

**CEN/TC 151**  
**Construction equipment and building**  
**material machines - Safety**



# **CEN/TC 151**

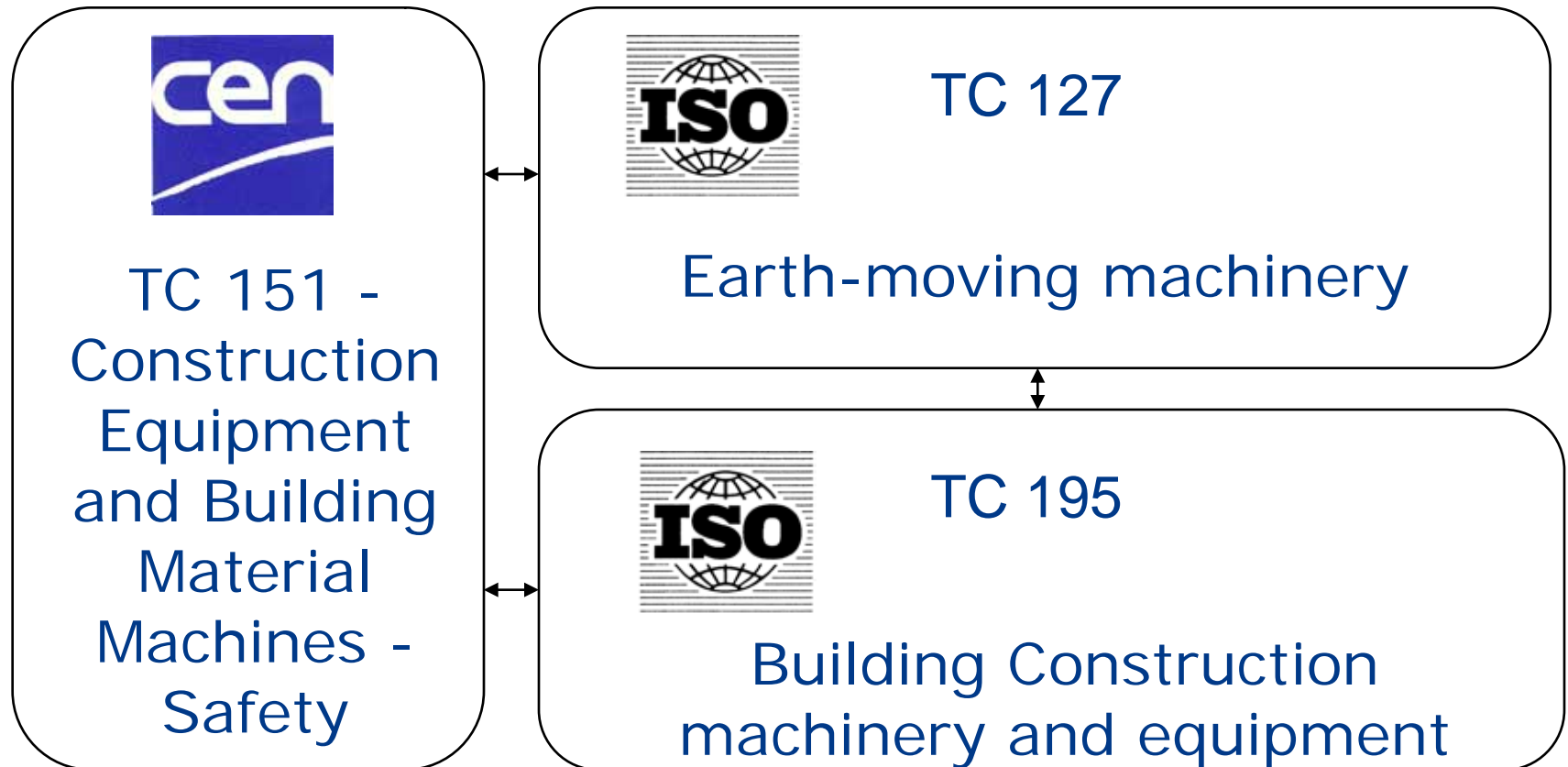
## **work programme - update**

**René Kampmeier, Secretary CEN/TC 151**

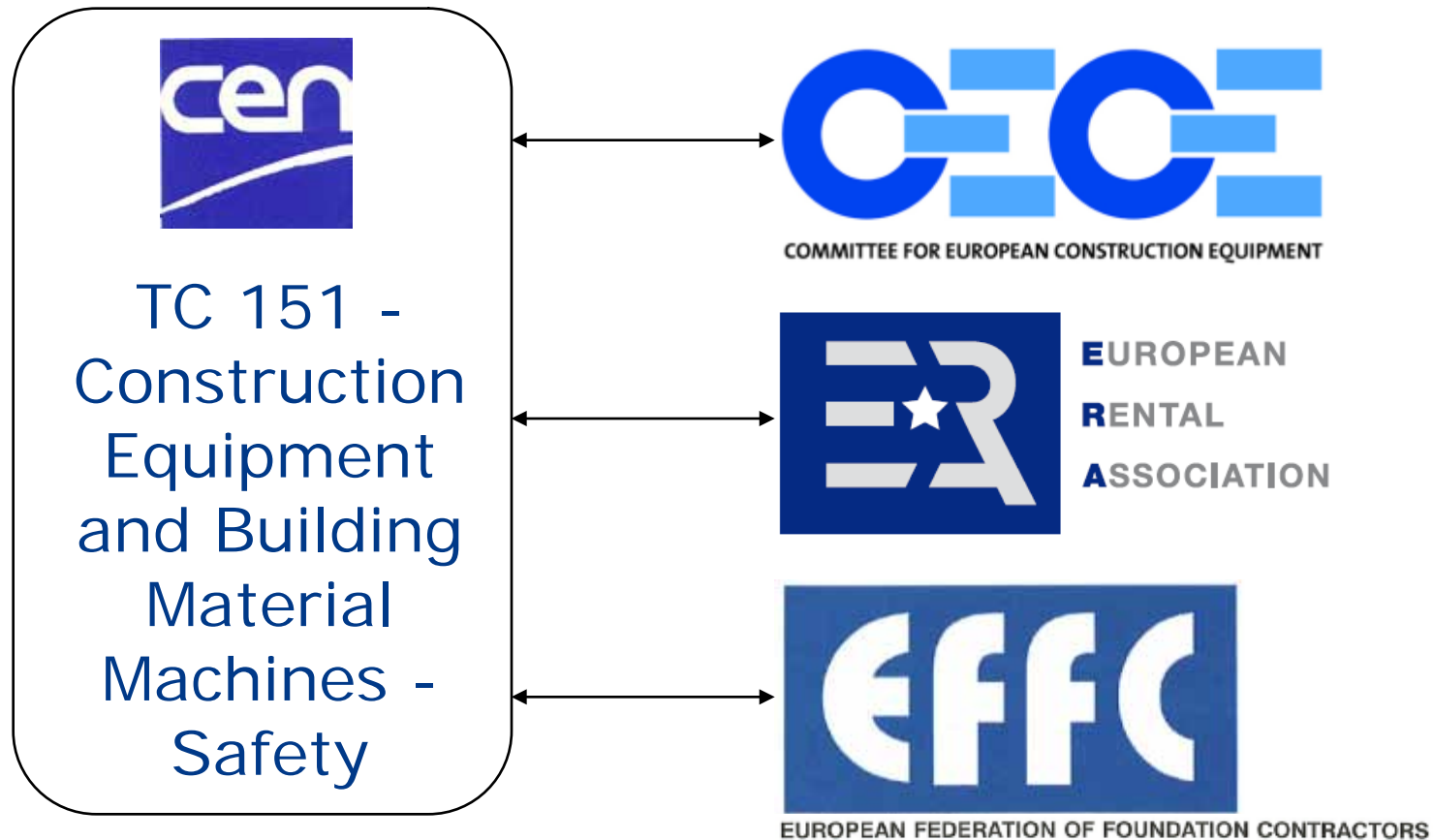
## Objectives

- ∅ Elaboration of
  - Machine safety standards (Type C) under 2006/42/EC
  - Machine specific standards relating to electromagnetic compatibility (EMC)
  
- ∅ Adoption of ISO Standards as European Standards under the Vienna Agreement which
  - describe requirements for basic, safety-relevant items
  - describe significant, safety-relevant test procedures
  - include basis terminology

## CEN/TC 151 Liasons with ISO committees



## CEN/TC 151 Liasons with other committees/associations





## CEN/TC 151 working groups

### **CEN/TC 151/WG 1 Earth-moving machinery - Safety**

CEN/TC 151/WG 2 Piling equipment - Safety

### **CEN/TC 151/WG 3 Drilling equipment - Safety**

CEN/TC 151/WG 4 Tunnelling machines - Safety

CEN/TC 151/WG 5 Road construction machines - Safety

CEN/TC 151/WG 6 Machines and equipment to process building materials - Safety

CEN/TC 151/WG 8 Concrete preparation and handling equipment - Safety

### **CEN/TC 151/WG 9 Machines and plants for the production of cement, lime, and gypsum, including crushing, screening, sizing and recycling - Safety**

CEN/TC 151/WG 10 Machines and plant for the production of stones, slabs, pipes, prefabricated elements of concrete and calcium-silicate - Safety

CEN/TC 151/WG 11 Machines and plants for mining and tooling of natural stone - Safety

CEN/TC 151/WG 12 Machines and plants for manufacture of fine, heavy clay and refractory ceramics - Safety

CEN/TC 151/WG 13 Machines and plants for the production, treatment and processing of flat, hollow and special glass - Safety

### **CEN/TC 151/WG 14 Demolition machines - Safety**

### **(CEN/TC 151/WG 15 Electromagnetic compatibility)**

CEN/TC 151/WG 16 Winter service machines and highway maintenance machines

## CEN/TC 151 update

### Review - Update to Machinery Directive 2006/42/EC

- ca. 600 standards total – CEN
- 71 standards – CEN/TC 151
- 70 CEN/TC 151 standards updated + published
- 95 % of CEN/TC 151 standards cited in the Official Journal of the EU (OJEU)





## CEN/TC 151/WG 1 Earth-moving machinery – Safety

- **28 standards published (thereof 11 EN ISO standards)**

- EN 474-1:2006+A1:2009
- EN 474-2:2006+A1:2008
- EN 474-3:2006+A1:2009
- EN 474-4:2006+A1:2009
- EN 474-5:2006+A1:2009
- EN 474-6:2006+A1:2009
- EN 474-7:2006+A1:2009
- EN 474-8:2006+A1:2009
- EN 474-9:2006+A1:2009
- EN 474-10:2006+A1:2009
- EN 474-11:2006+A1:2008
- EN 474-12:2006+A1:2008
- EN 12643:1997+A1:2008
- EN 13531:2001+A1:2008
- EN 15573:2008
- CEN/TS 15730:2008
- EN ISO 2860:2008
- EN ISO 2867:2008
- EN ISO 3164:2008
- EN ISO 3411:2007
- EN ISO 3449:2008
- EN ISO 3450:2008
- EN ISO 3457:2008
- EN ISO 5353:1998
- EN ISO 6682:2008
- EN ISO 6683:2008
- EN ISO 7096:2008
- EN ISO 7096:2008/AC:2009



## CEN/TC 151/WG 1 Earth-moving machinery – Safety

### Active work items

#### 1. EN 474-1:2006/prA3

- „new“ Annex H on demolition machinery
- based on CEN/TS 13778  
*“Mobile demolition machinery – Safety requirements”*
- first draft available
- Submission to CEN enquiry 2010-10-08
- Publication expected 2013-01-10





## CEN/TC 151/WG 1 Earth-moving machinery – Safety

### Active work items

#### 2. EN 474-4/prA2 and EN 474-5/prA2

- Pending formal objection
- Standards so far not cited in the OJEU
- New requirement:  
„...shall be equipped boom(s) *and arm(s)* cylinder(s) with: „a boom lowering control device on the raising).”
- Submission to UAP (unique acceptance procedure) latest by 2011-04-06, publication latest by 2011-12-26



## CEN/TC 151/WG 1 Earth-moving machinery – Safety

### Active work items under the Vienna agreement (ISO lead)

3. **prEN ISO 3450** *Earth-moving machinery – Wheeled or high-speed rubber-tracked machines – Performance requirements and test procedures for brake systems*
  - revision in progress
  - to address hydrostatic braking, electronic braking,
  - to provide suitable criteria for underground mining applications
4. **prEN ISO 2867** *Earth-moving machinery – Access systems*
  - revision in progress
  - update of performance criteria for access, maintenance and moveable platforms, machine servicing and repairs
  - update of requirements for access systems from the ground



## CEN/TC 151/WG 1 Earth-moving machinery – Safety

### Future work items

#### 1. EN 474-1/prA2

- formal objection against EN 474-1 in 2007
- Annex B (requirements for attachment brackets) of EN 474-1 does not address the hazard present when the operator fails to insert the safety pin
- work item to be reactivated at the next plenary level
- Ad hoc group requested to provide proposal
- Publication can be expected beginning 2012



## CEN/TC 151/WG 1 Earth-moving machinery – Safety

### Future work items

#### 2. EN 474-5/prA3

- Reference to ISO 12117-2 *“Roll-over protective structures (ROPS) for excavators of over 6 t“*
- Machinery Directive 2006/42/EC: *Where,..... , there is a risk of rolling or tipping over, the machinery must be fitted with an appropriate protective structure,...*

#### 3. EN 12643 *Earth-moving machinery – Rubber-tyred machines – Steering requirements*

- to be withdrawn
- In future reference to (EN)ISO 5010



## CEN/TC 151/WG 1 Earth-moving machinery – Safety

### Future work items

#### 4. EN 474 Parts 1-12

- Revision of EN 474 parts 1-12 required
- Decision at plenary meeting for creation of preliminary new work items
- Establishment of a revision group to prepare a detailed work plan, timeframe, milestones, etc.
- Inclusion of rollers as a new part 13
- Coordination with ISO/TC 127 regarding (parallel) revision of ISO 20474 necessary



## CEN/TC 151/WG 3 Drilling and Foundation Equipment – Safety

- published standards
  - EN 996:1995+A3:2009 *Piling equipment – Safety requirements*
  - EN 791:1995+A1:2009 *Drill rigs – Safety*

### Active work items

#### 1. **Merger of EN 791 + EN 996**

- adoption of preliminary new work item in 2007
- activation of work item 2009
- most critical and extensive discussion: guarding of drill rigs and stability
- 13 active ad hoc groups to deal with specific safety aspects (e.g. guarding, noise/vibration, access, terminology, etc.)
- Submission to CEN enquiry 2010-10-08
- publication latest by 2012-10-10

## CEN/TC 151/WG 3 Drilling and Foundation Equipment – Safety

New structure:

EN 791:2009  
*„Drill rigs“*

EN 996:2009  
*„Piling equipment“*

EN xxx *„Drilling and foundation equipment – Safety“*:

Part 1: *Common requirements*

**Part 2: *Mobile drill rigs for civil and geotechnical engineering, quarrying and mining***

Part 3: *Horizontal directional drilling equipment (HDD)*

Part 4: *Foundation equipment*

Part 5: *Diaphragm walling equipment*

Part 6: *Jetting, grouting and injection equipment*

Part 7: *Interchangeable auxiliary equipment*



## **CEN/TC 151/WG 9 Machines and plants for the production of cement, lime, and gypsum, including crushing, screening, sizing and recycling - Safety**

New activities planned for re-establishing work to:

- *prEN 1009-1 Machines for mechanical processing of minerals and similar solid materials - Safety - Part 1: General*
- *prEN 1009-2 Machines for mechanical processing of minerals and similar solid materials - Safety - Part 2: Feeding machinery*
- *prEN 1009-3 Machines for mechanical processing of minerals and similar solid materials - Safety - Part 3: Crushing and milling machinery*
- *prEN 1009-4 Machines for mechanical processing of minerals and similar solid materials - Safety - Part 4: Sizing and sorting machinery*





## CEN/TC 151/WG 15 Electromagnetic compatibility

### Active work items

#### 1. **Revision of EN 13309:2000** *Construction machinery – Electromagnetic compatibility of machines with internal power supply*

- update to actual EMC directive 2004/108/EC
- Final draft FprEN 13309:2010 approved
- Definitive text available (dav) 28 July 2010
- Date of withdrawal of national standards (dow) 31 January 2011



## CEN/TC 151/WG 15 Electromagnetic compatibility

### Active work items

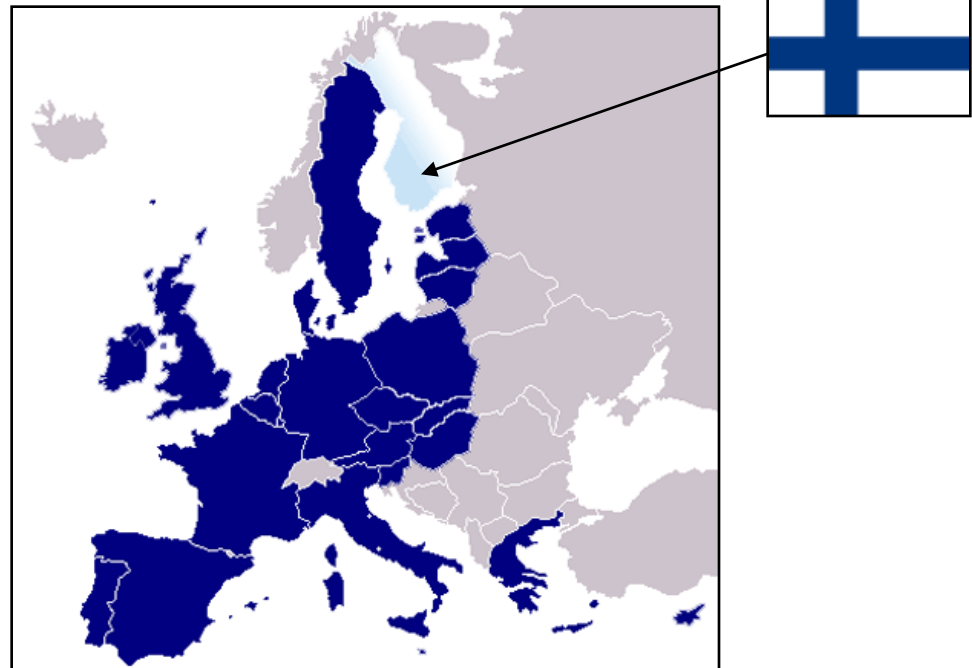
#### 2. Joint working group with ISO/TC 127, ISO/TC 195

- New work item EN ISO standard on EMC based on revised EN 13309
- EN 13309 and ISO 13766 to be replaced by this „new“ EN ISO standard
- „New“ EN ISO standard for „Construction machinery“, 2 parts
  - Part 1: *“General EMC requirements under typical EMC environmental conditions”*
  - Part 2: *“Additional EMC requirements for Functional Safety”  
(exceptional EMC environmental conditions)*

## CEN/TC 151 update

### CEN/TC 151 plenary meeting

- 26/27 October 2010
- Helsinki, Finland





TC 195  
Building construction  
Machinery and equipment



## ISO/TC 195 update

- 22 published standards
- 16 P-members, 15 O-members
- nomenclature, classification, ratings, technical requirements, test methods
- and safety requirements

TC 195/SC 1 Machinery and equipment for concrete work

TC 195/WG 1 Classification

TC 195/WG 5 Road construction and maintenance equipment –  
Terminology and commercial specifications

TC 195/WG 6 Hand-held machinery and equipment

TC 195/WG 7 Pedestrian controlled compaction equipment

**TC 195/WG 8 Aggregate processing**



## ISO/TC 195 WG 8 update

### Published standards

- ISO 21873-1:2008 *Building construction machinery and equipment - Mobile crushers – Part 1: Terminology and commercial specifications*
- ISO 21873-2:2009 *Building construction machinery and equipment - Mobile crushers – Part 2: Safety requirements*

### Active work items

- ISO/WD 21873-3 *Building construction machinery and equipment – Mobile crushers – Part 3: Performance tests*



Thank you for your attention

**René Kampmeier**  
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