



# Quality construction, quality certification

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## Topics

- **Main challenges of Construction**
- **Quality control of the design**
- **Quality control of the materials&products**
- **Quality control of installation**
- **Certification of products**
- **ÉMI qualified installer scheme**
- **Conclusion**





## Main challenges of the society

- aging population, accessibility
- economical crisis
- high unemployment rate
  - young generation
  - 50+ generation
- multicultural environment
- answer for the climatic change



## Main challenges of the construction

- meeting the client's (changing) need
- sustainability
- modernisation of the construction sector and the society
- changing paradigms
- local resources
- „closing the gap”





## Main hazards of the quality in construction

- Severe working environment
- Every workplace is unique
- Small reserve in several construction
- Fragmented processes, subcontractors
- Long implementation processes
- Public procurement is too rigid
- Low educated workmanship



## Quality in construction

- Client oriented design
- Quality materials & products
- 100 % installation





## Client oriented design

- Flexibility for the changing need
- Indoor Air quality
- Sustainability (BREEM, LEED, etc.)
- LCA analysis, recycling („cradle to cradle”)
- Energy Efficiency & high share of renewable energy
- Meeting special challenges (earthquake, flood, etc.)
- Intelligent building concept



## Quality materials & products

- Products certification
  - Harmonised European Standard
  - European Technical Approval
- Attestation conformity
- Life Cost Analysis
- National regulation (fire protection)
- Original muster for later testing





## 100% installation

- **Surveillance plan**
- **Health & safety**
- **Non destructive testing (thermo-camera, Blower Door)**
- **Laboratory control testing**
- **Digital documentation**



## EMI Qualified installer scheme

- **Financial and legal position**
- **Manpower, education**
- **Experiences in construction**
- **References**
- **Valid for three years**





# Conclusions

- meeting the challenges
- using adequate design tools
- certification
- surveillance plan
- non destructive tests
- digital documentation
- qualified installer scheme



**Thank you for your attention!**

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