T-shore Education

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Enriching lives, opening minds.

Harmonizing Through Education:
T-Shore's Approach to Wind Turbine Technician Training

The T-shore Competency Profile & Harmonised Learning Scenarios

Co-funded by the European Union

Agenda

- Welcome and Introduction to the T-shore Team
- The Importance of Harmonising Education in Europe
- The T-shore Journey
- Today’s 4 Learning Scenarios
- Closing Remarks & Thanks

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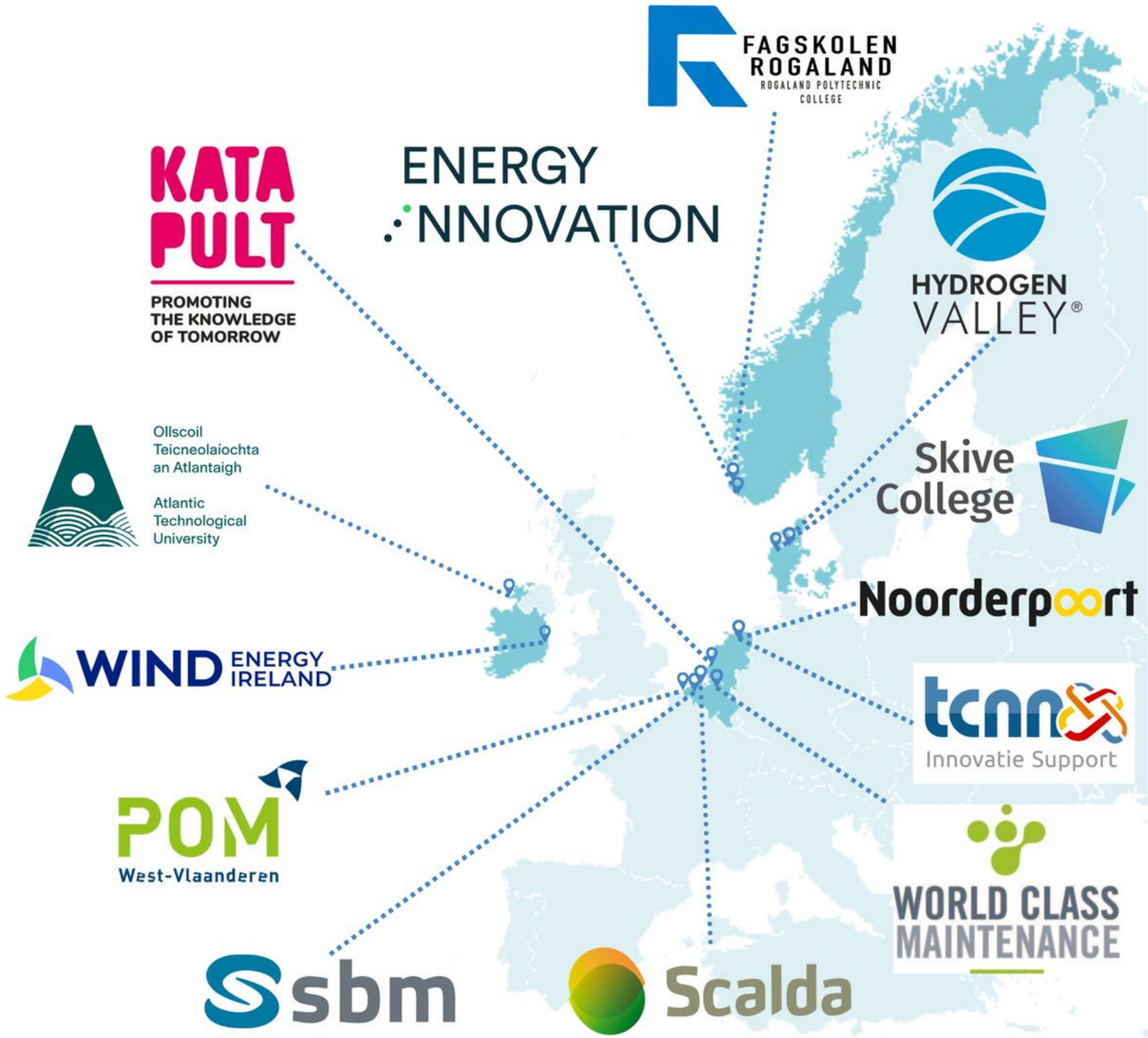
13 Partners
5 Countries
1 Team

Our Aim is to establish and expand the **Centres of Vocational Excellence for Offshore Wind Energy** and **Harmonise education and training** in the offshore wind turbine technicians



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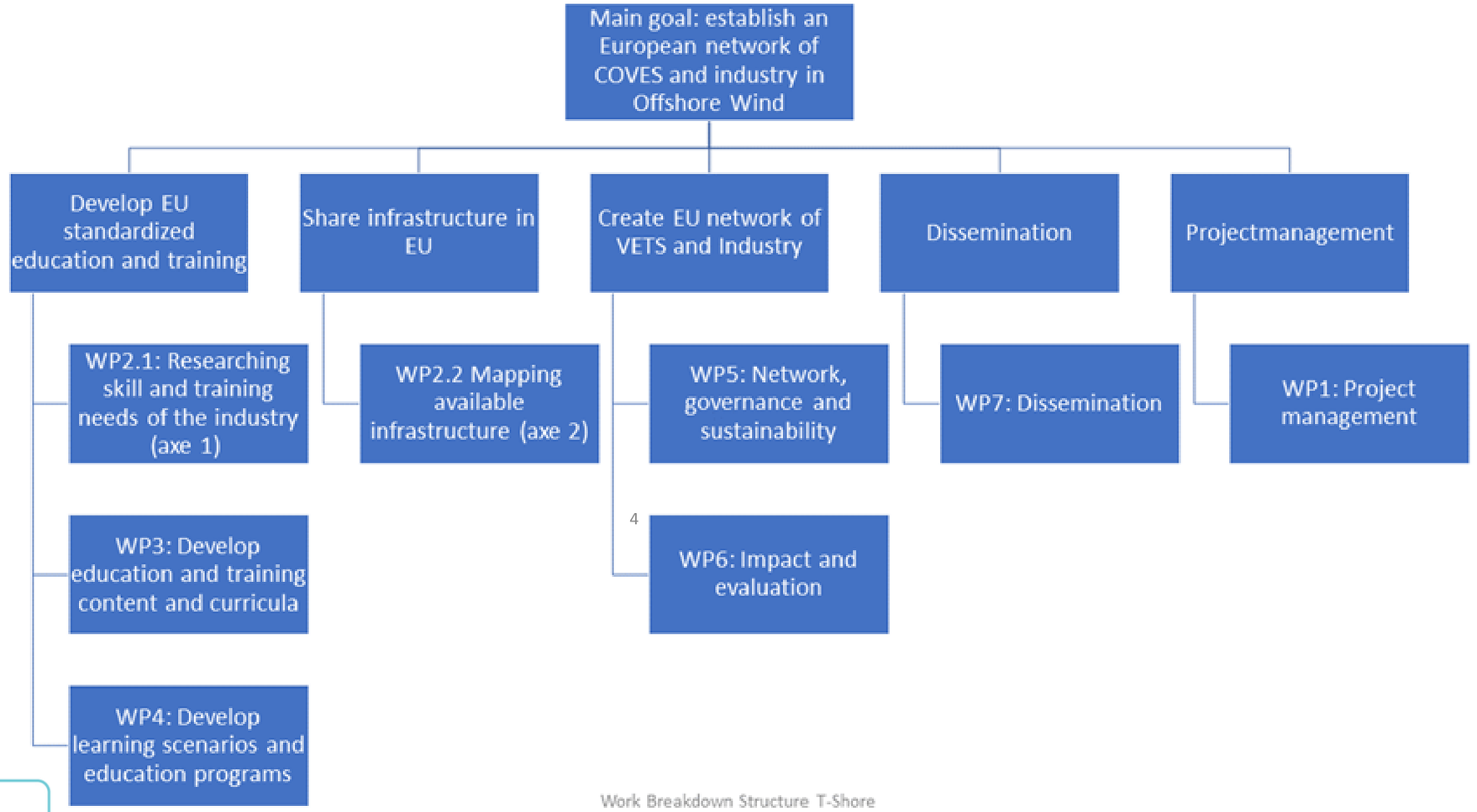
Scope of the T-Shore project



Work Breakdown Structure T-Shore

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T-shore Train the Trainer for project VET partners

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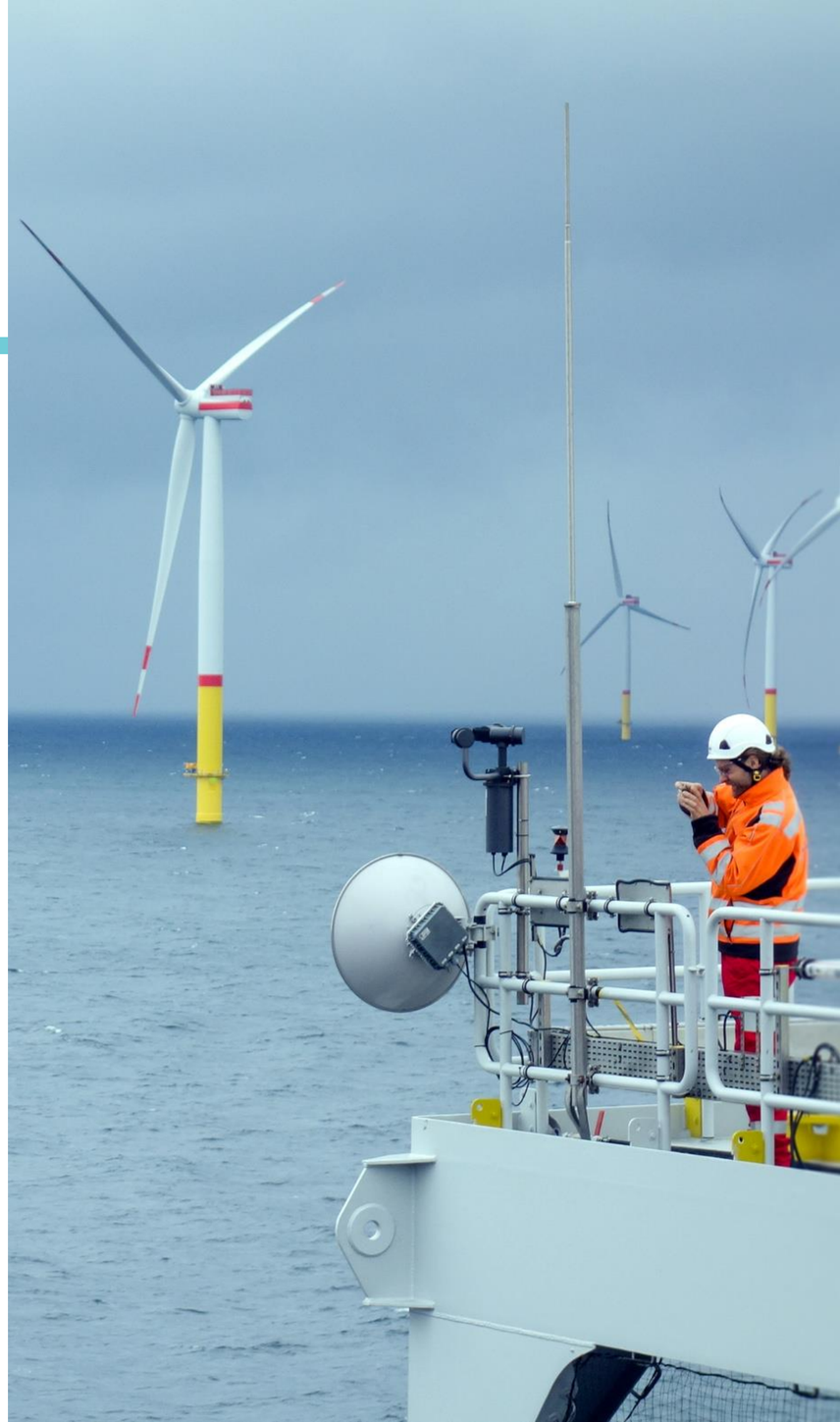
Our Programme

The T-shore training program for entry-level wind turbine technicians is designed to harmonise and standardise education for vocational education providers across Europe, preparing technicians with the necessary skills and knowledge to excel in the offshore wind industry.

The program includes ten comprehensive learning modules, each focusing on different aspects of wind turbine maintenance and operation with a strong emphasis on practical training for real-life situations that students encounter during apprenticeships, ensuring they are well-equipped for hands-on challenges at sea



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Why is T-shore harmonising learning scenarios?

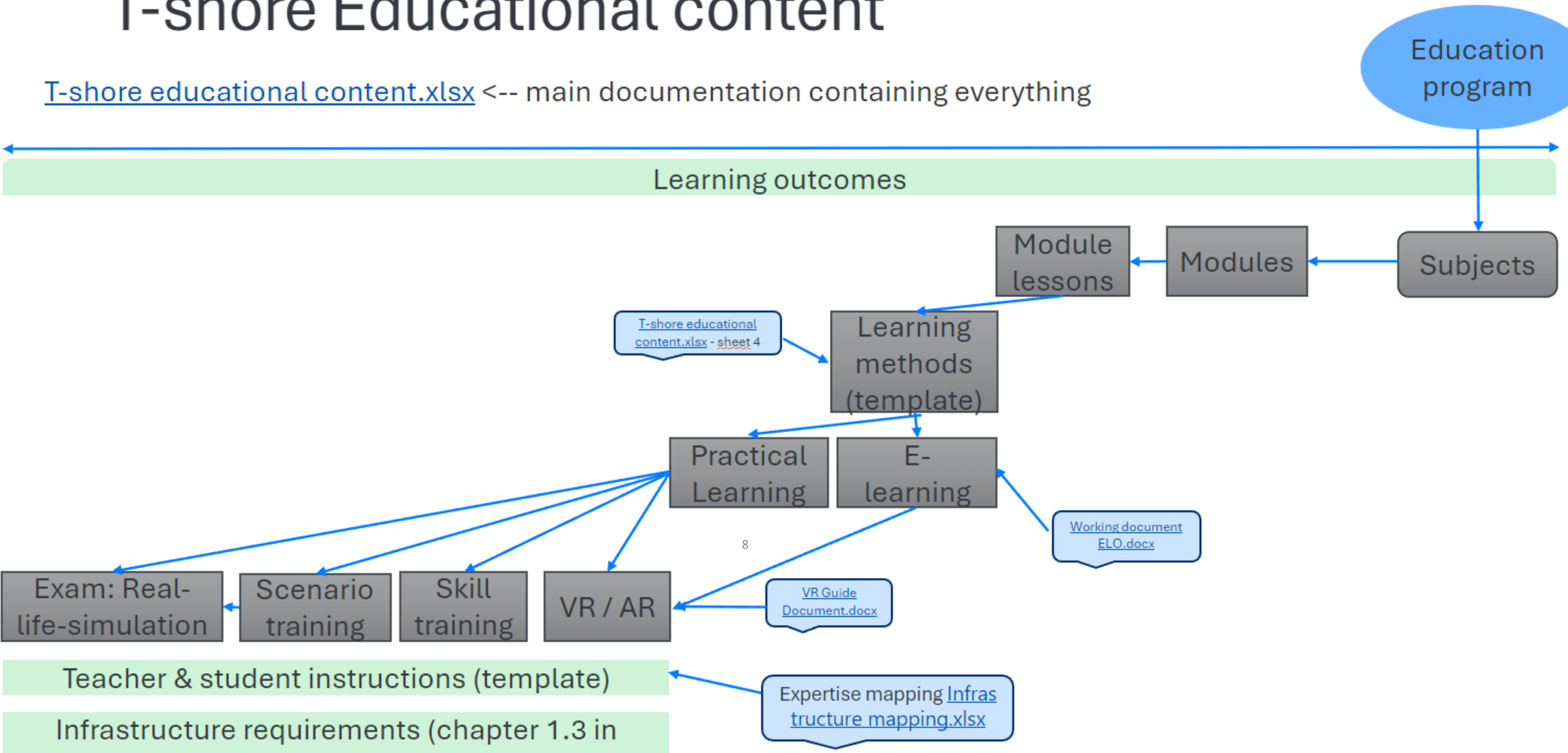
WP3 Year 1 Report:
Key Finding: Significant differences in educational systems across countries.

Brussels Partner Meeting (Nov 2023):
Outcome: Harmonisation of learning scenarios is achievable.

Amsterdam Partner Meeting (April 2024):
Development: T-shore competency profile with flexible learning scenarios.
Implementation: Adaptable to each country's VET programs according to their national systems.

T-shore Educational content

T-shore educational content.xlsx <-- main documentation containing everything



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All parts are documented in detail in the T-shore Learning module and scenario template.docx)

What is a competency profile?

"A competency profile for Vocational Education and Training (VET) is a detailed description of the knowledge, skills, and abilities (KSAs) that individuals need to possess in order to perform effectively in a specific job or occupation. "

- Skills and knowledge
- Abilities and behaviour
- Performance criteria
- Learning outcomes
- Assessment methods
- Industry standards

Identify competencies: What are key competences for starting offshore wind technicians?

[Curriculum document 1: Competency coverage matrix]

C1 Electrical skills
C2 Mechanical skills
C3 Hydraulic skills
C4 HSE skills
C5 Teamwork & Communication
C6 Familiarization with the Offshore Renewable Industry

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Modules

1.	Offshore Renewable Industry Overview
2.	Basic Electrical Skills
3.	Effective Teamwork and Communication
4.	Yaw Motor Systems
5.	Bolt Tightening Techniques
6.	Hydraulic Systems in Wind Turbines
7.	Gearbox and Bearing Maintenance
8.	Sensor Technology in Wind Turbines
9.	High Voltage Systems
10.	Power-to-X Fundamentals

Competency Profile

1.	Familiarisation with the Offshore Renewable Industry
2.	Electrical Skills
3.	Mechanical Skills
4.	Hydraulic Skills
5.	Health, Safety, and Environment (HSE)
6.	Teamwork & Communication

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Harmonised T-shore Training Programme

		Electrically Skilled Person EN50110 (Skive)	Sensor (Scalda)	Yaw motor (ATU)	Gearbox & bearings (Fagskolen Rogaland)	Bolt tightening (Energy Innovation)	Brake disc (Syntra)	Pitch Control (Syntra)	Teamwork & Communication (ATU)	Intro 1 ORE (Noorderpoort)	Intro 2 Power-to-X (Skive)
Competencies	Electrical skills										
	Mechanical skills										
	Hydraulical skills										
	HSE skills										
	Teamwork & Communication										
	Familiarization ORE										

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Using COVE to verify WP3-4 with local industry

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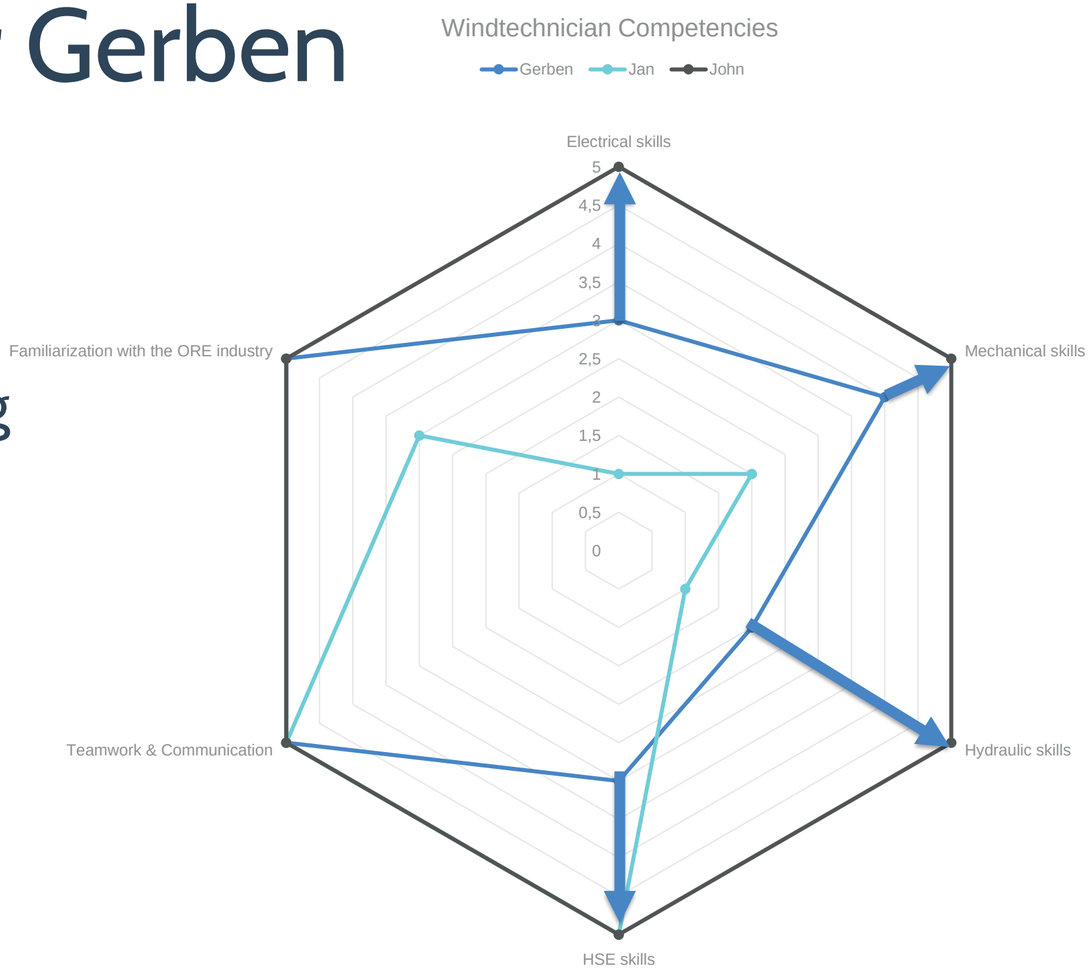
Working Example:
Individual learning route for Gerben

Electrical skills +2 = sensor or yaw motor

Mechanical skills +1 = Gearbox or bolt tightening

Hydraulic skills + 3 = Brake disc

HSE skills +2 = complete the t-shore training



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How does this relate to GWO Entry level framework?

T-shore training program

- Public VET
- COVES
- 16 weeks or longer
- For free?
- ???

GWO Entry level framework

- Commercial training
- GWO Members
- 4 weeks
- Licences and costs
- ???

Global Wind Organisation

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VET Skills competition for windtechnicians

T-shore training program

- Erasmus+ KA1 exchange travel for 5 days is possible for skills competitions
- International week of the windtechnician
- VET windtechnician skills competition
- https://erasmus-plus.ec.europa.eu/programme-guide/part-d/glossary-vet
- https://worldskillsnetherlands.nl/wedstrijd/skillsheroes/

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SIGN UP

Thank you!

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