

NEWS GPS BASED METHODS FOR AREA MEASUREMENT APPROVED BY EC



choose certainty,
add value



TÜV SÜD group– Facts and Figures



- ③ A technical service provider
- ③ 13,000-plus staff
- ③ 600-plus locations worldwide
- ③ 2007 sales: Euro 1,300 million
- ③ Headquarters: Munich, Danvers, Singapore
- ③ Over 140 years of business success

Directive 927/2007

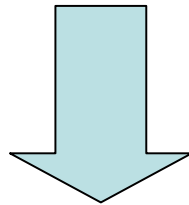
Article 30(1)

Agricultural parcel area shall be determined by any means proven to assure measurement of quality at least equivalent to that required by applicable technical standard as drawn up at Community level.

A measurement tolerance shall be defined by a buffer of maximum 1.5 m applied to the perimeter of the agricultural parcel. The maximum tolerance with regard to each agricultural parcel shall not in absolute terms, exceed 1,0 ha.

Consequences of the new directive

- Any methodology to measure agricultural parcels may be used provided
 - It fulfills required accuracy
 - It is defined at Community level
 - It is proven to fulfill requirements



GPS may be used

Achievements

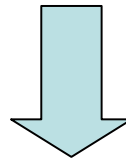
- JRC – Joint Research Centre of the EU commission has defined a validation scheme for GPS based measurement equipment
- JRC has set up a trial certification process
- NavCert is accredited by JRC
- NavCert provides certificates for GPS based area measurement equipment
- Certified equipment is available

Why Certification (1)

- only official verification provides reliable results
 - clear definition of accuracy
 - certified equipment provides results within defined limits
 - certification reduces liability
- reproducible measurements by all parties
- reliable results, usable in court
- regarded as proof of evidence by insurances

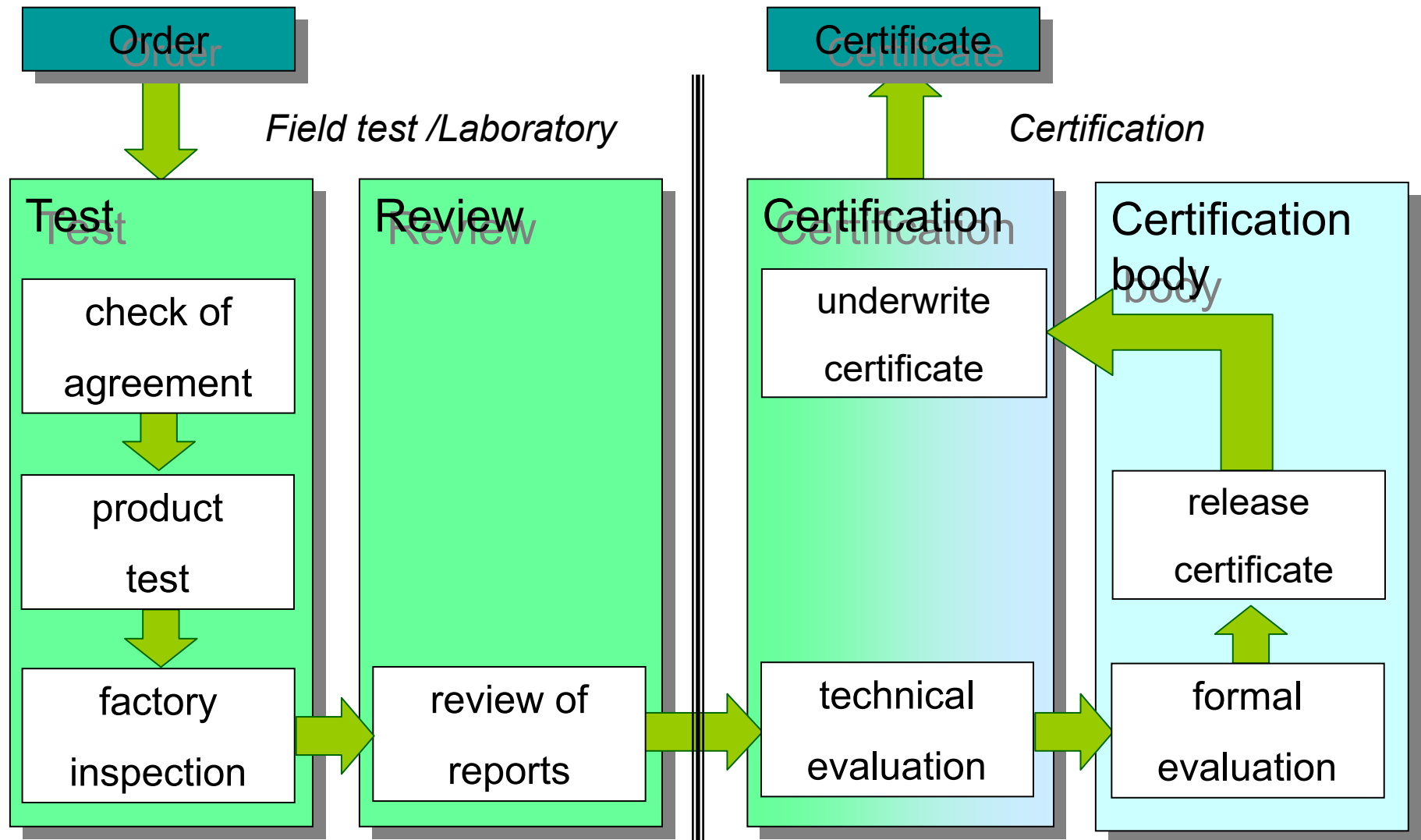
Why Certification (2)

- Test mark can be used in any communication to customer
 - Brochure, WEB, exhibitions, product, packaging
- Test mark increase reliability of product claims
- Test mark is a proof that product fulfills requirements of Commission Regulation No. 972/2007

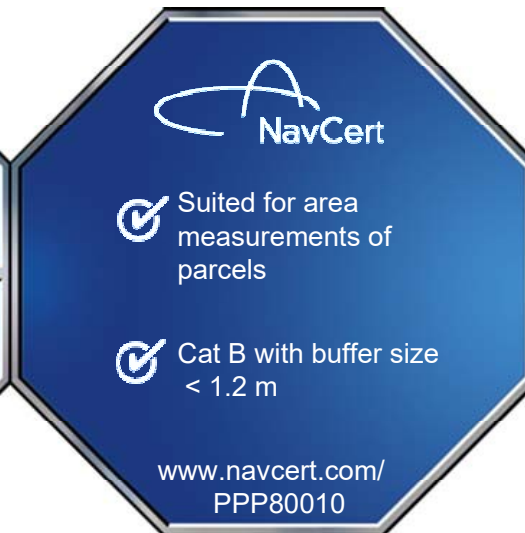
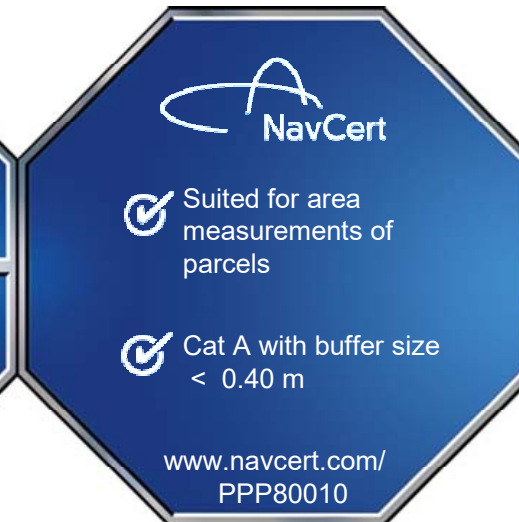


New market opportunities

Certification Process



Test Mark



Status

Reached:

- certified equipment is available

Additionally to testing and validation of the GNSS equipment
it must be stressed
that proper qualification of the operator
of the instrument is essential.

The operator should have received sufficient instructions
and certified training
and hold an official certificate of proficiency.

Result of a study by Prof. Oszczak
(University of Warmia and Mazury, PL)

Next Step

Goal:

- provide training and certification for operators :
 - farmer
 - surveyor (as service provider)
 - surveyor (expert in department of agriculture)
- establish local know-how in each member state of the EU

Strategy for implementation:

- step by step approach
- country wise introduction

Course Concept (step by step & country wise)



Training Class:

- max. 10 participants
- 2 days training

- 1st languages: German and English
- 1st venues: Munich and Frankfurt
- follow up Ia: any EU language, EU-wide

Course Content:

- theoretical education
- practical exercises

- regulations, requirements
- Fundamentals of satellite positioning
- use of certified equipment
- agricultural knowledge
- on-site training

Exam / Certification:

- multiple choice exam
- validity 3 years

- at the end of each training
- independent invigilator of TÜV SÜD
- centralized marking and evaluation
- independent examination system

Trainer Prerequisites / Add-Ons:

- evidence of trainer expertise
- additional 1 day training
- validity of certification 2 years

- train the trainer workshops
- more details, potential difficulties
- 1st language: German and English
- 1st venues: Munich and Frankfurt
- advanced examination

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Local Activities in each EU-country



Preparation:

- participate successfully at the Train-the-Trainer workshop
- translate training material and exam questions to local language and get approval

Training and Examination:

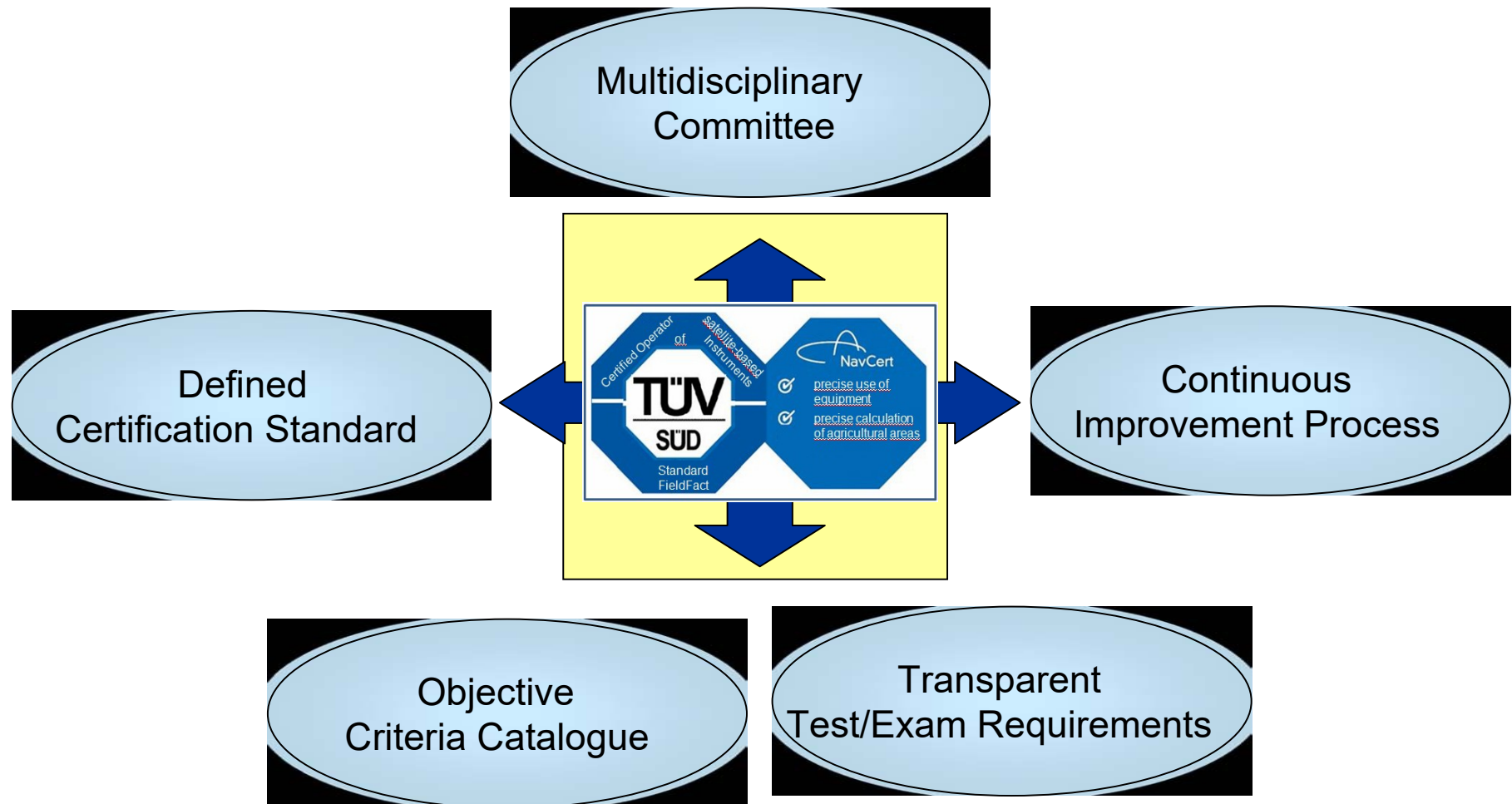
- organize and hold training at local venues as required
- organize examination and certification of the participants

Controlled and supported by TÜV SÜD

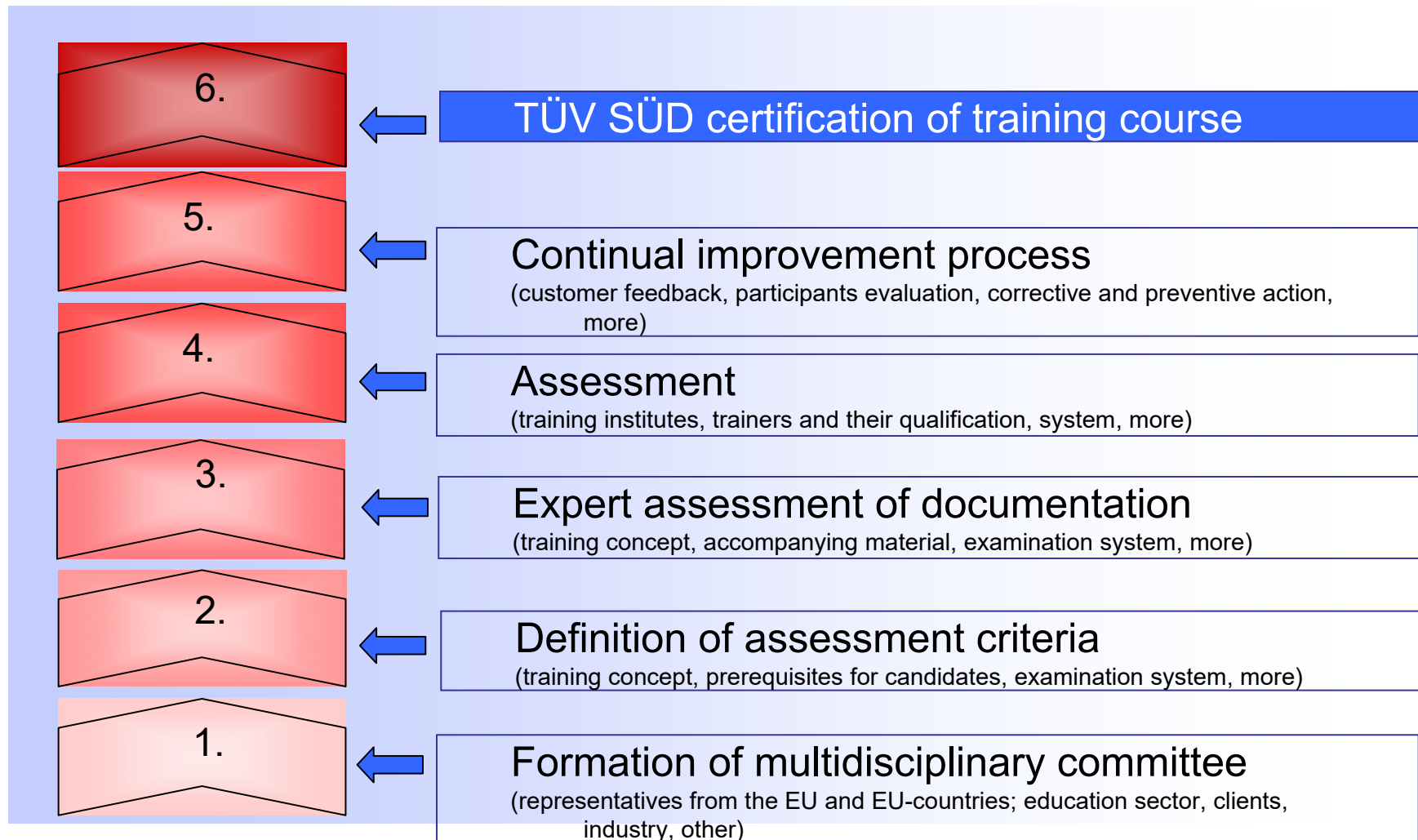
Independent Examination

- provide set of exam questions
- nominate the invigilator
- provide the certifications for the candidates

Principles of Certification of Persons



6 Modules of Training Course Certification



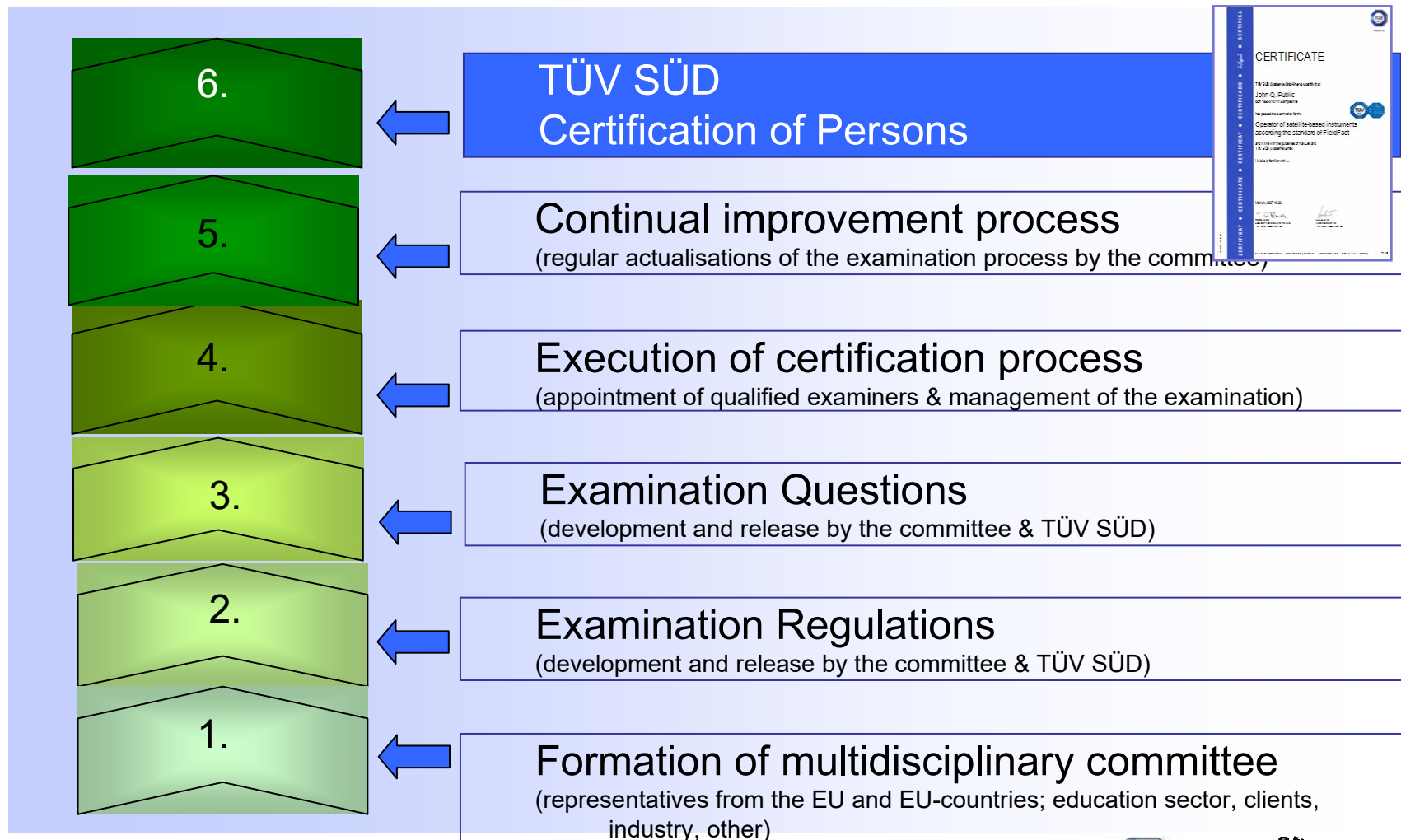
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6 Modules of Person Certification



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Committee

Members:

- Representative from the EC
- Representatives from universities
- Representatives from manufactureres
- Lead-trainers
- Representatives from EU member states
- TÜV SÜD Akademie - Certification Body for Persons
- NavCert

Duties:

- Advising the Certification Body
- Approve the certification system
- Act as advisory body of the stakeholders
- Propagate the certification activities in their specific areas

Schedule (step by step / country-wise)



1st Q 2009	2nd Q 2009	3rd Q 2009	4th Q 2009	...
Train the Trainer: 2-3 trainers per Federal State of Germany - Department of Agriculture i.e. 3-4 training classes	Pilot training: 2-3 training classes German language	Regular training Germany: training classes as required German language		
	Translation: ..of training material and exam questions to English	Train the Trainer 2 training classes per country France Poland Italy English language trainings center: Munich or Frankfurt	Regular training France: training classes as required local language	
			Regular training Poland: training classes as required local language	
			Regular training Italy: training classes as required local language	
			Further countries	

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Thank You for your Attention



NavCert GmbH

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