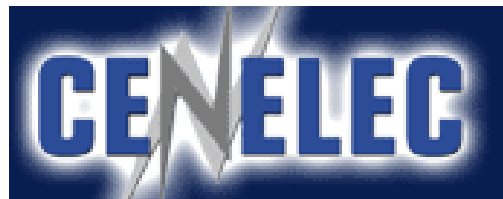




BT WG 185

eAccessibility



BT WG 101-5

Usability and safety of electrical products
with reference to people with special needs

Conformity assessment systems and schemes for accessibility requirements

CEN BT/WG 185 / CENELEC BT/WG 101-5 Project team
Brussels 4 June 2008

Content

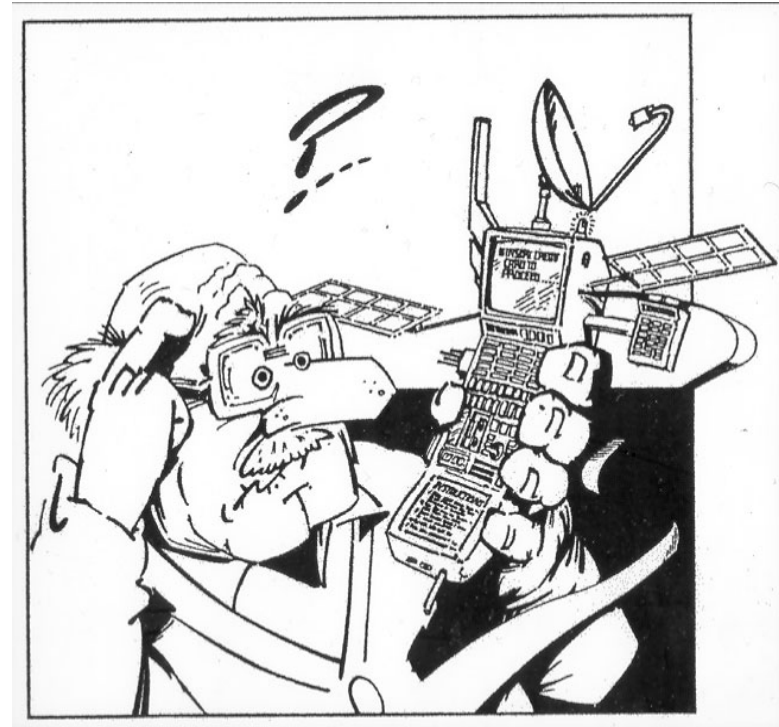
- Setting the scene
 - Theory
 - Overview of existing schemes
 - Procurement legislation
 - Procurement criteria
 - Scenarios
 - Supplier's accessibility capacity and ability
 - Conclusions
-
- The future – Phase 2



SETTING THE SCENE

The problem

- Which accessibility requirements should the procurer state in the call-for-tender?
- How should the procurer be assured that the offered product satisfies these requirements?



Conformity assessment

- ***What?*** It is a **demonstration** that **specified requirements** relating to a **product**, process, system or body **are fulfilled** (ISO/IEC 17000)
- ***Who?*** The supplier, the purchaser or a third party
- ***How?*** The assessment method is determined by the assessing party
- ***When?*** Primarily pre-market, but also at different phases of the acquisition process

The acquisition process

The procurer

Needs
analysis

Procurement

Implementation

Operation

The supplier

Development,
manufacturing

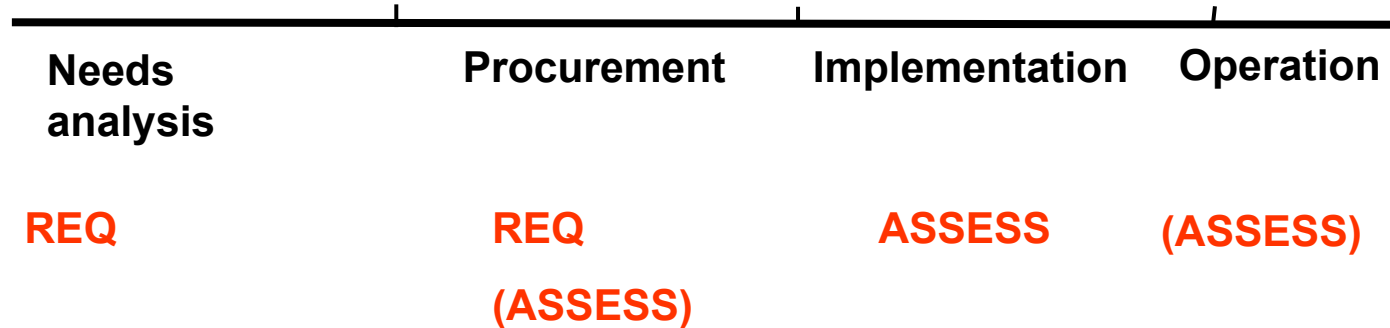
Writing a tender

Implementation

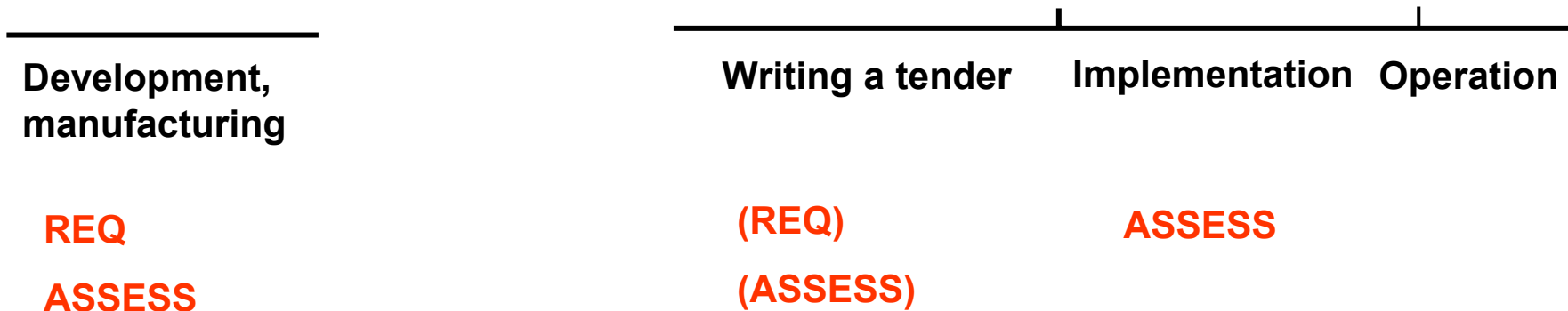
Operation

The acquisition process

The procurer



The supplier





THEORY

The ISO 17000 series standards

EN ISO/IEC 17000:2004
Vocabulary and general principles

EN ISO/IEC 17020:1998 General
criteria for the operation of
various types of bodies
performing **inspection**

ISO/IEC 17021:2006
Requirements for bodies
providing **audit and certification
of management systems**

EN ISO/IEC 17024:2003
General requirements for bodies
operating **certification of
persons**

EN ISO/IEC 17025:2005
General requirements for the
**competence of testing and
calibration laboratories**

EN ISO/IEC 17050-1:2004,
**Supplier's declaration of
conformity** - Part 1: General
requirements

EN ISO/IEC 17050-2:2004,
**Supplier's declaration of
conformity** - Part 2: Supporting
documentation

EN 45011:1998
General requirements for bodies
operating **product certification
systems**

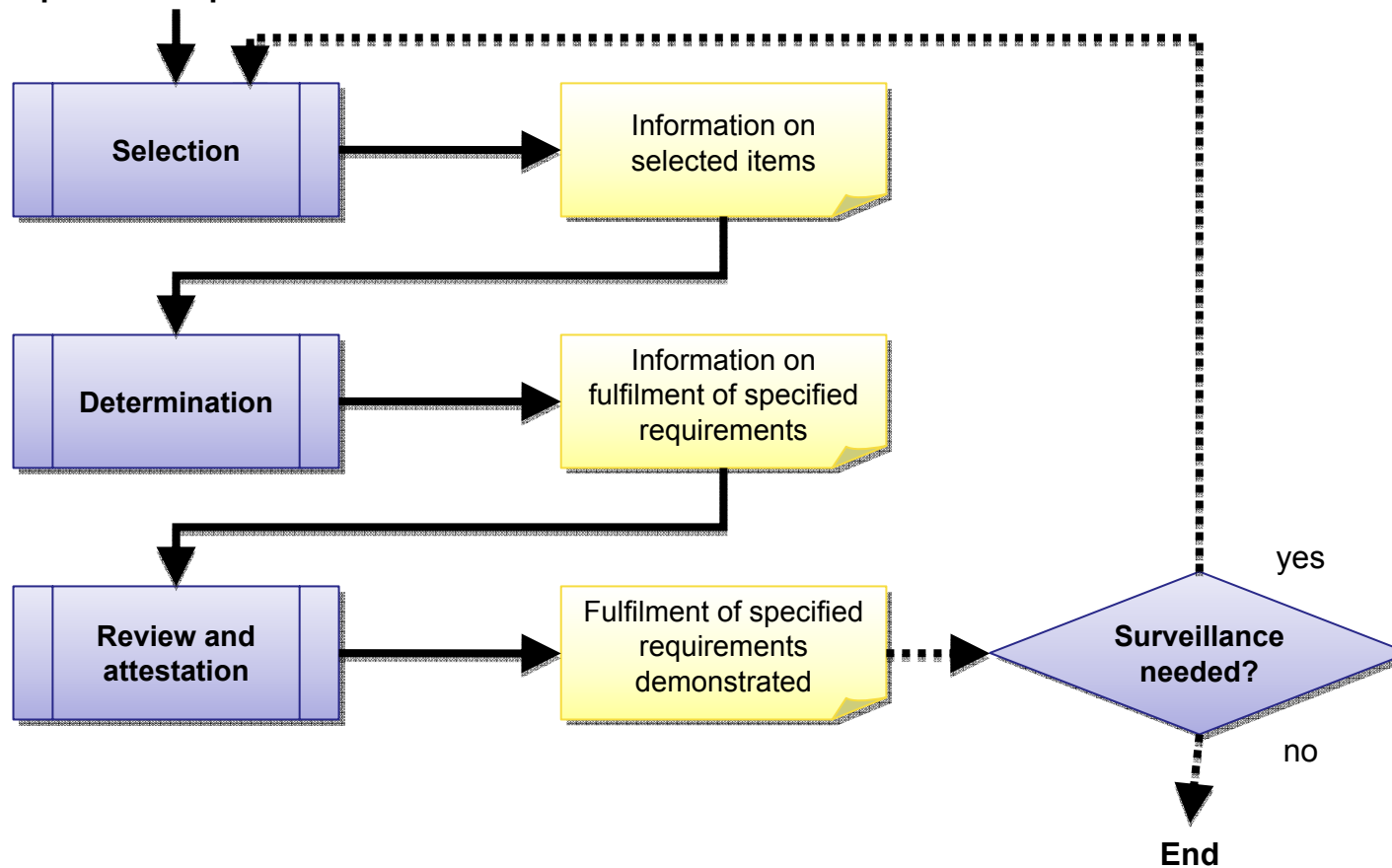
Definitions

(EN ISO 17000:2004)

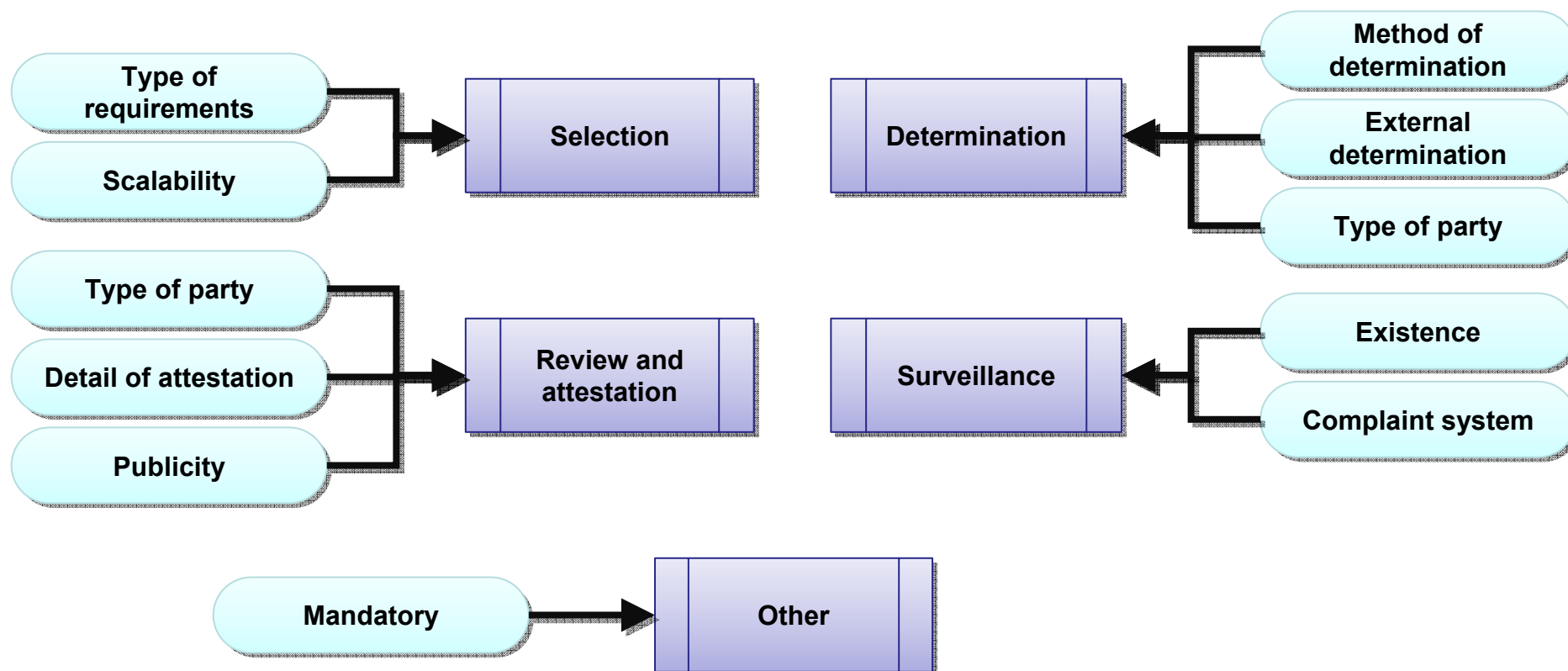
- **Conformity assessment:**
 - A demonstration that specified requirements relating to a product, process, system, person or body are fulfilled
- **Conformity assessment system:**
 - A set of rules, procedures and management for carrying out conformity assessment
- **Conformity assessment scheme:**
 - A conformity assessment system related to specified objects to which the same specified requirements, rules and procedures apply

The functional model

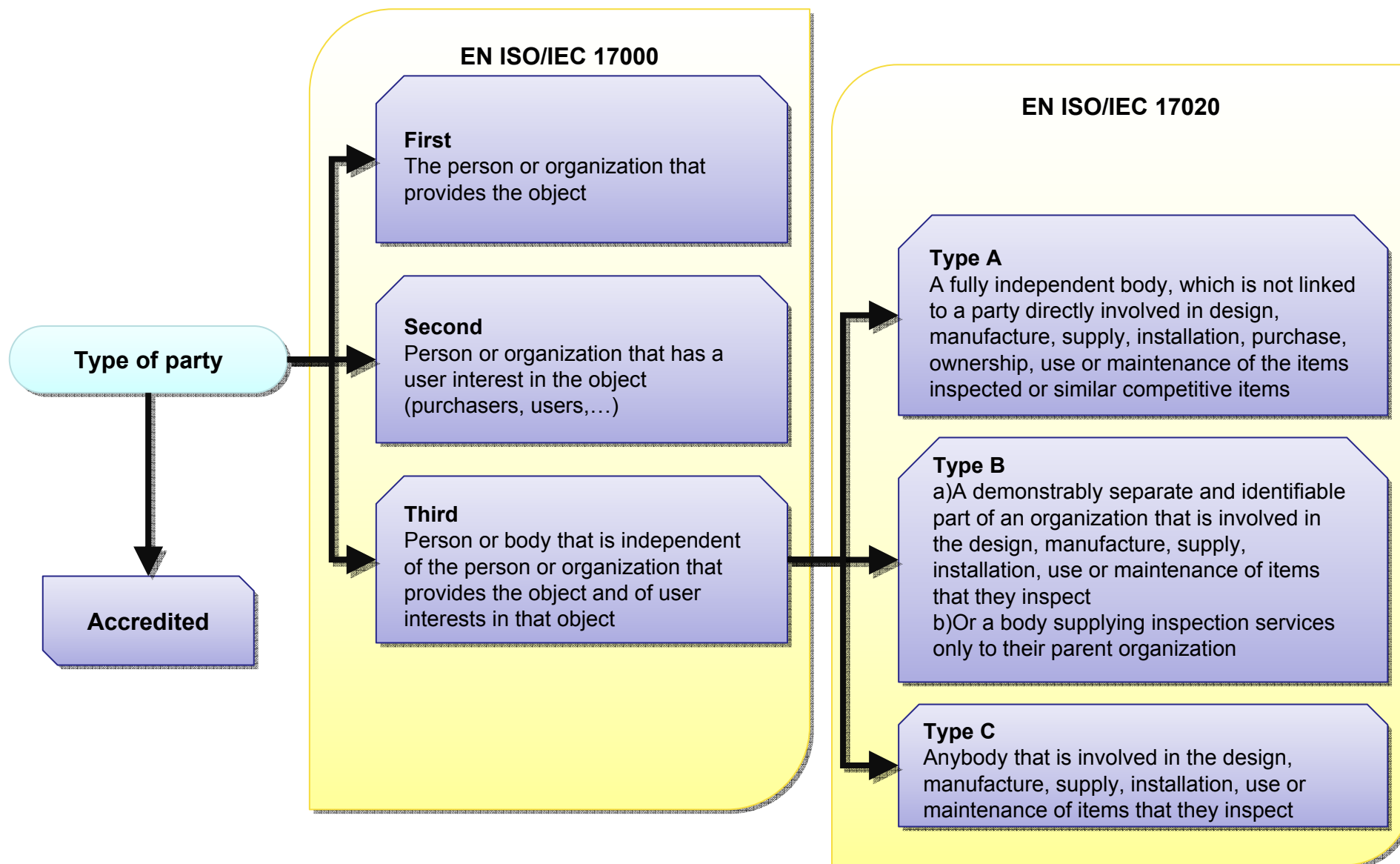
Need to demonstrate fulfilment
of specified requirements



The dimensions



Types of parties



Complementary approaches (1)

- **Market surveillance**

- Tool for the enforcement of New and Old Approach. It needs to function effectively in order to provide the following guarantees:
 - Uniform application of Community law
 - Equal protection for all citizens
 - Maintenance of a level playing field for enterprises
- Two main stages:
 - National surveillance authorities monitor that products placed on the market comply with the provisions of the applicable national legislation transposing the Community law.
 - When necessary, they then take action to establish conformity

Complementary approaches (2)

- **Competitors' surveillance**
 - A first company tests accessibility of its product by itself and discloses the test results to the public procurement agency
 - A second company monitors the first company's self declaration and challenges to them when it feels they are not correct
 - If challenged
 - The first company may be asked by the government agency to provide its test results or some other form of validation
 - If it fails to prove conformance, the first company is required to correct the situation or may be prevented from bidding or selling the product to the government.



OVERVIEW OF EXISTING SCHEMES

Overview of existing systems and schemes

Generic conformity assessment systems

- Generic first party assessment
- Supplier's declaration of conformity
- Generic second party assessment
- Generic third party assessment
- Inspection
- Product certification

- UWEM

Overview of existing systems and schemes

Accessibility schemes

- AENOR (websites; accredited third party)
- Drempelvrij (websites; accredited third party)
- PubliAccesso (websites, hw,sw; third for private subjects, first or second for public subjects)
- Segala (websites; third party)
- TCO Development (displays, printers, mobile phones; third party)
- VPAT (ICT hw and sw; first party)

Overview of existing systems and schemes

In other domains

- Quality labels (different)
- CE marking (products under harmonised European standards; first party)
- Cencer (many products; third party)
- Common Criteria (information security; third party)
- Keymark (many products; third party)



PROCUREMENT LEGISLATION

Procurement regulation

Principles of the Treaty of Rome

- Equal treatment
- Non-discrimination
- Mutual recognition
- Proportionality
- Transparency

Procurement regulation

Directive on public procurement 2004/18/EC and 2004/17/EC

- Whenever possible, technical specifications should take into account accessibility criteria for people with disabilities
- => accessibility justified, not a social issue
- Refer to standards or functions/performance
- When referring to standards, add "or equivalent"
- The tenderer may use appropriate means to prove compliance with requirements
- Appropriate = e.g. test report from recognised body
- => A specific conformity assessment scheme can not be specified as mandatory

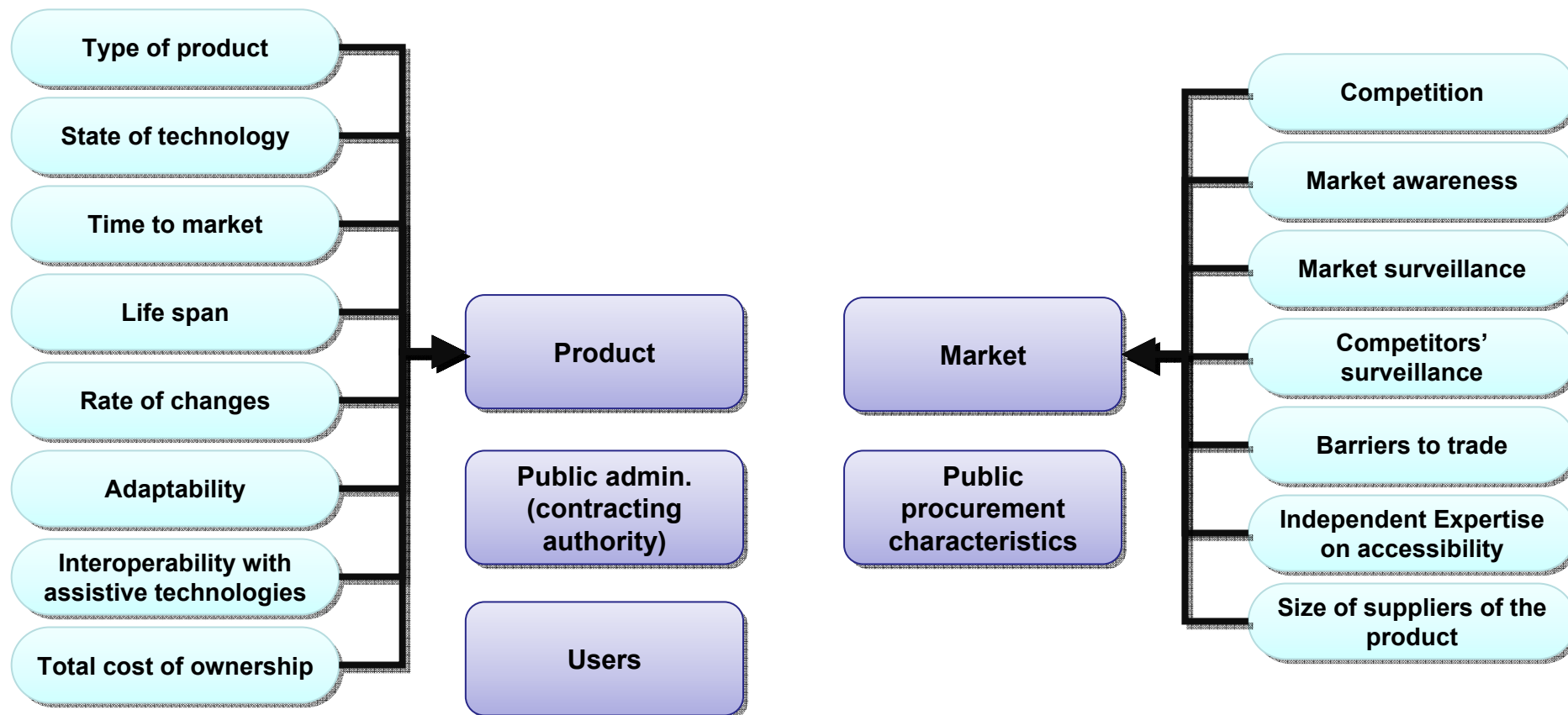
Electronic procurement

- By 2010, 100% of procurement shall be possible to carry out electronically
- And 50% shall be carried out electronically
- Conformity attestations must be able to be stored and submitted electronically
- Ongoing Action Plan for e-procurement, including how to handle declarations and certifications

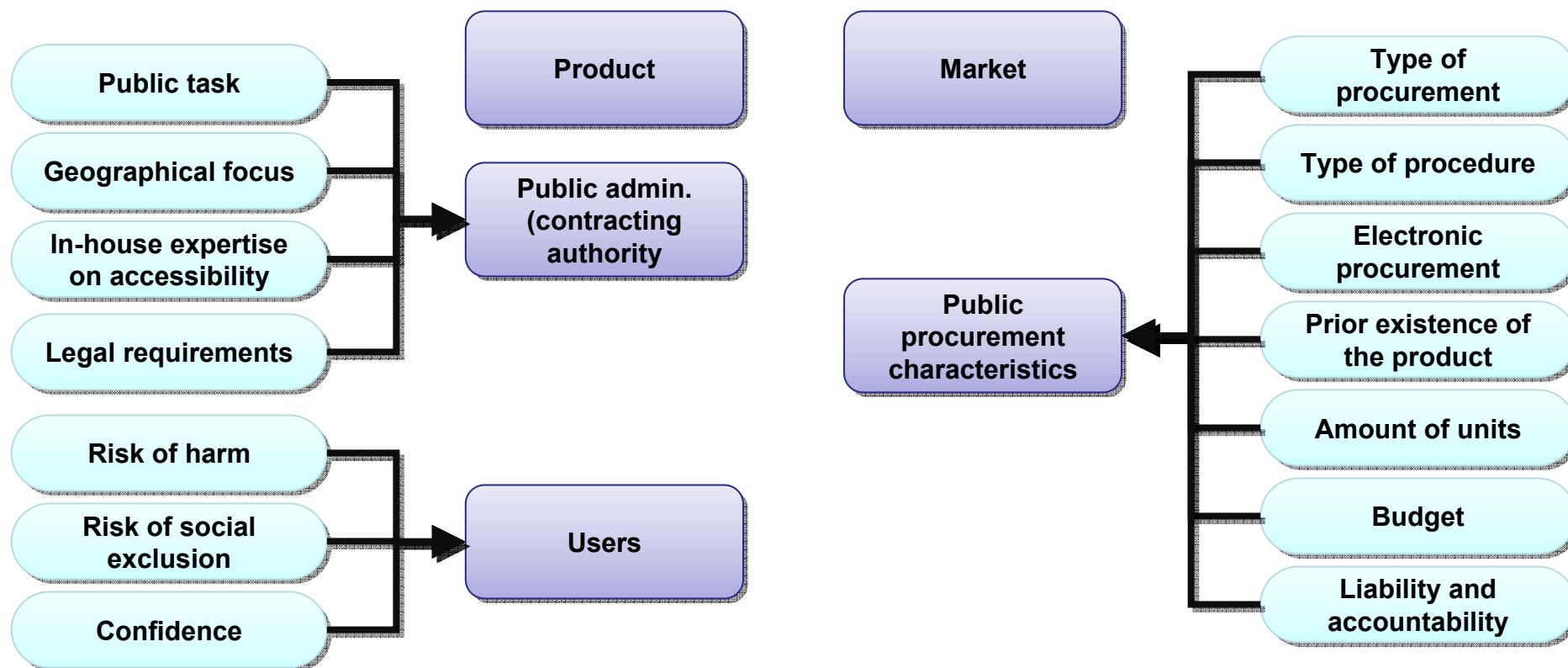


PROCUREMENT CRITERIA

Criteria related to public procurement



Criteria related to public procurement



SCENARIOS

Selected scenarios

1. Procurement of a set of units of desktop laser printers
2. Procurement of a frame contract for mobile communication, including a set of units of mobile phones
3. Procurement of a web site development for a ministry
4. Procurement of a road traffic information management system

Contents for each scenario

- Description
- Values assigned to the criteria of public procurement
- Recommended values for the dimensions of conformity assessment
- Recommended conformity assessment system

Desktop Laser Printers - Criteria

Product		
Type of product	Hardware (30213000)	This is the CPV code for printers
State of technology	Existing technology	The technology used in the system already exists
Time to market	Medium	Laser printers usually take more than 6 months to market
Life span	Long	Laser printers are used for a long time.
Rate of changes	None	Laser printers don't change during their life time
Adaptability	No	Laser printers cannot be adapted
Interoperability with AT	Only software	The laser printer driver software should be interoperable with AT
Total cost of ownership	2.000 € per unit	The cost includes the price of the printer and an estimate of the toner needed during the printer's lifetime. This cost may be bigger if the printer has intensive use.

Desktop Laser Printers - Criteria

Market		
Competition	Normal	There are more than 5 laser printer suppliers
Market awareness	Manufacturers: Low Suppliers: none	There is low level of awareness of accessibility issues by the manufacturers, mostly related to the 508 requirements in the United States. On the other hand, the local suppliers have no awareness on accessibility.
Market surveillance	None	There is no market surveillance for accessibility-related requirements.
Competitor's surveillance	No	Competitors don't perform surveillance on accessibility requirement.
Barriers to trade	Yes	Given that the contracting authority is using national requirements there is a risk of market fragmentation.
Independent expertise	Yes	There is independent expertise on accessibility issues of laser printers.
Size of suppliers	Mixed	Suppliers of laser printers can be of various sizes

Desktop Laser Printers - Criteria

Contracting authority		
Public task	Policy	It is the regional parliament
Geographical focus	Regional	See above
In-house expertise	No	There is no in-house expertise on accessibility
Legal requirements	No	There are no legal requirement for procuring accessible ICT, but the contracting authority has to provide support to its employees.
Users		
Risk of harm	Low	Risk of harm using a laser printer is very low
Risk of social exclusion	Low	There is almost no risk of social exclusion in the workplace due to limitations in the use of the printer.
Confidence	Low	There is lack of knowledge of accessibility of peripherals and thus the confidence level on accessibility attestations is low.

Desktop Laser Printers - Criteria

Public procurement		
Type of procurement	Direct	It is direct procurement
Type of procedure	Limited number of invited suppliers	It is a procurement below the threshold. In Spain, for this amount of money, only three competitors' offers are required.
Electronic procurement	No	It is not an electronic procurement
Prior existence of the product	Yes	The laser printers exist prior to the procurement
Amount of units	Medium	It is the procurement of 50 units
Budget	12.000 € total	It is an estimate given current prices of laser printers
Liability and accountability	No	...

Desktop Laser Printers - Dimensions

Selection		
Requirements	National standard (UNE 139801:2003)	<p>It is part of the technical specification of this procurement</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Type of product •State of technology •In-house expertise
Scalability	No	<p>Desktop laser printers are simple devices from the point of view of user interaction.</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Type of product

Desktop Laser Printers - Dimensions

Determination		
Method of determination	Mixed	<p>A combination of inspection and testing is required</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Type of product •Rate of changes •Adaptability •Interoperability with AT •Independent expertise •In-house expertise •Prior existence of the product
External	Yes	<p>There is low confidence on attestations and thus an external determination could raise this confidence. It has to be noted that the determination is a responsibility for the manufacturer instead of the supplier.</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Confidence •Independent expertise
Type of party	Third (C)	<p>See above:</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Confidence •Independent expertise

Desktop Laser Printers - Dimensions

Review and attestation		
Type of party	First (manufacturer)	<p>An attestation provided by the manufacturer is enough for the case.</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Type of product •State of technology •Time to market •Life span •Rate of changes •Independent expertise •Confidence •Prior existence of the product
Detail of attestation	Detailed (human)	<p>The attestations have to be detailed for comparisons by the procurers.</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Type of product •Independent expertise •In-house expertise •Confidence
Publicity	Yes	<p>The attestations of accessibility have to be public to the procurers.</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Type of product •Rate of changes •Independent expertise •Confidence

Desktop Laser Printers - Dimensions

Surveillance		
Existence	No	<p>Laser printers don't change and thus surveillance is not required</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Type of product •Time to market •Life span •Rate of changes •Adaptability •Interoperability with AT
Complaint system	No	<p>A complaint system is not needed in this case.</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Type of product •Competition •Market surveillance •Competitor's surveillance •Legal requirements •Risk of harm •Risk of social exclusion
Other		
Mandatory	No	<p>The conformity assessment system doesn't have to be mandatory.</p> <p>Criteria that influence this dimension:</p> <ul style="list-style-type: none"> •Legal requirements •Risk of harm •Risk of social exclusion

Desktop laser printers - Recommendation

- Supplier's declaration of conformity (based on ISO/IEC 17050)
- With the addition of third party determination by laboratories



SUPPLIER'S ACCESSIBILITY CAPACITY AND ABILITY

Accessibility capacity and ability

Procurers should

- Reward suppliers with a track record on accessibility
- Encourage suppliers without record to take accessibility on board
- Assess the accessibility capacity and ability of tenderers

While taking account of legal restrictions

Accessibility capacity and ability

Approaches for assessment

- A set of requirements
 - May provide a basis for a specification of qualifications
- Assessment against a maturity scale
 - Suggestions exist
- Requiring an accessibility management system
 - Models exist (environment, information security)
- Incorporation of accessibility in quality management system

Accessibility capacity and ability

Assessment raises a need to

- Produce a specification of required capacities of a supplier's organisation
- Produce a specification of required qualifications of accessibility experts
- Incorporate accessibility in mainstream development approaches and methods
- Enable certification of suppliers having an accessibility management system

Boring?





CONCLUSIONS

Conclusions

- Stakeholders' preferences differ strongly
- SDoC and certification schemes designed for use pre-market
- But accessibility is not always completed pre-market
 - Hardware and software often need customisation
 - Accessibility of a service assessable only when it is used
- Websites:
 - Building blocks for a complete conformity assessment scheme are in place
 - Challenges: Web2.0, semantic web, mobile devices

Conclusions

- Conformity assessment of bespoke applications is a contractual issue
- High degree of complexity and variability in ICT procurements
- => No single conformity assessment system (or scheme) will fit all situations
- Restrictions on public procurers as regards means of proof of conformity
- Procurer can not deprive from verification of tender's conformity to requirements
- Some scheme dimensions have preferred values



THE PROJECT TEAM

The Project team

- Loïc Martínez-Normand, Technical University of Madrid, Computer Science School, Madrid, Spain
- Clas Thorén, Swedish Administrative Development Agency, Stockholm, Sweden, project leader
- Enrique Varela, Fundación ONCE and freelance consultant, Madrid, Spain
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- Klaus-Peter Wegge, Siemens Accessibility Competence Center, Paderborn, Germany

An additional expert has joined the Project Team from March to May:

- Stephan Corvers, Corvers Procurement Services BV, 's Hertogenbosch, Netherlands



Thank you for listening!

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THE FUTURE – PHASE 2

The EN standard

- The EN standard should be written as to be subject to conformity assessment
- The bar for passing criteria for conformity to the standard should not be too low

Standard for assessment of conformity to accessibility

- Diversity of procurement situations make one single standard unfeasible
- Common Criteria, although complex, worth studying

Guidance and support

- Suppliers would benefit from guidance on
 - how to write declarations of conformity
 - selection, with respect to accessibility
 - assessment of accessibility

Guidance and support

- Procurers would benefit from guidance on
 - How to apply the EN standard(s)
 - How to determine suitable conformity assessment scheme(s), depending on the situation
 - How to formulate guidance on supplier's declaration of conformity
 - How to validate a supplier's declaration of conformity

Accessibility capacity and ability

- Little experience of setting requirements, and
- Strict regulations above the threshold
- => no requirements proposed in the report

- Phase 2 could include a specification of qualification of a supplier's organisation
- Including qualifications of individual accessibility experts
- Long term: standard on accessibility management system

Once again - thank you for listening!

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