Nuclear Innovation Conference

Haarlem, 11 June 2026

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Politecnico di Torino

KTH VETENSKAP OCH KONST

Fuel supply
Fuel handling

Spent fuel casks

Small Modular Reactors (consultancy and industrial applications)

Fabio Nouchy, SMR product development manager

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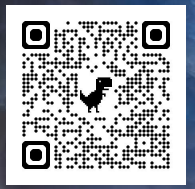
Reframing Supply Chain Opportunities: Beyond Local Content

Fabio Nouchy, SMR product development manager

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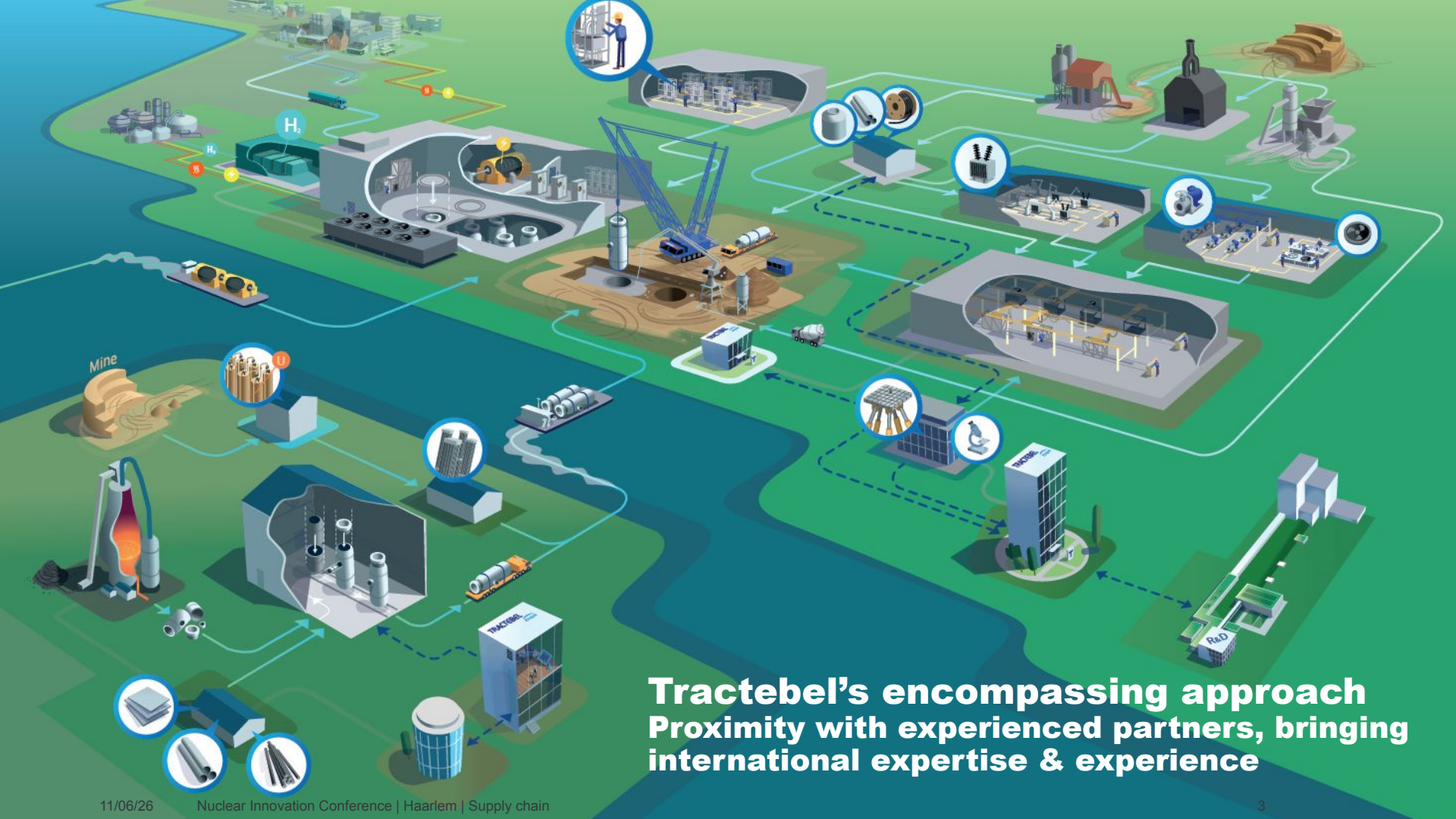
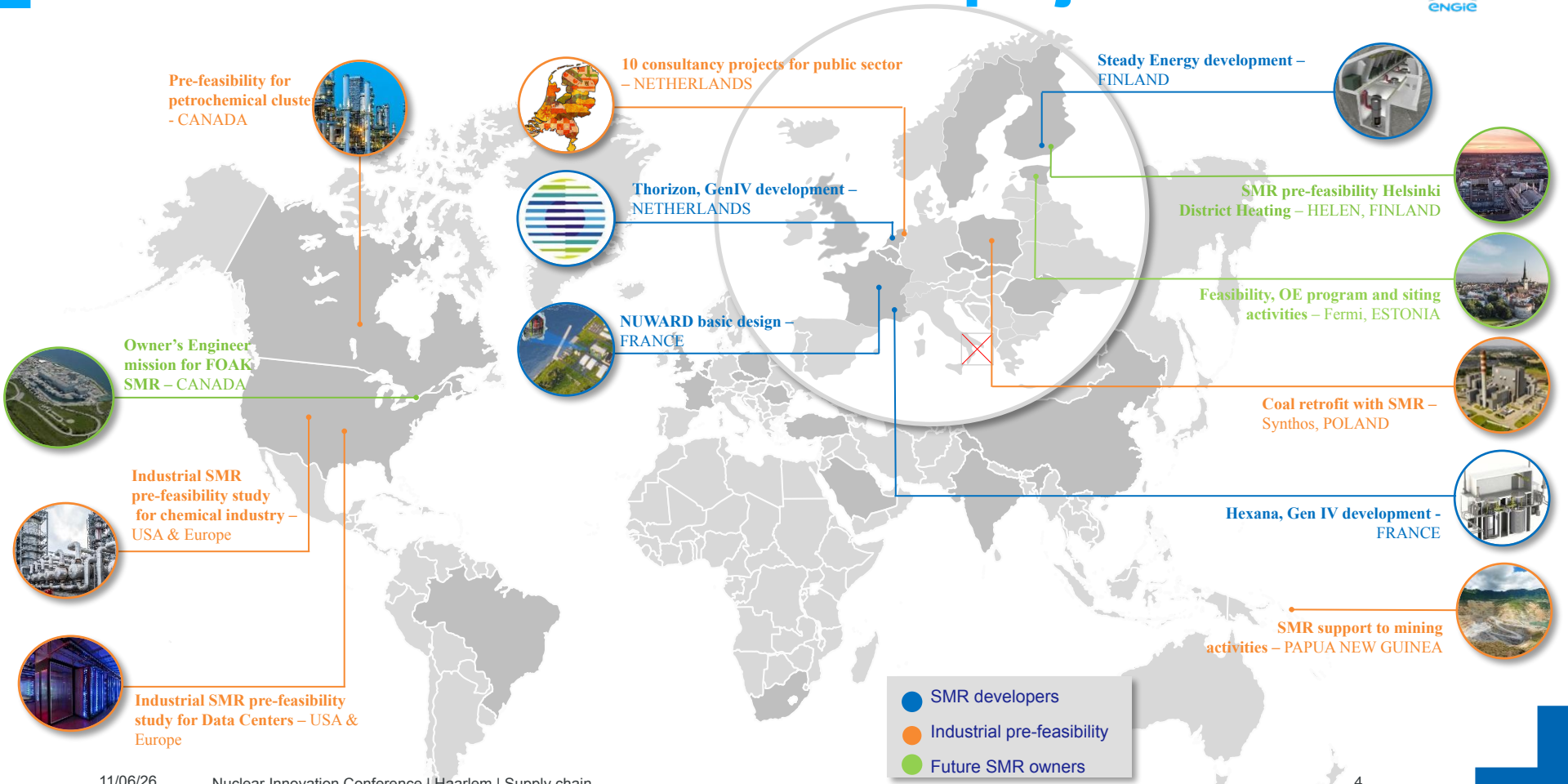


Tractebel's encompassing approach

Proximity with experienced partners, bringing international expertise & experience

Tractebel involvement in SMR projects



Key Takeaways

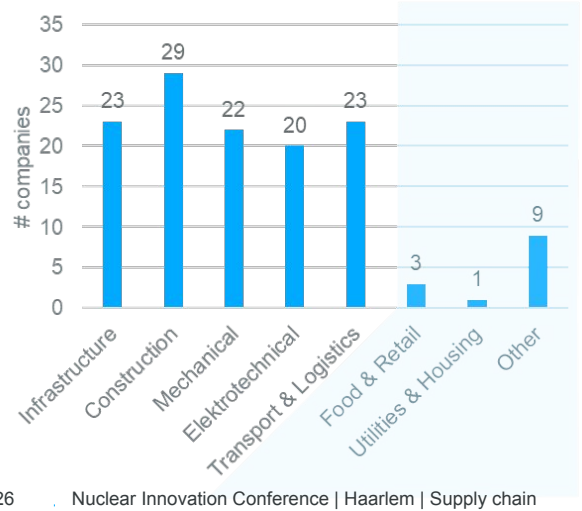
- **The potential for local content is currently existing**

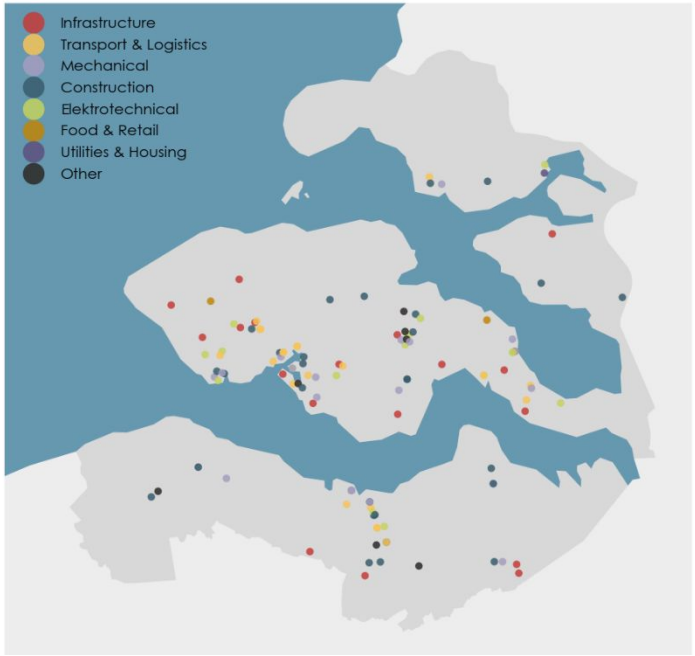
Opportunities for local companies to participate in the supply chain in Zeeland

Acknowledgements:
Participating companies from Zeeland
Hinkley Point C England supply chain organization
PEJ Poland Supply chain organization

We identified 130 Zeeland companies as possible suppliers

- The majority of these companies can be involved in the construction of new nuclear power plants.
- Focus was on direct suppliers





Supply chain pyramid

TIER:

01 TECHNOLOGY VENDORS

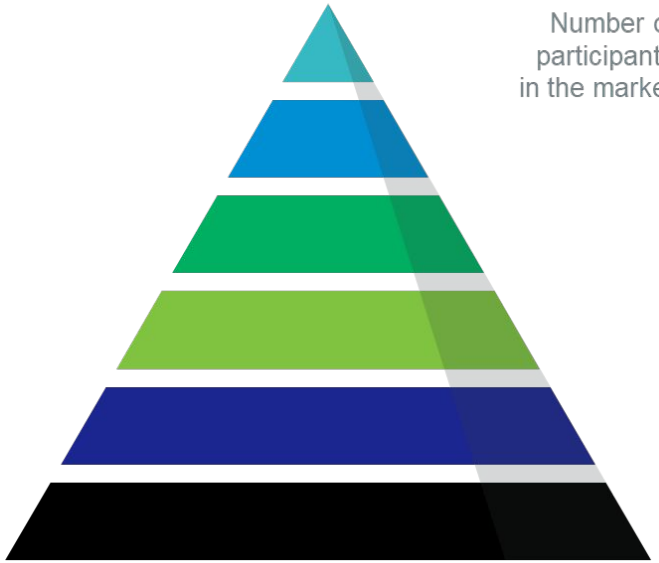
02 SYSTEM INTEGRATORS

03 COMPONENT SUPPLIERS

04 SUB-CONTRACTORS

05 MANUFACTURERS

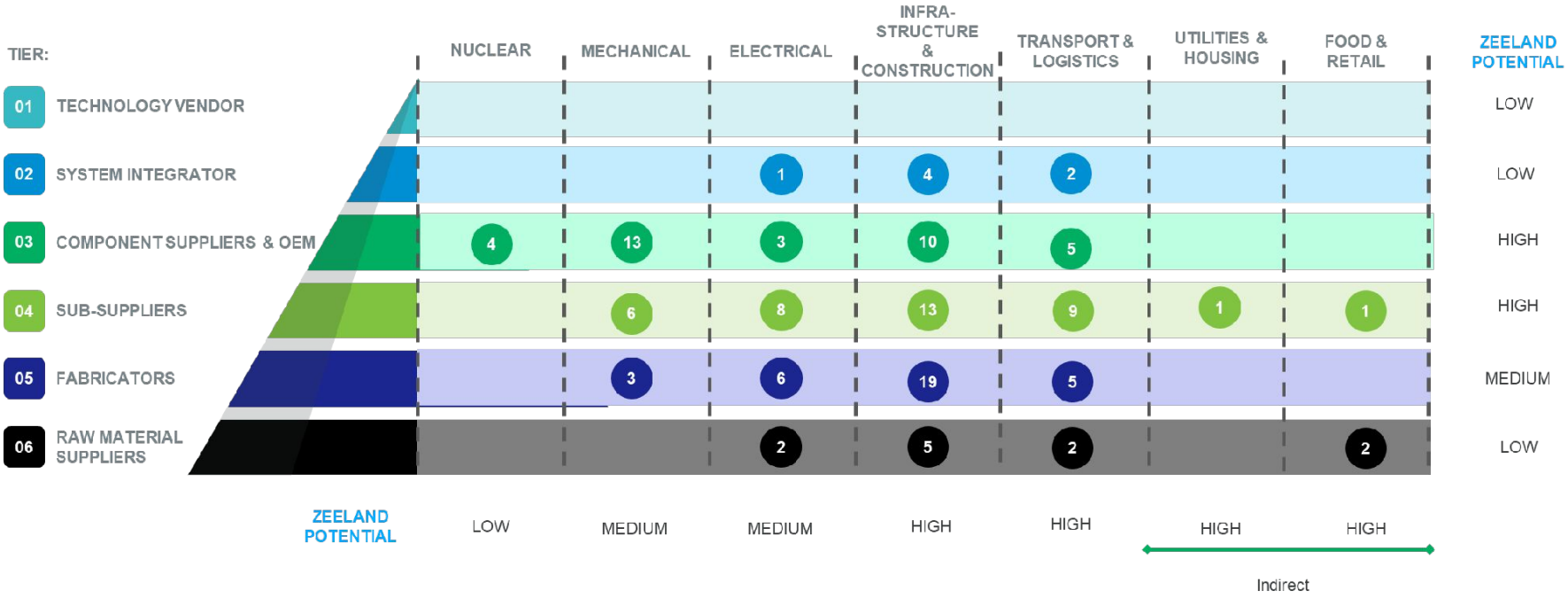
06 MATERIAL SUPPLIERS



Number of participants in the market: less → more

Barriers for entry: more → less

Big potential for contribution from Zeeland's infra-structure, construction and transport sectors



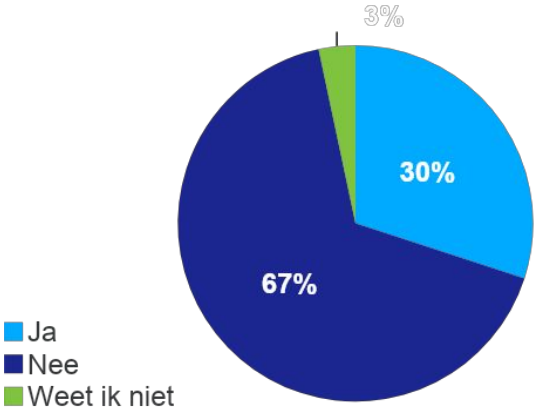
**Preliminary analysis:* 130 companies identified in Zeeland with 52 in Construction & Infrastructure

Construction phases and potential

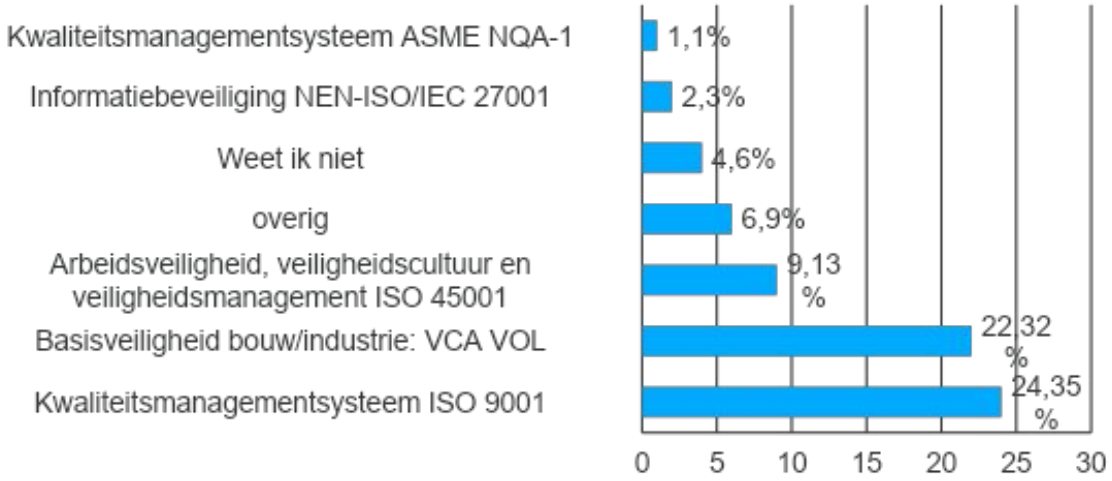
Are the Zeeland companies ready?

88% are interested!

Is your company prepared for supplying to NPP construction? (n=30)



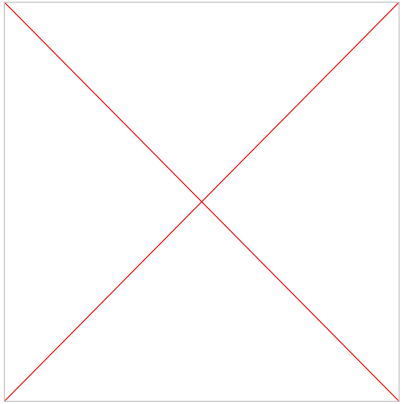
To which of the following standards is your company certified? (n=33, multiple answers possible)



SMR Supply Chain Potential for the port of Rotterdam

Potential for the port of Rotterdam analysed by mapping companies

- We have identified 92 companies in the port of Rotterdam ecosystem as potentially relevant for the SMR supply chain
- These companies were analysed and classified per sector, tier, SMR project phase and onshore/offshore relevance
- With this information we analysed the overall potential of the port of Rotterdam to be involved in the SMR supply chain – not the potential of individual companies



Results supply chain mapping

Results supply chain mapping

Results SMR phases mapping

Key Takeaways

- **The potential for local content is currently existing**
- **NL are strategically positioned to achieve ambitious targets**

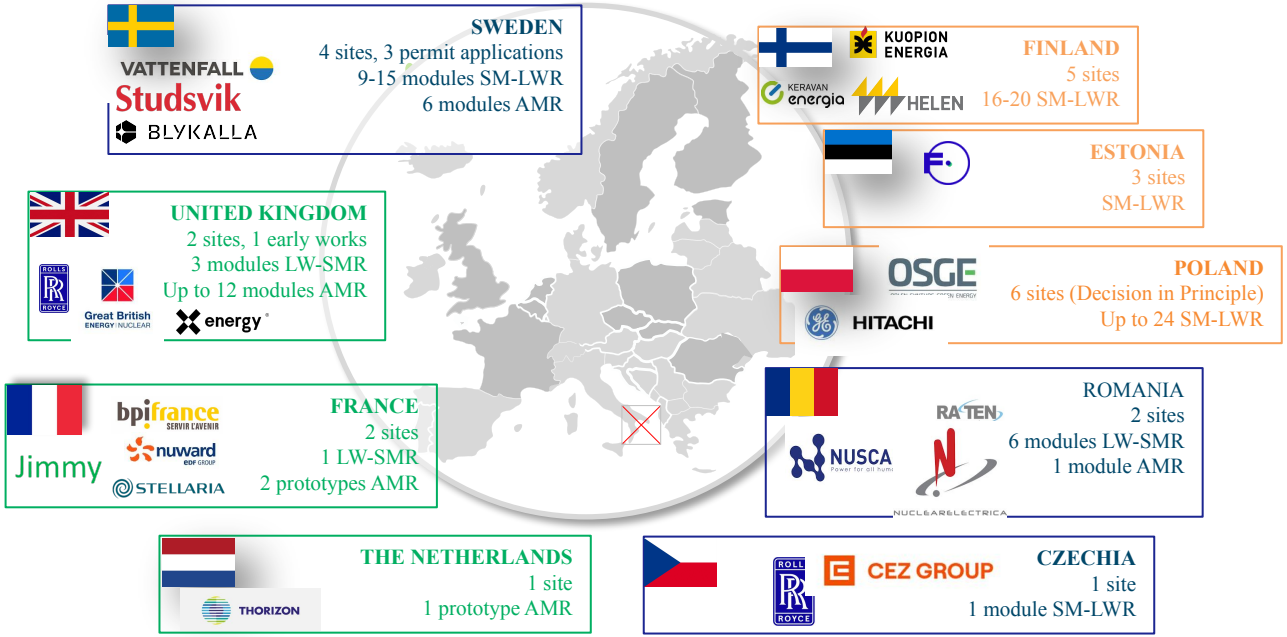
Beyond local content

Projects mushrooming around the EU

SMR projects: ~30 GWe by 2050

Large nuclear projects:

- UK: HPC and SZC
- FR: EPR2 programme
- PL: 2 sites
- CZ: Dukovany 5



Reframing the Dutch supply chain's role

"What could we bring to the global nuclear market?"

- Leverage presence of Port of Rotterdam
  - Established logistics and transport node: often business as usual (containers)
  - Different levels of ambition are possible

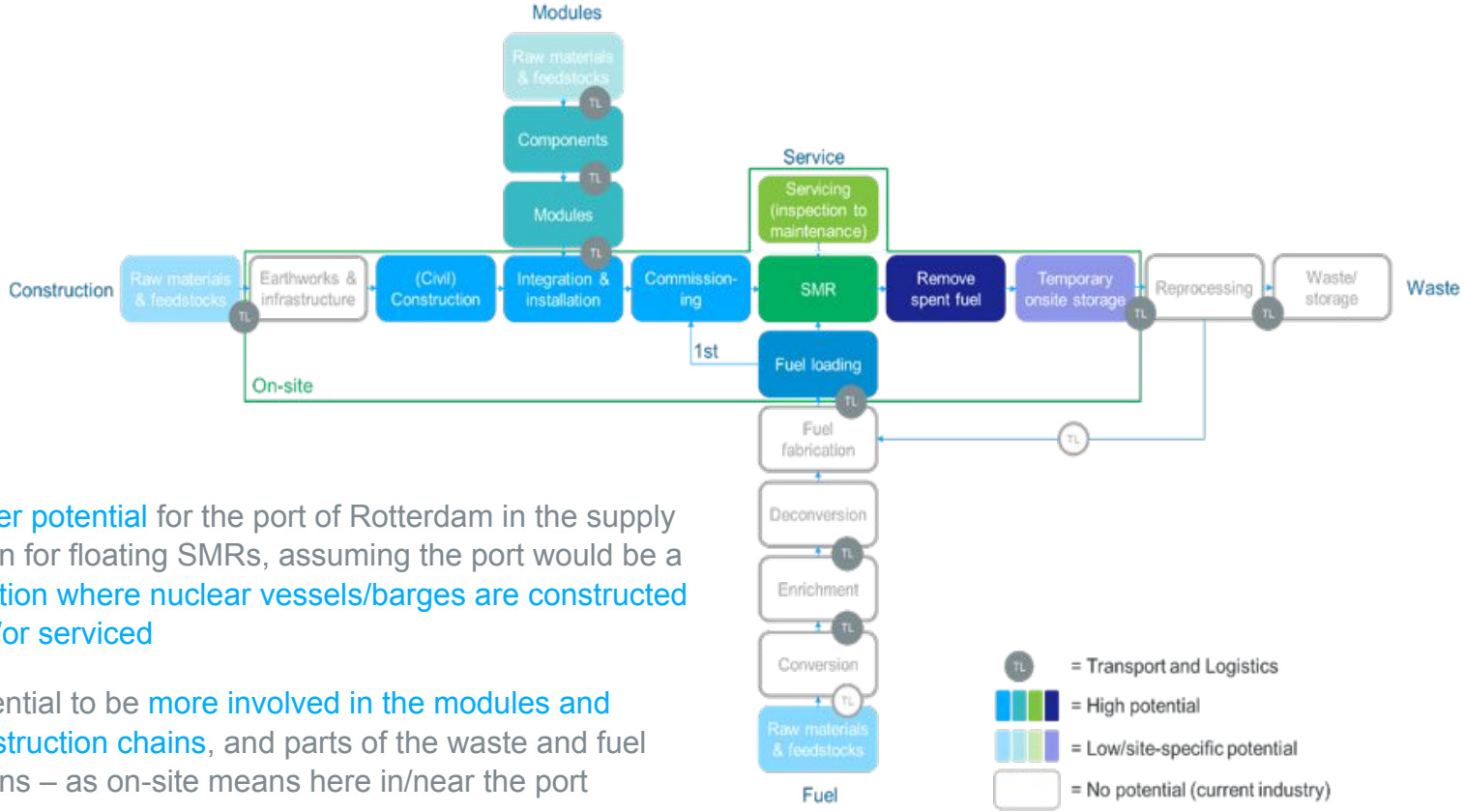
logistics/transit node – business as usual

industrial ecosystem contributing to the construction and integration of parts and components

Supply chain potential for land-based SMR

- Potential primarily in transport and logistics and potential to supply components by some companies
- Potential in construction chain dependent on SMR location (in/near port of Rotterdam/Netherlands)
- Low/no potential for involvement in the specialised waste and fuel chain beyond some transport & logistics

Supply chain potential for floating SMR



- Wider potential for the port of Rotterdam in the supply chain for floating SMRs, assuming the port would be a location where nuclear vessels/barges are constructed and/or serviced
- Potential to be more involved in the modules and construction chains, and parts of the waste and fuel chains – as on-site means here in/near the port

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a strategic European nuclear port constructing and servicing nuclear-powered vessels and barges

integrated nuclear port in the inland and maritime SMR supply chain by attracting (new) nuclear businesses dealing with nuclear fuel and waste

Key Takeaways

- **The potential for local content is currently existing**
- **NL are strategically positioned to achieve ambitious targets**
- **Supply chain preparedness needs acceleration**

Quality Passport: bringing newcomers into the nuclear sector

Requirements for entering supply chain

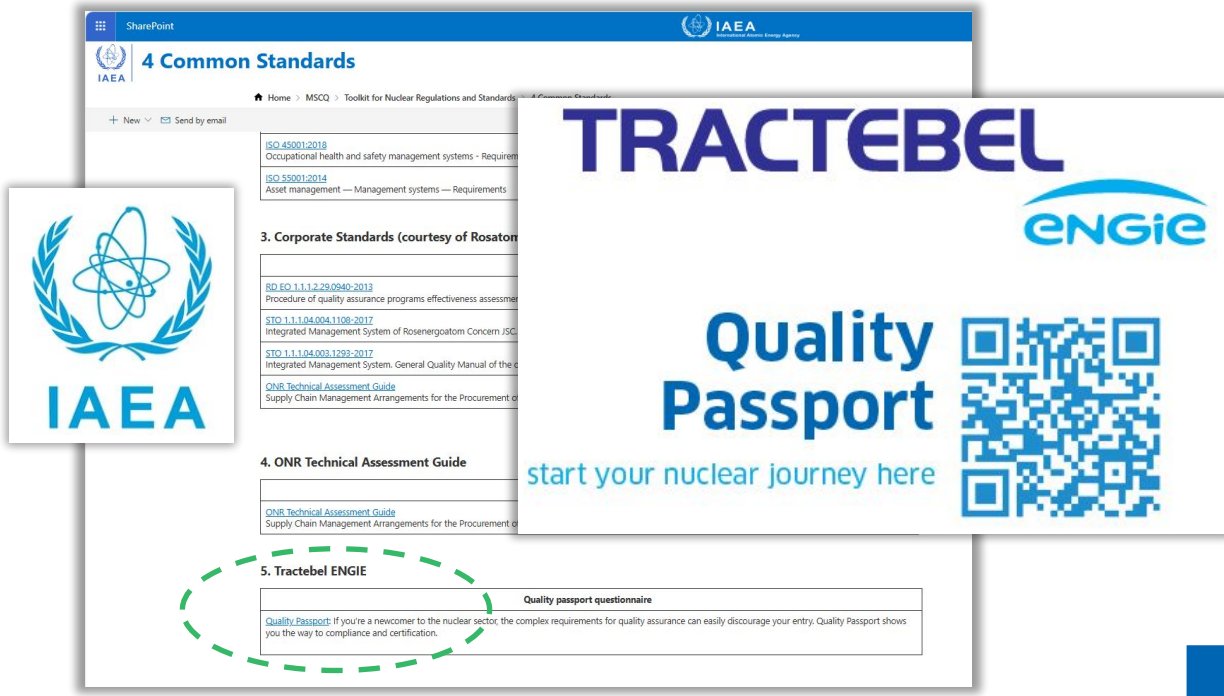
- **Entry is certification-driven**
  Participation in the SMR supply chain depends primarily on meeting nuclear-specific quality and certification requirements—not just technical capability.
- **Certification is necessary but not sufficient**
  Beyond QMS certification, suppliers must demonstrate additional evidence (process qualifications, audits, traceability, etc.).
- **Requirements are not fully harmonized**
  They vary by country, project, and vendor (e.g. ISO 19443 vs ASME NQA-1), creating complexity for suppliers.
- **Licensee and vendor drive the rules**
  Requirements are cascaded through design codes, safety classification (ITNS), and contractual obligations.
- **Structural “chicken-and-egg” challenge**
  Suppliers are expected to be ready, but requirements depend on vendor selection → uncertainty on where to invest.
- **Readiness depends on visibility**
  Limited clarity on future projects, timelines, and volumes slows down supply chain preparation.
- **Progressive entry is the norm**
  Most suppliers enter step-by-step, starting with non-safety scope and moving toward more critical components.

Nuclear Certification Path

Pre-audit assessment

An independent evaluation

- **Free gap-analysis** evaluation tool to address the challenges of the nuclear supply chain
- **Custom** report to clarify what's needed for your organization to pursue certification
- **Entry gate and first steps** for new suppliers
- **International** nuclear sector platform – see IAEA website



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"If everyone is moving forward together, then success takes care of itself." – Henry Ford

Thank you for your attention

Fabio Nouchy, SMR product development manager

Quality Passport

start your nuclear journey here

https://tractebel-engie.com/en/quality-passport

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