

## Lessons learned in the alliance for sports engineering education (a4see), an erasmus+ project

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## LESSONS LEARNED IN THE ALLIANCE FOR SPORTS ENGINEERING EDUCATION (A4SEE), AN ERASMUS+ PROJECT

A.J. Jansen<sup>1</sup>, A. van Vlaardingen<sup>1</sup>, S. Choppin<sup>2</sup>, J.Hart<sup>2</sup>, S. Litzenberger<sup>3</sup>, S. Schwanitz<sup>4</sup>, M. de Zee<sup>5</sup> and P. Madeleine<sup>5</sup>

<sup>1</sup> Delft University of Technology, Mekelweg 5, 2628 CD Delft, Netherlands

<sup>2</sup>Sheffield Hallam University, Howard St , Sheffield, S1 1WB, United Kingdom

<sup>3</sup>University of Applied Sciences Technikum Wien, Höchstädtplatz 6, Vienna, 1200, Austria

<sup>4</sup>Chemnitz University of Technology, Reichenhainer Str. 70, Chemnitz, SN, 09126, Germany

<sup>5</sup>Aalborg University, Fredrik Bajers Vej 7K, Aalborg, 9000, Denmark

The Alliance for Sports Engineering Education is a Knowledge Alliance project co-funded by the Erasmus+ Programme of the European Union [1]. It started in 2020 and will cover a period of 48 months (including a 12 months extension). Eleven beneficiaries from six European countries participate (see Table 1).

Table 1: Academic and non-academic participants in the A4See consortium

Higher Education Institutions	Enterprises and Federations
Delft University of Technology (Netherlands, lead partner)	MAGURA Gustav Magenwirth GmbH & Co. KG (Germany)
Sheffield Hallam University (United Kingdom)	VAUDE Sport GmbH & Co. KG (Germany)
University of Applied Sciences Technikum Wien (Austria)	EPSI European Platform for Sports Innovation (Belgium)
Chemnitz University of Technology (Germany)	Labosport Ltd (United Kingdom)
Aalborg University (Denmark)	Motek Medical B.V. (Netherlands)
	Catapult Sports Ltd (United Kingdom)

This project was started to address the perceived gap between enterprises and universities within sports engineering. University members have a lack of entrepreneurial & cross-disciplinary training and a limited understanding of business culture. Enterprises rely on a wide variety of technologies but have few opportunities for dedicated life-long learning.

The goal of the project is, therefore, to close this gap by improving the training of sports engineering students for the demanding job market. By involving enterprises directly in learning activities, students get better exposure to field-specific sports engineering knowledge as well as entrepreneurial skills. We want to reduce the mismatch between the skills our young graduates have and those required by vacancies in the sport engineering fields.

The project is divided over six work packages in which the enterprises and universities work together. They aim at creating novel learning contents as well as to develop and apply innovative teaching-learning settings (see Fig. 1).

	Joint learning activities	Open online course	Innovation fellowships
Provide the sports industry with appropriate life-long learning solutions	✓	✓	
Enable cross-sectoral cooperation in the sports industry	✓		✓
Improve the fit between HEI curricula and the sports industry	✓	✓	
Reduce the cultural barriers between HEIs and sports industry	✓		✓
Supported by an online platform and A4See symposia			

Fig. 1: Teaching-learning scenarios developed within A4See

The joint learning activities consist of: the Industrial Collaboration Experience, a Special Topics Week and the Innovation Marketplace. In these activities students and staff member cooperate in projects provided by the enterprises. The open-online courses have three levels to cater for a broad audience, this includes professional level courses on various subjects to allow for lifelong learning by professionals. The innovation fellowships allow for exchange of staff members between enterprises and universities and are open for student internships. All actions are supported by online platforms [2, 3] and yearly symposia.

Covid has severely hampered the start of the project but also taught us how to deliver hybrid teaching solutions; prepare on-line and meet only when really needed. The exchange programs, both for students and staff, had to be cancelled totally due to the travel restrictions (which were poorly aligned over Europe). Next to these (now seen as standard) issues, we observed that the existing differences between enterprises and universities were enlarged due the following issues:

- Faculty was experiencing increased work load due to the need for switching to on-line education,
- Enterprises either had to struggle for their existence or experienced a major increase in demand. Both situations not being favourable for spending time on the project.

Luckily, the governing organisation in the EU allowed for a project extension and redistribution of the project funding over the partners and this allowed us to re-allocate the travel funds and still reach the goals of the project.

With the slow decline of Covid, some project results are becoming tangible. In the remaining runtime of the project we expect to recover fully from the slow start and successfully finish this project and empower sports engineering.

[1] [www.you-net.eu/erasmus-programme-guide.html](http://www.you-net.eu/erasmus-programme-guide.html)  
 [2] [www.a4see.com](http://www.a4see.com)  
 [3] [www.learning.a4see.eu](http://www.learning.a4see.eu)

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