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# ***GUIDELINES FOR DEVELOPING SUPPORT SERVICES AND INFRASTRUCTURES FOR STUDENT-BUSINESS CHALLENGES***

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**Co-funded by  
the European Union**

# IMPRINT

## Project Result 7 of the Challenge4Impact Project

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### Proposal for citation

Fichter, K., Widrat, A. (2024). Guidelines fore  
Developing Support Services and  
Infrastructures for Student-Business  
Challenges. Oldenburg, Linköping, Zuidlaren.  
URN: <http://nbn-resolving.org/>  
urn:nbn:de:gbv:715-oops-73136

The creation of these resources has been  
(partially) funded by the ERASMUS+ grant  
program of the European Union under grant  
no. 2021-1-DE01-KA220-HED-000032242.  
Neither the European Commission nor the  
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This publication is available as a PDF file at:  
[www.challenge4impact.eu](http://www.challenge4impact.eu)

Oldenburg, August 2024

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# INVENTORY

## List of Abbreviations

<b>CBL</b>	Challenge-based Learning
<b>C4I</b>	Challenge4Impact
<b>ESD</b>	Education for Sustainable Development
<b>HEI</b>	Higher Education Institution
<b>PbBL</b>	Problem-based Learning
<b>PjBL</b>	Project-based Learning
<b>R&amp;D</b>	Research & Development



### About Challenge4Impact

[Challenge4Impact](#) (Developing Partnerships for International Virtual Student-Business Challenges in Sustainable Entrepreneurship) is a research project funded through the EU Erasmus+ programme. The main goal of the project is to contribute to the development of sustainable innovations to help tackle the grand challenges by means of university-business collaboration. Specifically, the project focuses on student-business challenges in sustainable entrepreneurship that address sustainability-related challenges and target innovative solutions with the potential to create positive economic, environmental, and social impact and contribute to achieving the UN Sustainable Development Goals (SDGs).

Running from 2022 to 2025, Challenge4Impact builds on the preceding EU Erasmus+ project [ScaleUp4Sustainability](#) which championed a range of regional student-business programmes in co-creating eco-innovation (“collaborative green venturing”). Challenge4Impact consolidates the results from ScaleUp4Sustainability by focusing on challenge-driven learning formats and developing new insights for their successful development and integration in higher education institutions around the world. In light of unprecedented global challenges, the importance of international collaboration becomes ever more acute. For this reason, the Challenge4Impact project focuses on cross-border and cross-industry entrepreneurial learning using digital means.

# 1 INTRODUCTION

Higher education institutions (HEIs) both act as **change agents** in a world facing societal grand challenges and design and deliver so-called **change agent education** to train future change makers and innovators.<sup>1</sup>

On the one hand, HEIs are integrating education for sustainable development (ESD) across their curricula, aimed at empowering “learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for environmental integrity, economic viability and a just society empowering people of all genders, for present and future generations, while respecting cultural diversity” (UNESCO, 2020, p.8). On the other hand, HEIs have seen a new wave of entrepreneurial activities which go beyond mere commercialisation of innovation based on research in the sciences. These take an explicit focus on students and encompass, for instance, accelerator programmes and student-industry partnerships (Duruflé, Hellmann, & Wilson, 2018).

The development of new curricula that are relevant to the changing needs of society goes hand-in-hand with advancing teaching and learning methodologies to engage students in experiential learning and co-innovation processes with industry stakeholders to create new solutions to sustainability challenges. Given the involvement of external stakeholders and the deep learning processes enabled,

experiential learning formats such as student-business challenges are said to provide one of the best opportunities for students to apply their theoretical knowledge outside the lecture hall. However, they are also the most difficult type of experiential learning to scale (McKeen, Laufer, & Jester, 2018) and often remain “single-use” and tailored to individual modules and programmes (Good, Ziaukas, McCarrick, & Butter, 2023).

Based on latest literature and our extensive experience, in the following we introduce how these challenges in relation to institutionalising and scaling innovative teaching and learning formats such as student-business challenges can be tackled. The goal is to provide a set of guidelines for HEIs who want to develop effective support systems and sustainable infrastructures and models for developing and scaling local to international student-business challenges. The guidelines are relevant for HEI teachers, curriculum designers, HEI transfer managers, and other professionals involved in realising experiential educational programmes and learning journeys using innovative pedagogic approaches such as CBL.

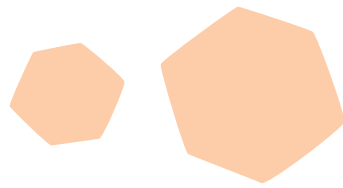
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1 (Stephens, Hernandez, Román, Graham, & Scholz, 2008; van Rijnsoever, Sitzler, & Baggen, 2023)

## 2 **STUDENT-BUSINESS CO-INNOVATION IN SUSTAINABLE ENTREPRENEURSHIP - AN INTRODUCTION**

Educating for sustainable development calls for pedagogies which engage students in transformative learning, integrating **experiential and collaborative** activities and processes.<sup>2</sup>

As an educational technique that fosters learning from experience and learning by doing, experiential learning encourages learners to get in touch with the realities studied and motivates reflection of experience to develop new attitudes and skills. It is often contrasted with traditional learning in lectures and classrooms (Kolb, 2014).



Especially the university field of entrepreneurship has evolved to provide solution-oriented education that equips students with the competencies needed to take action in response to economic, social, and environmental crises. While not yet the mainstream paradigm in HEI teaching, more and more business schools and programmes are integrating sustainability thinking into their entrepreneurship education offer, not least to keep their legitimacy and function as solution provider to multiple crisis (Dyllick, 2015). In recent years, there has been a similar development of schools and programmes,

including sustainability schools, increasingly incorporating entrepreneurial thinking and tools into their programmes (Folmer, Schadenberg, & Long, 2023).

Given sustainable entrepreneurship builds on a range of knowledge areas, competencies and attitudes, sustainable entrepreneurship education aims to enable experiential learning processes (Folmer et al., 2023; van Rijnsoever et al., 2023). Over the years, this has been reflected in a steady transition from traditional classroom teaching to employing more student-centred teaching approaches. Hence, experiential learning has evolved to be a key characteristic of sustainable entrepreneurship education (Folmer et al., 2023) and includes forms such as project-based learning (PjBL), problem-based learning (PbBL), and challenge-based learning (CBL).

Having entered the landscape of teaching and learning practices as an evolution of PjBL and PbBL in recent years, CBL distinguishes itself by way of its focus on real-life challenges and the development of

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<sup>2</sup> (Viera Trevisan, Leal Filho, & Ávila Pedrozo, 2024)

real and applicable solutions, encouraging problem-solving, collaborative learning, critical thinking, and the use of digital tools to improve the educational experience (Vilalta-Perdomo, Membrillo-Hernández, Michel-Villarreal, Lakshmi, & Martínez-Acosta, 2022). Besides collaboration with teachers who act as coaches and facilitators, CBL also foresees students to work with external stakeholders (Mayer, Ellinger, & Simon, 2022). These are typically companies or organisations with a socio-technical question, theme, or problem who may be involved in challenge formats as so-called challenge owners or providers (Ambrosi & Hermsen, 2023).

Given CBL centers around elements such as working on real-world problems, developing innovative solutions, and interacting with stakeholders, it can be said that fostering

entrepreneurial competencies and experiences is inherent to the CBL pedagogy (Martinez & Crusat, 2020). According to the largest European study on university-business collaboration carried out to date, especially in the last years businesses have started to discover the benefits of working with HEIs and students to foster talent development and innovation specifically (European Commission, Directorate General for Education, Youth, Sport and Culture, Meerman, & Davey, 2018). In the Challenge4Impact project, we focus on student-business challenges as a specific format of CBL in which a business partner provides a real-world innovation-related problem or question (the challenge), which is then worked on by students who attempt to develop a solution or answer to the challenge.



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# 3 DEVELOPING SUPPORT SERVICES AND INFRASTRUCTURES FOR STUDENT-BUSINESS CHALLENGES

## 3.1 BUILD UNIVERSITY-INTERNAL CAPACITY

### 3.1.1 Embed CBL into university vision and strategy

To move from single-use CBL formats and pilot programmes to scaling of CBL across university campus and departments, university leadership and management are required to integrate experiential learning approaches such as CBL into the university's vision and policy. The uptake into university vision will create a foundation for strategic intent and decision-making, making CBL an inherent part of future institutional

developments and giving more attention and legitimacy for resources (McKeen et al., 2018). This is essential to set an explicit directive for future action and to nurture an environment and innovation culture in which spaces for experimentation and development of CBL formats can take shape.



#### TU/e Vision on Education

At TU/e Eindhoven University of Technology, a research university specialising in engineering science and technology in the Netherlands, CBL is described as “an authentic, integrative, and activating educational concept” that has been put forth as one of three characteristics that form the basis of future TU/e education. In its 2030 Strategy document, TU/e states it will transform its research-based education from teaching to learning with a focus on challenge-based projects.

More info: [TU/e Vision on Education](#), [TUE/e Strategy 2030](#)

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#### The Tec21 Educational Model

The Tec21 Educational Model instituted and continuously developed since 2014 at the Tecnológico de Monterrey in Mexico integrates the purposes of the university vision and presents a pioneering implementation of CBL across all of the university's programmes.

More info: [Tec21 Educational Model](#)



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In the process of incorporating CBL into the university vision, university leadership and management is encouraged to consider the importance of adequate communication. For instance, integration of innovative teaching-learning approaches such as CBL should go together with university-internal processes to develop a clear definition of CBL based on latest research as well as arriving at a university-internal consensus

on CBL and its characteristics. This also includes the right framing to make all university actors understand the rationale behind the need for integrating pedagogies such as CBL and to highlight past university developments this builds on. With a clear definition and the right framing, objectives for further CBL development can be set in the university's strategy and implementation plan.

### **CBL@WUR: Defining what CBL@WUR means**

At WUR Wageningen University & Research in the Netherlands, a project team was formed to “look inwards and investigate what CBL@WUR means” to help with university-internal policy making on CBL. The main project objective was to arrive at a definition of CBL in the WUR context by investigating how stakeholders at the university perceive CBL and the similarities and differences between extra-curricular challenges, intra-curricular challenges, and other educational formats involving teamwork, interdisciplinarity and authenticity. For this purpose, a Delphi panel study was carried out and final results were integrated into the development of a WUR vision on CBL.

More info: [Challenge-Based Learning in Wageningen University & Research \(CBL@WUR\): Defining what CBL@WUR means](#)

### 3.1.2 Allocate resources towards building HEI-internal CBL structures

Integrating and scaling CBL across the university requires allocation of both human and financial resources. For one, dedicated funds should be created to invest in the development and implementation of CBL. This may also involve strategies of charging external partners a fee or obtaining donations to balance the costs of CBL delivery (McKeen et al., 2018). Human resources may be developed by instating a CBL responsible or building team capacity within existing university structures to execute the necessary innovation work. For instance, integration may take place within the HEI's teaching and learning centre, innovation centre, and/or transfer office and can benefit from inter-institutional collaborative efforts. The degree of structural integration ultimately depends on how CBL is tied into the university's vision and strategy and the objectives pursued. Also, the capacity and competencies of existing university infrastructures to support CBL development and scaling will need to be assessed on an individual basis. Institutionalisation and structural integration may be driven by one or several of the following HEI units:

#### ✕ Teaching and learning centre

Teaching and learning centres are key actors within HEIs in supporting educational development and advancing innovation in teaching and learning practices. They act as the main university body for promoting teachers' professional development and students' success. Their importance has been growing to deal with developments relevant to the HEI context such as sustainability, multiculturalism, and inclusion (Capriotti & Locatelli, 2024).

Given the centres' configuration for supporting teacher development and didactic innovation, they are in an ideal position to take on a leading role in university-wide integration and scaling of CBL practices.

#### **CBL at European University Viadrina**

In line with the European University Viadrina's mission as an educational institution, its Centre for Teaching and Learning coordinates university-wide CBL activities, implementing these in line with its education for sustainable development. Next to providing trainings and workshops on CBL, the Centre for Teaching and Learning can be contacted by teachers as well as students to exchange ideas and network on CBL.

More info: [Challenge-Based Learning & Project-oriented Teaching](#)

#### ✕ HEI innovation centre

Academic innovation centres are designed to support collaborative and interdisciplinary learning of academic staff and students towards generating innovation. While some innovation centres' primary aim is to foster innovation through providing faculty with a space to test innovative pedagogical approaches, others yet place more focus on connecting

students and faculty with surrounding industries (Tannebaum, 2021). Hence, innovation centres can take on a crucial role in providing space with suitable design features for students to engage in CBL formats and bridge academic learning and real-world practical application (Toplu & Toplu, 2024).



### **TU/e Innovation Space CBL Toolkit**

The TU/e Innovation Space is the “center of expertise for Challenge-Based Learning and student entrepreneurship” at TU/e Eindhoven University of Technology and aims to support implementation of TU/e’s educational vision on CBL. It does so by functioning as a learning hub for education innovation and providing a space for students, researchers, industry and societal organisations to develop solutions to real-world challenges. The innovation space’s education designers have developed an evolving CBL Toolkit to support TU/e teachers in developing a CBL course or in redesigning their curricula towards CBL integration. The toolkit provides inspiring teacher stories and experiences and introduces methods, tools, and best practices for transforming curricula.

More info: [TU/e Innovation Space](#), [TU/e Innovation Space CBL Toolkit](#)

### **✕ HEI technology transfer office**

Technology transfer offices are units responsible for coordinating mechanisms of knowledge and technology transfer at universities and promoting university-industry relations. They emerged as the traditional academic missions of the university in teaching and research developed to include a third mission in entrepreneurship and innovation. While technology transfer offices focus on commercialisation of research, they also provide further services such as entrepreneurship training, spin-out support and/or industry outreach programmes (Therin, Appio, & Yoon, 2019). In case intellectual property (IP) is generated in CBL formats, transfer offices may facilitate between students, teachers, and industry partners to support technology transfer and deal-making and provide legal advice. In fact, it is important for technology transfer offices to rethink and adapt their roles to also encompass the management of student-business co-innovation activities (European Commission et al., 2018).



### **Technology Transfer Services at the Politecnico di Torino**

Since 2015/16, the internal technology transfer services offered at Politecnico di Torino include programmes for student entrepreneurship and actively foster CBL, for example by supporting innovative formats such as [Challenge@PoliTo](#).

More Info: [TT services at PoliTo](#)

The aforementioned university structures present suitable spaces for creating an environment in which institutionalisation and scaling of the CBL pedagogy can take place through experimentation with a variety of CBL formats, including student-business co-innovation challenges. Beyond integration within existing infrastructures, setting up a separate university unit specialised in CBL may be a viable option that can also complement or build on activities carried out by the teaching and learning centres, innovation centres, and/or technology transfer offices. This requires allocation of adequate financial resources. The example of WUR Student Challenges at WUR Wageningen University & Research

highlighted below demonstrates how dedicated university funds have helped establish a university-internal unit with a set team dedicated to organisation of international CBL formats. It may be viewed as the culmination of a general quest for innovation in teaching and learning, reflected in other activities carried out at WUR such as projects of the Education and Learning Sciences Group on “boundary-crossing as modus operandi at WUR”. These complementary and interrelated developments speak for a strong university culture of innovative education.



#### **WUR Student Challenges at WUR Wageningen University & Research**

WUR Student Challenges at Wageningen University & Research is a unit with a team of five people, specialised in organising extra-curricular international challenge-based student competitions. The unit is situated at Education & Student Affairs (ESA), running under the subdivision of the Dean & Managers Office. Funding is provided through a university-internal and -external partner network, including the University Fund Wageningen, Friends of University Fund Wageningen, and Wageningen Ambassadors.

More info: [WUR Student Challenges](#)

Important to highlight is that as HEIs allocate resources for institutionalisation of innovative teaching and learning approaches such as CBL, they are encouraged to reinforce communicative principles and practices in line with team learning in a learning organisation (Viera Trevisan et al., 2024). This means going about experimentation and prototyping of new educational approaches such as CBL transparently, sharing both positive and “negative” results and lessons learnt.

Besides, it is important to keep key target groups, including teachers and students, in the loop and ensure their continuous engagement, for example through feedback mechanisms. Sharing stories of success but also failures early on and on a regular basis will increase the learning curve for students and implementors.

### 3.1.3 Develop impact management structures and practices

To systematise learning in the process of experimenting with and upscaling innovative teaching and learning approaches such as CBL, it is recommended to dedicate people and infrastructures to the evaluation and impact management of CBL formats. This means extending current practices of evaluation to assess outcome (effects of CBL formats and programmes on students, the innovation project and business partners) and impact (system effects on innovation, markets, society, and the natural environment). For university and transfer management, this presents benefits such as enabling internal as well as cross-university benchmarking to learn from different formats and/or other universities. Besides, it helps to generate

data on the transfer effects of CBL teaching activities which may also be used for university and sustainability reporting. Impact management also supports university teachers in improving their formats and teaching processes through evidence-based learning (Fichter & Seela, 2024). For more information, download the guidelines [“From Output to Impact in Entrepreneurship and Sustainability Education”](#) developed in the Challenge4Impact project. The manual provides an insight into methodological principles of teaching-related impact management in the context of student-business challenges and helps teachers and education and transfer managers set up their own impact management system.

#### **Wi-Ko-nova project at University of Oldenburg: Impact monitoring of co-innovation processes between students and companies**

Carl von Ossietzky University of Oldenburg and TolaData GmbH have received a joint innovation grant from the German Federal Ministry of Education and Research for its partnership project “Wi-Ko-nova: Impact monitoring of co-innovation processes between students and companies: Development and testing of measurement concepts and target group-oriented software tools”. The project will focus on developing digital tools for impact monitoring and learning within challenge-based learning frameworks which will be made available by 2025/2026. The awarded grant is part of the national DATI pilot initiative, which aims to foster innovation in solving societal challenges.

More info: [TolaData, Uni Oldenburg Win German Innovation Grant for Pioneering Partnership, University of Oldenburg - Innovation](#)



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## 3.2 BUILD REGIONAL CAPACITY

HEIs may move beyond their institutional boundaries to develop **cross-organisational institutional arrangements** that can effectively support and scale CBL and co-innovation processes between students and business. As Boselie notes, “the legitimacy of transformations requires coalitions of the willing and therefore strategic alliances on different levels” (2024, p.161).

### 3.2.1 Build regional alliances to advance CBL

The institutionalisation of innovative pedagogies and transdisciplinary learning approaches may come with challenges such as “addressing knowledge gaps among teaching staff, securing resources to facilitate extensive collaboration, and overcoming rigid institutional structures that tend to compartmentalise knowledge and prescribed fixed roles for teachers,

students, researchers, and external partners” (Viera Trevisan et al., 2024, p.7). Initiating and building alliances centred around CBL with partners from the region presents a good opportunity to move beyond institutional boundaries and receive impetus for new perspectives, learning experiences, and critical reflection. Regional structures such as regional

development offices, networks, incubators, or science parks can be considered important for both content development and design of co-innovation formats as well as for related matchmaking processes. However, it is advisable to consider the importance of people over infrastructures for network building and expansion of

expertise and institutional competencies. Hereby, HEIs can build on their roles of promoting regional activities through entrepreneurialism (entrepreneurial university) as well as participating formally and informally in networks and collective action (engaged university) (Radinger-Peer, Pflitsch, Kanning, & Schiller, 2021).

### **Linköping University x Almi East Sweden AB**

Together with Almi East Sweden AB, a subsidiary of the state-owned business developer and financial intermediary Almi Företagspartner i Östergötland AB, Linköping University in Sweden offers students the one-semester challenge-based InGenious project course. Almi East Sweden AB and Linköping University benefit from synergies in their strategic partnership, complementing each other's resources and strengths to achieve impact in the educational system as well as the wider Östergötland region. While the university is responsible for course design and delivery, the regional partner uses its extensive network to coordinate the recruitment of and communication with business partners.

More info: [InGenious course](#)



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### 3.2.2 Build national HEI partnerships around CBL

CBL-based university alliances and other comparable academic cooperation structures have the potential to scale the student-business co-innovation approach at national levels. This provides an array of benefits, ranging from bundling of resources, expertise, and facilities, and increased visibility to creating multiple learning paths of relevance for students

and teachers across HEIs. In addition, CBL understandings and experiences can be shared among HEI staff to inspire concept development within the own HEI and build a deeper CBL understanding at a strategic level. Ultimately, this helps to advance an educational innovation culture at national level.



#### National CBL-based alliances in the Netherlands

In 2019, the four Dutch HEIs TU/e Eindhoven University of Technology, WUR Wageningen University & Research, UU Utrecht University and UMC University Medical Centre Utrecht formed an alliance to encourage students and researchers to collaborate in open and multi-disciplinary environments to solve wicked problems. Centred around the motto “Challenging future generations”, the **EWUU alliance** encourages students and teachers to co-create solutions to challenges related to themes such as health, food, energy, and circular society. The alliance actively applies teaching and learning approaches such as CBL and has developed a vision on CBL as well as a common strategy for 2021-2027.

More info: [EWUU](#), [EWUU Vision on CBL](#)

**4TU.Federation**, an alliance of the four universities of technology in the Netherlands, works to ensure that engineers and technological designers are well-trained to tackle social challenges and to foster collaboration between research, industry and public organisations. For instance, the CBL-based alliance carries out the annual 4TU Impact Challenge to provide an additional entrepreneurship platform for innovations co-created by students and external partners.

More info: [4TU.Federation](#)

## 3.3 BUILD INTERNATIONAL CAPACITY

### 3.3.1 Develop knowledge and skills for internationalisation of student-business challenges

Internationalisation has the potential to contribute to solving societal challenges. Digitalisation and international student mobility and exchange both act as enablers for the internationalisation of challenge-based student-business co-innovation (Eldebo & Hjelm, 2024). As teachers and education and transfer managers look to upscale student-business challenge formats internationally and develop respective internationalisation strategies, they may consider different forms of internationalisation (Mittelmeier, Rienties, Gunter, & Raghuram, 2021):

#### ✕ Internationalisation at Home (IaH)

IaH refers to integrating international dimensions into the curriculum and providing international learning experiences within domestic environments. Students hence receive the opportunity to engage in internationalisation without moving abroad. In the last years, the concept of IaH has converged with the concept of internationalisation of the curriculum (Brandenburg, de Wit, Jones, Leask, & Drobner, 2020), referring to the (re-)design of curricular contents, learning outcomes, assessments, teaching approaches and support services to include international and intercultural dimensions (Leask, 2015).

#### ➔ **Relevance for student-business**

**challenge formats:** IaH of student-business challenges may mean participation of international students and integration of

their experiences and perspectives into challenge formats. Due to different cultural backgrounds, engaging domestic with international students will require teachers' special attention, especially when it comes to overseeing teamwork processes. It may also refer to collaboration with local cultural, ethnic or religious communities in the frame of the challenge. Further, local challenge owners may set their cases to markets around the world.

#### ✕ Internationalisation Abroad (IA)

IA refers to students relocating geographically (across borders) for the purposes of their studies.

#### ➔ **Relevance for student-business**

**challenge formats:** While not as common yet, CBL formats may be designed as blended learning programmes, including elements at the home university complemented by on-site elements at other universities abroad which involve student (and teacher) mobility. Teachers and education managers will need to pay special attention to funding opportunities for students to cover expenses for travel and accommodation.

## ✕ Internationalisation at a Distance (IaD)

IaD refers to education delivered across borders with the support of technologies, often involving HEIs from several countries which enter a partnership to allow for international mobility of knowledge and ideas (instead of students themselves).

➔ **Relevance for student-business challenge formats:** Internationalisation of student-business challenges may include technology-enabled virtual mobility of challenge participants, whether students, teachers or challenge owners from other parts of the world. Ideally, teachers interested in internationalising their challenge formats are supported by comprehensive internationalisation efforts and policies at HEI level.



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### **Handbook for Codesigning Student-Business Sustainability Challenges: Setup, Digitalization, and Internationalization**

The handbook developed in the Challenge4Impact project shares experiences of arranging educational approaches with real-life problems, with a focus on international collaboration and suggests how to make use of the growing number of digital tools for developing students' knowledge and skills. HEI teachers, but also transfer managers and collaboration partners in challenge formats such as businesses receive knowledge and skills to either transform existing courses to a more international and digital format, or to start completely new courses which equip students with the knowledge and skills to tackle societal challenges in an international world.

More info: [Eldebo, K. & Hjelm, O. \(2024\). Handbook for Co-designing Student-Business Sustainability Challenges: Setup, Digitalization, and Internationalization. Linköping: Linköping University.](#)

### 3.3.2 Build international alliances around CBL

Entrepreneurial HEIs are characterised by taking international perspectives and ecosystem thinking (HEInnovate, 2024). In a globalised and interconnected world braced by continuous advances in information and communication technologies, engaging in various forms of cross-border dialogue and action makes up an important element for promoting peer learning and learning from good practice. This can help to gradually upscale innovative teaching and learning formats such as student-business challenges.

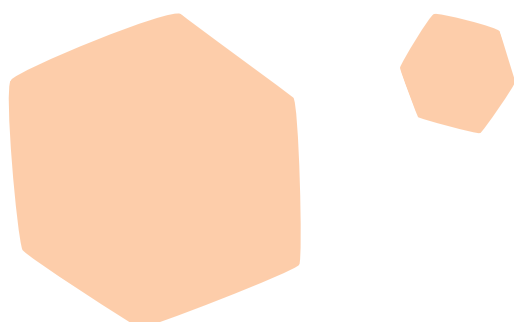
HEIs may build on already existing internationalisation strategies and international university partnerships to further the exchange of ideas and concepts and build new expertise and structures on CBL and student-business co-innovation. As the university-internal hub for coordination

of international activities, the HEI's international office can be approached to receive information and support in creating international alliances and learning opportunities and identifying suitable funding opportunities for international projects. This may also involve the cross-border development of teacher training and staff development programmes. Active participation in international collaboration projects can contribute to stimulating a culture of pedagogical innovation and a mindset shift towards integration and adaptation of innovative teaching and learning approaches at HEIs, for instance through using the power of example and good practice to demonstrate the benefits of student-business co-innovation.

#### **Cooperation Partnerships**

At the European level, a range of transnational projects are being carried out in the frame of the EU funding programme “Erasmus+ Cooperation Partnerships”. The programme presents a good example of an enabler of international cooperation to develop new innovative practices in teaching and learning and reinforce networks of partners.

More info: [Erasmus+ Cooperation Partnerships](#), [Erasmus+ Project Results](#)





To promote exchange of experiences, HEIs may build structures such as international communities of practice to come together to share information and experiences and engage in dialogue and collaboration in the common area of interest. Hereby, the creation of digital spaces for participants to have a “home” for the experience plays an important role (Adams et al., 2023). As stipulated in the Communities of Practice Success Wheel, eight success factors may be considered for such communities to thrive and succeed (Joint Research Centre (European Commission), Williquet, Szkola, Catana, & Debremaeker, 2021):

- ✘ **Vision:** Define the mission and goals of the community.
- ✘ **Governance:** Set decision-making rules that lead to co-ownership.
- ✘ **Leadership:** Form leadership from within the community as well as senior and middle management.
- ✘ **Convening:** Connect and engage community members in meaningful ways.
- ✘ **Collaboration/cooperation:** Work towards achieving set community deliverables.
- ✘ **Community management:** Facilitate synchronous and asynchronous elements of the community process.
- ✘ **User experience:** Adapt community practices and tools continuously based on member needs.
- ✘ **Measurement:** Assess community dynamics and check achievement of objectives.

### **ECIU University Community of Practice**

ECIU University is an alliance of 14 HEIs across Europe as well as the Tecnológico de Monterrey in Mexico. It enables learners, academic staff, and researchers to work together with businesses, but also NGOs and municipalities, to solve real-life challenges, focusing especially on solutions contributing to SDG 11 – Sustainable Cities and Communities. Currently, it hosts a community of practice specifically designed for experienced teachers in CBL and micro-modules to share their expertise on educational innovation and internationalisation.

More info: [ECIU University](#), [ECIU University Community of Practice](#)

### 3.3.3 Work with professional intermediaries who provide specialised support services

As the European Commission puts forth in its “Recommendation on a Code of Practice on industry-academia co-creation for knowledge valorisation”, international collaboration between industry and academia is key to developing innovative products, services, and technologies that address grand societal challenges such as enabling fair green and digital transitions. It also appraises the importance of involving intermediaries for management of sustainable long-term industry-academia co-creation and highlights the role of intermediaries who can provide support in communication, mediation, understanding working relationships, developing partnership frameworks as well as

supervision of multi-stakeholder co-creation spaces such as platforms (European Commission, 2024). While HEI-internal structures may also take on intermediary roles, a range of public and private sector providers have emerged to offer specialised support for designing, implementing and evaluating student-business challenges in sustainable entrepreneurship. Several actors focus on supporting collaborative innovation at an international level and leverage technology to develop platform solutions to ease the resource-intensity of experiential learning programmes (McKeen et al., 2018).



#### **Support Services for Student-Business Challenges in Sustainable Entrepreneurship**

When scaling CBL formats, organisational efforts and transaction costs needed for their implementation may increase. To better deal with this, some actors such as private companies, initiatives, and networks offer professional support services. The Challenge4Impact project has synthesised the results of its research on these actors and their intermediary activities and presents eight good-practice examples in the brochure “Support Services for Student-Business Collaboration: Good Practice-Collection of Support Services for Challenge-Based Student-Business Collaboration in Sustainable Entrepreneurship”.

More info: [Widrat, A., Fichter, K. \(2023\) Support Services for Student-Business Challenges in Sustainable Entrepreneurship. Oldenburg: Carl von Ossietzky University of Oldenburg.](#)

## 4 CONCLUSION AND OUTLOOK

To institutionalise and upscale experiential learning practices and formats such as student-business co-innovation, HEIs do not need to reinvent the wheel. Instead, it is important to focus on innovative formats and pilot programmes in higher education which have proven successful, learn from good practice, and determine how enabling conditions within existing HEI structures can be created to scale them up across university departments. This certainly involves institutional leaders with a clear vision and a willingness for transformation at all institutional levels and academic as well as non-academic staff who act as “champions”, inspire action in others and are open to multi-stakeholder collaboration. Further, it is important to determine how changes in HEI policies, practices, and institutional structures necessary for

instating innovative learning and teaching practices and formats can not only be implemented but also sustained in the long term. Hereby, one should on the one hand consider the many contextual and individual factors affecting adoption and adaptation of the CBL approach and student-business co-innovation format to the own HEI setting. On the other hand, one should consider how changes in leadership affect the continuation and institutionalisation of innovative teaching and learning formats. Certainly, collaboration and greater integration across HEI functions lies at the heart of developing support structures to scale CBL formats and with this, the potential to increase impact for student learning, industry learning, and sustainable development.



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