

Newsletter 1 – June 2017

KA202-024423 Robotics, Automation Careers in Engineering for 21st Century (RACE21)

RACE21 is an opportunity for collaboration between VET providers, students, employers and relevant stakeholders in the same VET field across Europe. Partners will exchange methodologies and good practices approaches, to improve the expertise of VET teachers and to embed extra-curricular activity in the field of automation and robotics.

RACE21 is a partnership between six VET colleges (UK, Spain, Portugal, Italy, Finland and Romania) and an evaluation partner in the Czech Republic.

A three year ***'problem based learning'*** project delivered through Robot Clubs is aimed at developing new, innovative, creative curriculum in the field of robotics and automation. 60 businesses provide a real world learning environment leading ultimately to 12 integrated robotic solutions.

New pedagogy will be developed enabling higher level 'applied' automation and robotic skills increasing entrepreneurial, innovation and creativity and skills narrowing the gap between academia and the world of work.

RACE21 commenced on 1 September 2016 and will finish on 31 August 2019. 270 VET students, 12 lecturers and 60 businesses will directly participate with some 800+ students benefiting indirectly.



RACE21 is a unique opportunity to engage VET engineering students with employers in an innovative way building on the shared learning from (RACE) Robotics, Automation Careers in Engineering RACE21 seeks to move students from ***'How to Build a Robot'*** to ***'How to Integrate a Robotic Solution'***.

Through this project students will ***'hit the ground running'*** in an industry sector that has an in-build bias towards entrepreneurship, creativity and innovation.

In keeping with the global industrial norm for this sector the working language is English. Key documents will be translated in to partner languages.

RACE21 will provide opportunities for students and VET lecturers to participate in blended mobilities and short-term joint staff training events. Participants will be credited through Europass.

RACE21 Steering Group meet to coordinate the project and showcase results.



Project Objectives:

- To work collectively as a network to develop a transnational Robot Club
- To increase the technical understanding and activity of 10+20 VET staff and 270 VET students throughout the project lifetime and by 20% thereafter.
- To narrow the gap between academia and the world of work through the use of problem based learning techniques thereby creating better conditions for transition to working life.
- To deliver 12 robotic solutions for local micro-SMEs
- To create a new unit in 'integrating a robotic solution'

RACE21 Partners:

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**24-25 October 2016 – Transnational Meeting 1
– NRC, Northern Ireland, UK.**

After presenting the VET system in their country the Steering Group agreed work packages and responsibilities in:

- Project Management and Coordination
- Blended Mobilities
- Staff Training Events
- Communication, Dissemination and Evaluation

Tour of Northern Regional College, meet staff and students.

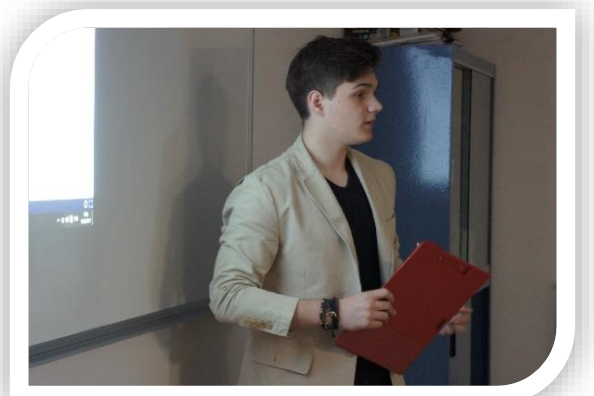
- Library and Social Areas
- Creative Digital Media – Animation
- Engineering – AutoCAD Solid Works
- Fabrication and Welding
- Motor Vehicle
- Construction – Joinery and Plumbing
- Animal Management



**14-18 May 2017 – 5 Day Blended Mobility –
Daniel Castelao, Vigo, Spain**

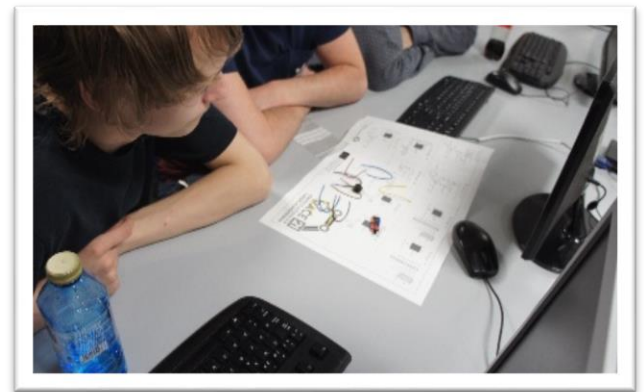
Partner Robot Clubs undertook research, visited companies and interviewed industry leaders in their own countries to explore the primary motivation for implementing a Robotic or Automation solution.

A1 Activity – How companies consider the business case for Robotics/Automation



At the 5 Day Blended Mobility 18 Students from partner 6 countries presented the findings from Activity A1.

Students demonstrating their skills in Robotics and Automation during a transnational workshop.



Staff and students also immersed themselves in cultural activities including an open top bus tour of the city, a treasure hunt on the picturesque and historic San Simon Island and kayaking along the beautiful Vigo coastline.



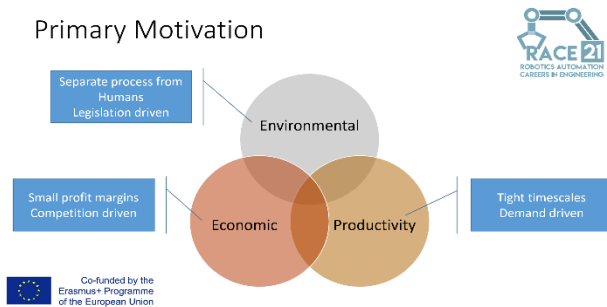
1-2 June 2017 – Transnational Meeting 2 – AEVA, Aveiro, Portugal.

Project Steering Group met to take stock of Year One activities, develop the Strategic Partner Handbook and plan for Year Two.

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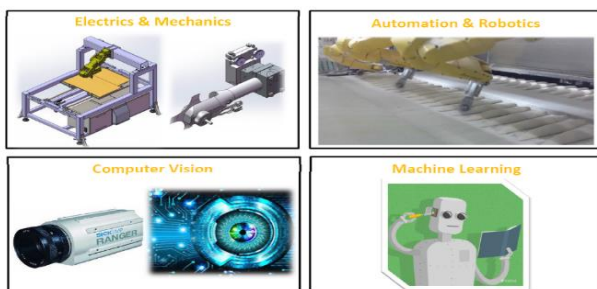
Primary Motivation



Students also visited two companies to see different approaches to implementing a robotic or automated solution.

- **SIMAUPRO** – Supply led approach
- **GKN Driveline** – Demand led approach

2. Bread Scoring Smart System – Main Elements



SIMAUPRO
vision artificial



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