EPERC - aisbl
European Pressure Equipment Research Council

www.eperc-aisbl.eu

EPERC

2 days General Introduction - Conclusions

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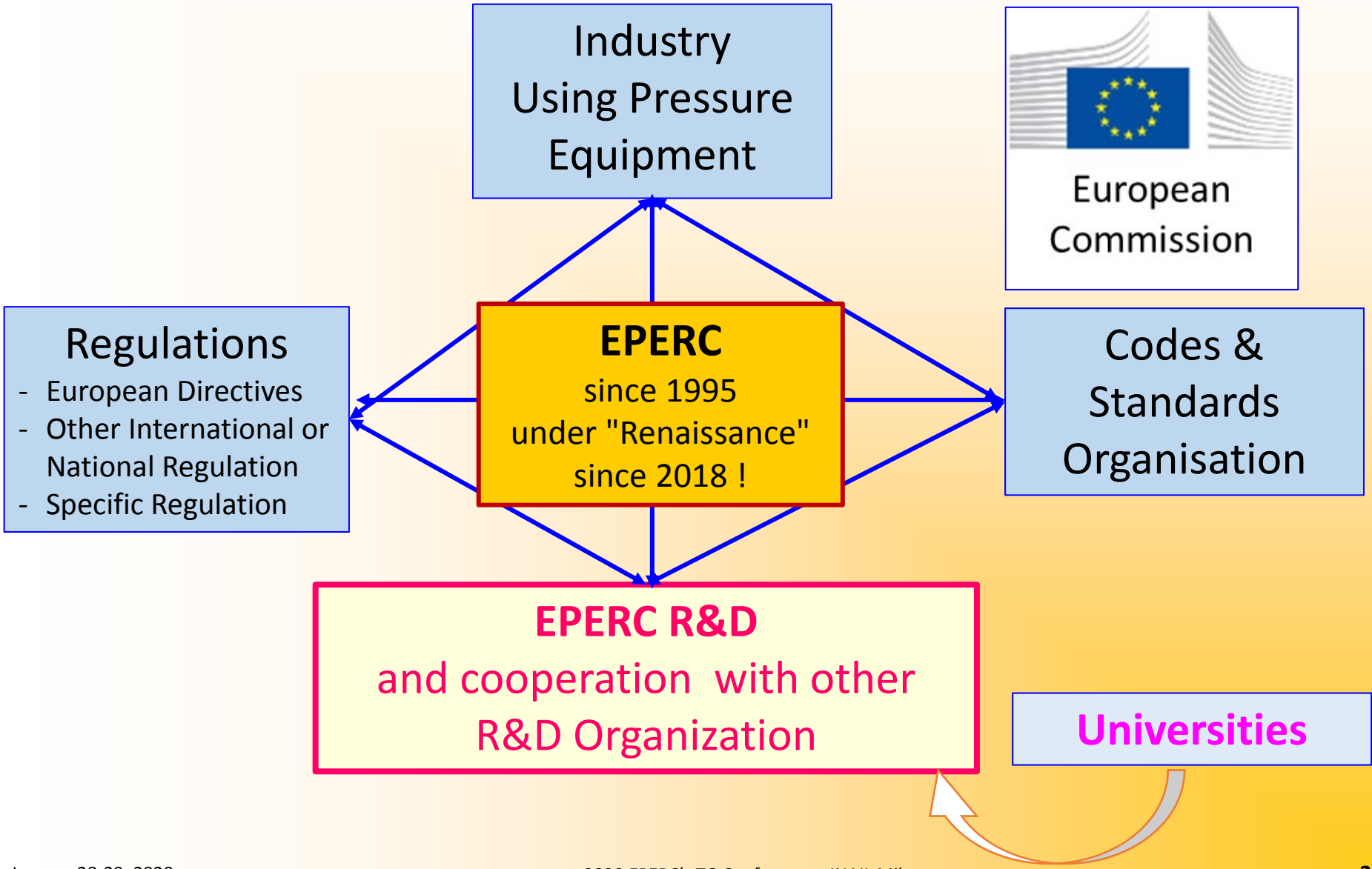
The major Actors In Pressure Equipment Technology



Introduction

Co-ordinate, Develop and Promote R&D for

the common technical interests and strategies of European Industry with regard to **Pressure Equipment Industry**

Safety, Innovation and Competitiveness

through:

a) **R**esearch in relation with Industry needs, European institutions and the international context,
b) **E**xchange with industry experience in PE design, materials selection, fabrication, examination, use, in-service inspection, monitoring, safe life assessment, dismantlement …
c) **I**mprove the Codes and Standards by providing industry research results, data and competitive rules, in close connection with **CEN Pressure Equipment Technical Committees** and through comparison with other International Codes and Standards

Strategic plan

- **Define the TG Scope** (with Chairman and members)
- **Overview of International Codes** & Standards on the TG Scope
- **Gaps and Needs** Identification
- **Synthesis of to-day situation**, C&S, status and validation, no needs attached to innovation (new material, new operating condition, new environment…)
- **Develop R&D programs**: Industries, CEN TC, EPERC TG, Universities, R&D Labs and European Community
- **Benchmarking**
- **Code Case**
- **Communication** in Conference, Workshops, Seminars…

Technical Program Objectives

- **2 key Standards:**
  - EN 13445 Part 1 to 5: Unfired Pressure Equipment
  - EN 13480 Part 1 to 5: Metallic industrial piping
    - Conformity presumption with European PE Directive
- **Many other PE Standards** will be concerned (> 30 CEN PE TC)
- **New topics not cover to-day** by EN standards
- **International Competitiveness**
  - **In** Europe
  - **Outside** Europe by comparison with International Practices, to assure Competitiveness of our CEN-Standards
- **Other** aspects that **needs** R&D
  - **Enlarge the Scope** of existing standards
  - **Check all justification** of existing or new rules availability
  - Assure Regularly **State Of the Art** level of each PE CEN Standards
  - Connect **Design-Fabrication** with **Operating Conditions**, **Life Evaluation** and **Surveillance** in Operation

Status of TGs

- **4 running and ready to work…**
  - **TG1**: Fatigue
  - **TG2**: Alternative to Pressure Test
  - **TG3**: Bolted Flange and Sealing
  - **TG4**: Nonlinear Design Rules
- **4 Ready to start soon**
  - **TG5***: Additive Manufacturing
  - **TG6***: Creep Design Rules
  - ***TG7****: Fitness for Service / RBI*
  - **TG12***: PE re-certification
- TG2 and TG12 are strongly connected to "National Regulation" and/or PED

* D*iscussed shortly with interesting experts at Milano Conference*

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Possible future TG proposals

- ✓ **TG8**: Nuclear-Non nuclear bridge
- ✓ **TG9**: EN13445 Background
- ✓ **TG10**: Piping design rules
- ✓ **TG11**: Hydrogen PE and High pressure PE
- ✓ **TG13**: Cryogenic PE
- ✓ **TG14**: New Materials/Non-Steel Materials
- ✓ **TG15**: New NDE Techniques
- ✓ **TG16**: New Welding procedure
- ✓ **TG17**: HDPE Piping requirements
- ✓ **TG18**: In series produced pressure equipment
- ✓ ….

✓ **Or other Topics started ON VOLUNTARY BASIS!**

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EPERC TGs and Preliminary CHAIRMAN

	2020-01-28 Edition EPERC Preliminary Chairman
❑ TG1*: Fatigue	Guy BAYLAC
❑ TG2*: Alternative to Pressure Test	Crescenzo DI-FRATTA
❑ TG3*: Bolted Flange and Sealing	Hubert LEJEUNE
❑ TG4*: Nonlinear Design Rules	Claude FAIDY
❑ TG5*: Additive Manufacturing	TBD
❑ TG6*: Creep Design Rules	Andrea TONTI / Guy BAYLAC
❑ TG7*: Fitness for Service / RBI	Claude FAIDY
❑ TG12*: PE re-certification	Andrea TONTI

*: Refer to dedicated synthesis of Milan Conference for each TG

The CEN proposed tools

Developing CEN deliverables:
https://boss.cen.eu/developingdeliverables/Pages/default.aspx

European Standards (EN)
Technical Specifications (TS)
Technical Reports (TR)
CEN Workshop Agreement (CWA)
CEN Guides
Supporting processes

EPERC TGs CHAIRMEN RESPONSABILITY

- Select TG members and Prepare with them the written **detailed Scope Definition**
- Develop with members a "**Business Plan**"
  - List of planned actions
  - List of potential reports
  - R&D programs: Reports and Experimental Programs
  - Benchmarking
  - Communication plan
- **Propose 2 days seminars** topic by topic, in touch with CEN TC potentially concerned
- **Relationship EPERC / EC and CEN-TC** to be organized by BOD
- **Develop Proposals to EC/CEN** for budget support to be prepared with the different tools proposed by them, and Industry support:

https://www.cencenelec.eu/research/tools/Pages/default.aspx

EPERC TGs Conference Conclusions

- The 4 existing TGs (1 to 4) have been largely discussed with potential members to adapt the scope and business plan of these TGs, define their financial way of work and launch the major actions with a synergy between 1 and 4 (Fatigue)
- 4 new TGs (5, 6, 7, 12) have been discussed and are ready to start with a request to develop a synergy between TG 4-6-7 (Creep-Fatigue and Allowable crack/ local thinning …):
  - TG5 Additive Manufacturing
  - TG6 Creep Design Rules
  - TG7 Fitness for service
  - TG12 PE Recertification
- All these actions have to use e-mails and websites, if necessary supplemented by SKYPE meetings (or similar web-conference tools)

EPERC TGs Conference Conclusions

- BOD has to be in touch with key experts in Pressure Technology and Codes & Standards, in Europe and at the International level
- BOD has to clarify EPERC CE/CEN relationship
- BOD has to update the EPERC website following the Milan Conference
- BOD has to maintain an important effort to catch new interesting expert members from all the EC countries
- BOD thanks all the participants for their contribution in Milan !!!

If you have any Questions, Remarks or Suggestions
be in touch with EPERC BOD members:
Andrea TONTI, Fernando LIDONNICI, Crescenzo DI FRATTA
Guy BAYLAC Bart TEERLINCK Claude FAIDY
Or use EPERC website www.eperc-aisbl.eu : "How to contact us"