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#WeMake2Build

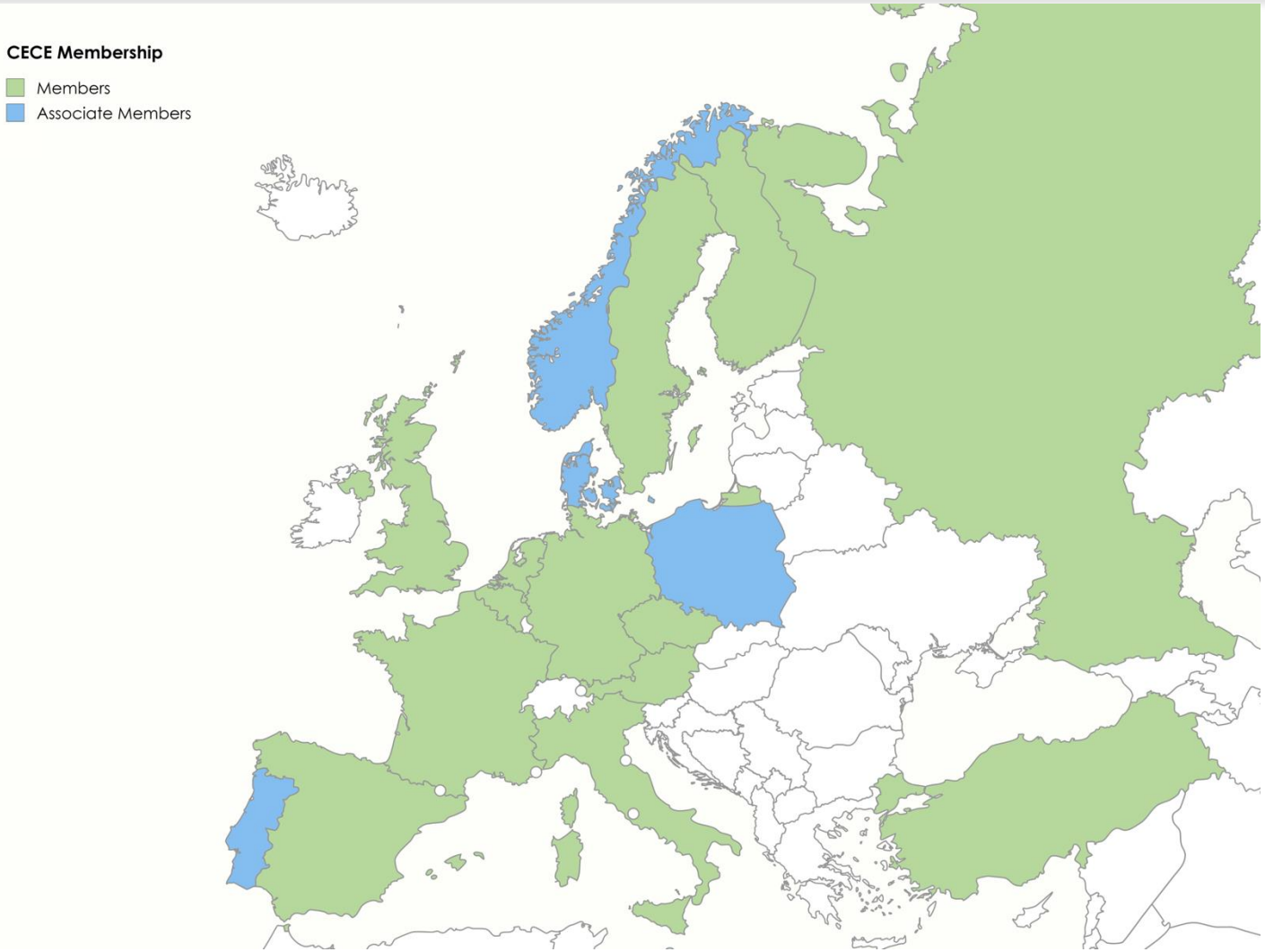
OUR MOTTO

COMMITTEE FOR EUROPEAN
CONSTRUCTION EQUIPMENT

Constructing the
Europe of Tomorrow

#WeMake2Build

CECE IN A NUTSHELL



300 000
OVERALL EMPLOYMENT

1 200
COMPANIES

59 BN €
REVENUES

15 BN €
EXTRA EU EXPORT

Robotics – automation – autonomy

Productivity

Safety

Sustainability

State of play

European – and global – OEMs invest heavily already

Interesting complementarity with mining machinery

ISO 17757 - safety standard for autonomous and semi-autonomous earth-moving and mining machine systems.

End-goal is autonomous machinery - is it doable?
BUT automation already taking place

Opportunities

Automation/robotics
starts with full mechanization

Just a few use cases

- Semi or fully **autonomous operations** - pilots — *Quarries*
  - Closed perimeters
- Remote controlled **robots** – accessible — *Demolition*
  - Line of sight visibility – replacing manual work
- Safety features – **collision avoidance/warning** — *All sites*
  - on-board cameras and sensoring
- **Operation assistance** – available — *Earth-moving*
  - Simplifying repetitive tasks or precision digging
- **3D-printed concrete** – pilots — *Building construction*
  - Semi-automated laying BUT needs supervision at all times

Bauma innovation award winner

MAXX – by RWTH Aachen

Plug & produce solution for (semi-) automated, scaffold-free assembly in building refurbishment

Watch this video

RWTH Aachen runs the Center for Construction Robotics

4,000m² reference jobsite for testing & commercialization

Target-X EU-funded project on 5G/6G connectivity for large-scale automation in industrial settings, including construction

Watch this video

Challenges

- Very diverse operations on jobsites
- Construction sites not standard & difficult to map
- Workers & machine interactions unpredictable
- New skill sets needed
- Lack of standardization
- Lack of understanding by users
- Investment mind-set needed

Possible support measures

- No need for legislation
- Continued push for mechanization of construction
- Upskilling & reskilling is necessary
- R&D funding support – BUT EU funding too complex

Potential example to look at – Japan

Top-down approach by MLIT with concrete goals
30% job-savings & 1.5 times productivity increase by 2040
Supportive response by industry

EU Industrial Dialogue on Robotics

- A very interesting first-time for the value-chain
- Should be continued in the future
- Could be geared towards a proper Strategy

Thank you!

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