in the development process.
- Understand the technology applied.
- Understand the process for evaluation and type approval.
- Documentation of the measuring instrument is important for the notified body.



**Parts Certificate**  
Certificate for a part of a measuring system for LOTW  
No. SC0119-16

**Wincor NAMOS compact POS**  
(Point of Sale system for fuel sales)

Issued to  
Wincor Nixdorf International GmbH  
Service Stations International, Haus am Mittelkanal, Wendenstraße 21, DE-20097 Hamburg, Germany

In respect of (part of instrument)  
Point of sale device (POS), a purely digital self-service device (SSD) intended for use with fuel dispensers for motor vehicles.

Characteristics/rated operating conditions  
The evaluated part of an interruptible measuring system for liquids other than water (LOTW) is a Point Of Sale (POS) terminal, a self service device for direct sales, attended pre-payment and post-payment including sale stacking and pre-set. It includes a customer display, a monitor for the seller and a ticket printer.

Accuracy class: 0,5 or higher

In accordance with

- WELMEC Guide 8.8, Issue 2 "General and Administrative Aspects of the Voluntary System of Modular Evaluation of Measuring Instruments under the MID",
- WELMEC Guide 10.7, Issue 1 "Guide on evaluating purely digital self-service devices (PDSSD) for sales to the public" and
- WELMEC Guide 7.2, Issue 5 "Software Guide".

This Part Certificate is the positive result of the applied modular approach under these WELMEC Guides, for a part of a measuring system for the continuous and dynamic measurement of quantities of liquids other than water.

This is not a MID Certificate (EC-type examination certificate according to 2004/22/EC), but the MID requirements have been applied. The complete measuring system shall be subject to a conformity assessment procedure as described in MID.

This Parts Certificate is free to use by manufacturers of complete measuring instruments.

Applicable essential requirements of MID 2004/22/EC

- MID, Annex I Essential requirements
- MID, Annex MI-005 Measuring systems for the continuous and dynamic measurement of quantities of liquids other than water (LOTW)

Certificate issued by an Accredited Certification Body  
SP Technical Research Institute of Sweden  
Box 857, SE-501 15 Borås, Sweden  
Phone: +46 10-516 50 00  
E-mail: info@sp.se / www.sp.se

Issue: 1 Date: 2016-04-08

Swedish accredited certification bodies are appointed by SWEDAC, the Swedish Board for Accreditation and Conformity Assessment, under the terms of the Swedish legislation. This certificate may not be reproduced other than in full, except with the prior written approval by SP. SP's Certification Rule SPKR 111 has been applied. The certificate, including appendices consists of 11 pages where this is page 1. #P00238





# THANK YOU!

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Research Institutes of Sweden

**Safety & Transport  
Electronics**

