Robintech

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“ROBINTECH-Towards Networking and Collaborative Teaching Materials in the Field of Industrial Robotics”

is an ERASMUS + cofunded project. Aiming to adapt vocational education and training according to labour market needs, focusing on the automation and industrial robotics, the project was launched in November 2024.

The project partners are 5 VET education and training organisations: **Tartu Rakenduslik Kolledž** from Estonia, **Koulutuskuntayhtyma OSAO** from Finland, **IES Bernat Guinovart** from Spain, **FORAVE - Associação para a Educação Profissional do Vale do Ave** from Portugal and **ROC Mondriaan,** from the Netherlands.

EU Industrial Strategy from March 2020 aims to boost the competitiveness and resilience of European industry. It includes initiatives to support the adoption **of advanced technologies such as robotics to enhance productivity and innovation.** However, the growth of automation and industrial robots is not supported by equally stable growth in available skilled labour. There is a skills gap between companies’ expectations and what educational institutions currently offer, highlighting the need to equip both existing and future industry specialists with new and improved competences and skills.

Training, upskilling and reskilling is vital, because depending on the country and occupation, 25-45% of jobs will be subject to automation. Therefore, increased automation and robotisation will have an impact on what companies expect from the teaching of technicians and engineers.

Vocational schools preparing specialists in automation and robotics understand the needs of industry. From the vocational education institutions’ point of view, there are two main needs to improve the situation in teaching automation and industrial robotics:

- **»Industry collaboration and partnering with companies** to update teachers’ skills and bring current expertise to education.

- **»Available teaching resources through collaboration,** as existing resources are limited.

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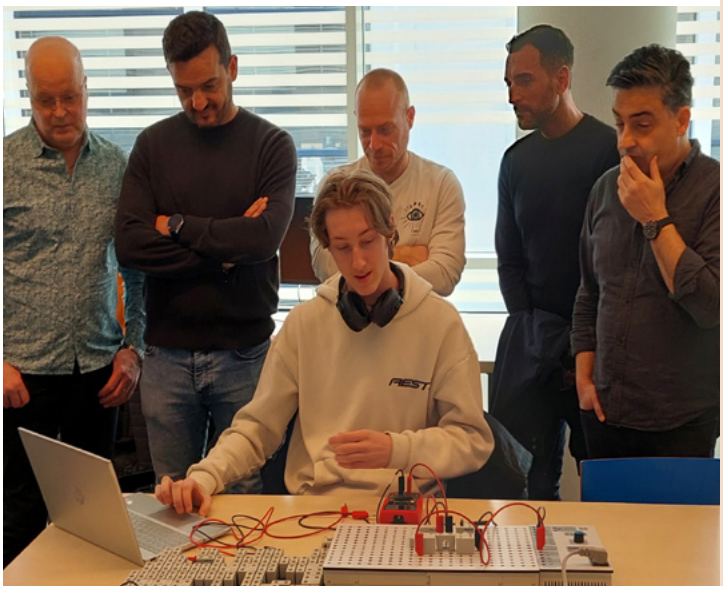
ROBINTECH will develop networking of partner VET schools and companies to share knowledge and increase the quality of automation and robotics training.

We specifically aim to connect robotics and automation teachers with practitioners in industries to improve teachers' professional competencies and create and test new teaching materials in the fields of industrial robotics and automation and put them into practice to streamline training in VET education.



OUR MAIN ACTIVITIES ARE:

- Teachers joint training and internship programmes in companies
- Creating five sets of teaching materials on automation and robotics (EQF level 4)
- Piloting and evaluating new materials
- Publishing and promoting the use of 25 new training modules for practical automation and industrial robotics training

THE MAIN RESULTS OF THE PROJECT ARE:

- Active networking for skills development between participating VET schools and associated partners
- 25 new and quality training materials to provide quality training in industrial robotics and automation
- Use of the results to streamline the quality of VET education in participating countries

PARTNERS

TARTU RAKENDUSLIK KOLLEDŽ
TARTU VOCATIONAL COLLEGE

OSAO

IES Bernat Ginovart

escola profissional
forave

roc MONDRIAAN

Teachers´Seminar in ROC Mondriaan

The first **ROBINTECH** Teacher Seminar took place in Delft, last March. After months of online sessions, education professionals from the five European partners finally met in person to collaborate on innovative materials for robotics education.

The seminar started with presentations on teachers´ competencies and existing curricula by OSAO and FORAVE.

Under the guidance of the project coordinator, **Kaire Mets** from VOCO, participants engaged in a deep discussion on **quality standards for educational materials.** Using the Learning Object Review Instrument (LORI), key criteria such as interaction, accessibility, and flexibility were identified.

Guided by Miriam Krol and Marjolein van Daalen, from ROC Mondriaan, through interactive assignments and visual tools, **partners collaboratively worked on a blueprint for the ROBINTECH modules,** a flexible design that each partner school can integrate into its own curriculum. New educational modules on **Practical Applications of Machine Vision, EPLAN, PLC communication IOLink, Welding Robots and Integration of Robots with CNC Machines** will be developed involving industries ensuring teachers up-to-date knowledge and teaching compliance with current industry requirements and technological innovations.

During the working days, there were also inspiring visits to companies and technology centers:

INFINITEACRES

Airborne

SAM XL

Infinite Acres, pioneers in vertical farming, where partners were shown how automation and sensor technology can optimize growing conditions for crops.

Airborne Manufacturing, gave participants insights into the production of composite parts for the aerospace industry and into the development of advanced automation solutions and robotics cells for further automation in composite processing.

SAM XL, an expertise center for advanced manufacturing automation which focusing on the production of XL components, particularly for the aerospace industry.

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