



WP 2

Evaluating leading approaches and tools in collaborative green venturing

14.01.2020, Linköping

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Evaluating leading approaches and tools in collaborative green venturing



Starting Point

- > Eco-Venturing (UOL)
- > Environmentally Driven Business Development (LIU)
- > Fujifilm Future Challenge (VAS)

WP 2 objectives

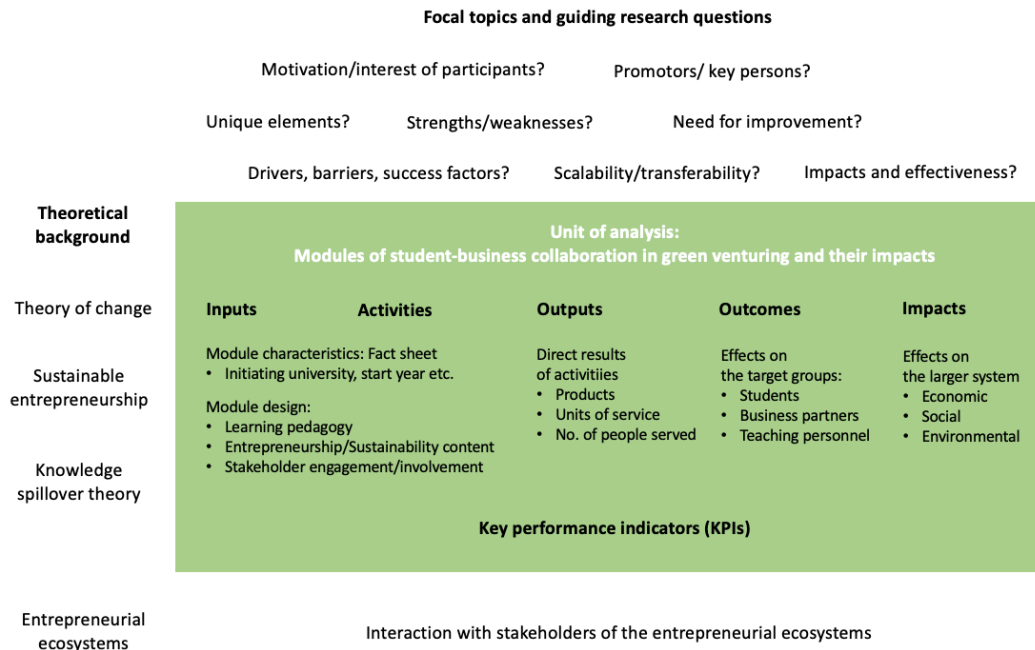
- Developing a **conceptual framework** and **guidelines for the evaluation**
- **Insights** on the effectiveness and impacts **of existing approaches**
- Identification of **unique elements, success factors** and **barriers**
- Identification of **needs to improve** and expand **existing approaches** as basis for WP 3
- Producing **case study reports**



Multi-Case-Study



Conceptual Framework



Multi-Case-Study: Elements

- ✓ **List of the tools and methods** already used in the three modules
- ✓ **Fact sheets** with objectives and characteristics of each module.
- ✓ **Evaluation guidelines**
- ✓ **Semi-structured exploratory interviews with (1) students, (2) lecturers and (3) business partners**
- ✓ **Student survey** (last three cohorts)
- ✓ **Case study evaluation reports** for each module
- **Cross-case evaluation analysis**

Fact sheets for each module



Eco-Venturing (UOL)

Environmentally Driven Business Development (LIU)

Fujifilm Future Challenge (VAS)

- > Module in general
- > Balance involvement between business / student
- > Student involvement per module
- > Business involvement per module
- > Sustainability items covered
- > Personal assessment (qualitative)

Exemplary excerpt

Title of module	Eco-Venturing
Initiating university:	University of Oldenburg
Start year	2009
End year / ongoing	ongoing
No. of modules held	10
Duration (weeks)	1 semester (24 weeks)
ECTS:	6
Module objective(s):	<p>The main target of the "Eco-Venturing" module is to develop entrepreneurial skills for the development and implementation of environmental innovations and sustainable business ideas. These include:</p> <ul style="list-style-type: none">• the ability to identify new solution needs in the context of sustainable development and the sustainable development goals set by the United Nations,• Knowledge and skills for the entrepreneurial development and implementation of innovative solutions,• Knowledge and skills for systematically combining economic (Economical) and ecological (Ecological) objectives and• the ability to strategically develop "green" business areas and markets. <p>The entrepreneurial development and implementation of environmental innovations can relate both to the establishment of new companies (start-ups) and organisations and to the development of new solutions and business ideas within the framework of established companies and organisations (corporate venturing).</p>



Interviews with students, lecturers and business partners

General Questions

- > Role and function of the interviewees, importance of sustainability and entrepreneurship...

Motivation and interest

- > Interest in sustainability, entrepreneurship, expectations, reasons for participation...

Experiences and competencies before

- > Content/ former knowledge that was helpful for the project...

The activities

- > Methods/ tools, support, challenges...

Assessing the module

- > Strengths and weaknesses, scalability to other HEIs...

Outputs and outcomes

- > Change of attitude towards innovation, sustainability, entrepreneurship, influence on career...

Impacts

- > Contribution to the Sustainable Development Goals...



For each module, 4 to 6 exploratory interviews were conducted.
The interviews serve as basis for the evaluation and for the student survey.

Insights from the interviews with Students, Lecturers and Business Partners



	Students	Lecturers	Business Partners (UOL and VAS)
Motivation and interest	<ul style="list-style-type: none"> ▪ Interest in a high level of theory/ practice transfer ▪ Interest in sustainability, innovation and entrepreneurship topics ▪ Interest in new cooperation-formats with companies and start-ups ▪ Module is part of the curriculum 	<ul style="list-style-type: none"> ▪ Promote cooperation between students and business ▪ Motivate students to combine sustainability and entrepreneurship issues in a new way ▪ Familiarise students with the challenges of sustainable entrepreneurship and business model development as close to reality as possible 	<ul style="list-style-type: none"> ▪ Student support is appreciated ▪ Students open up new perspectives for the business partners and bring in other competences in the project ▪ Reflect strategies and ideas with students ▪ Out of the box/ unconventional thinking by students

Insights refer to all modules

Insights from the interviews with Students, Lecturers and Business Partners



	Students	Lecturers	Business Partners (UOL and VAS)
Biggest Challenge	<ul style="list-style-type: none"> ▪ Time and project management, team work ▪ Different expectations of business partners and lecturers ▪ Selection of the “best” approach, tool or method ▪ Selecting business ideas, models and solutions ▪ Identification with the project idea 	<ul style="list-style-type: none"> ▪ Conveying a lot of content in a limited time ▪ Different expectations of students and business partners ▪ Linking practical orientation and scientific standards ▪ Integration of more sustainability-oriented tools ▪ Challenges for students: <ul style="list-style-type: none"> ▪ Time management ▪ Find solutions or strategies that are really helpful for the business partners ▪ Idea generation must be realistic and innovative ▪ Competences and skills in the field of sustainability are heterogeneous 	<ul style="list-style-type: none"> ▪ Development of a concrete and solvable task for the students ▪ Remain open to questions, ideas and solutions provided by students ▪ In some cases lecturers do not support students sufficiently ▪ Translate technology and business know-how into simpler terms that can be understood by all students

Insights from the interviews with Students, Lecturers and Business Partners



	Students	Lecturers	Business Partners (UOL and VAS)
Assessing the module	<ul style="list-style-type: none"> ▪ Strengths: e.g. strong practical relevance, work on (existing) business models, promotion of teamwork ▪ Weaknesses: e.g. time management, integration of sustainability-related tools and methods, matching of the competencies in the individual project teams, high workload, more focus on practical implementation 	<ul style="list-style-type: none"> ▪ Strengths: e.g. combination of students' new perspectives with the experiences of established or newly founded businesses, module could give an additional motivation for starting a business ▪ Weaknesses: par time character of the modules – students have other tasks/ modules, matching process for the student teams could be improved, overview of tools and methods, integration of sustainability-oriented tools and methods 	<ul style="list-style-type: none"> ▪ Strengths: e.g. students teams are highly motivated, some student teams would even work like a new team in the company/ start-up, great degree of openness by lecturers and students ▪ Weaknesses: Practical an analytical students are not often in the same team, in some modules there is a trade-off between competition among the student teams and the learning processes

Student Survey (last three cohorts)



> **Response rate**

- > Eco-Venturing: 50 students of which 14 responded (28%)
 - > Environmentally Driven Business Development: 75 students of which 25 responded (33%)
 - > Fujifilm Future Challenge: 132 students of which 12 responded (9%)
- > Most feedback was given by students who had just attended the respective module

> **Key issues**

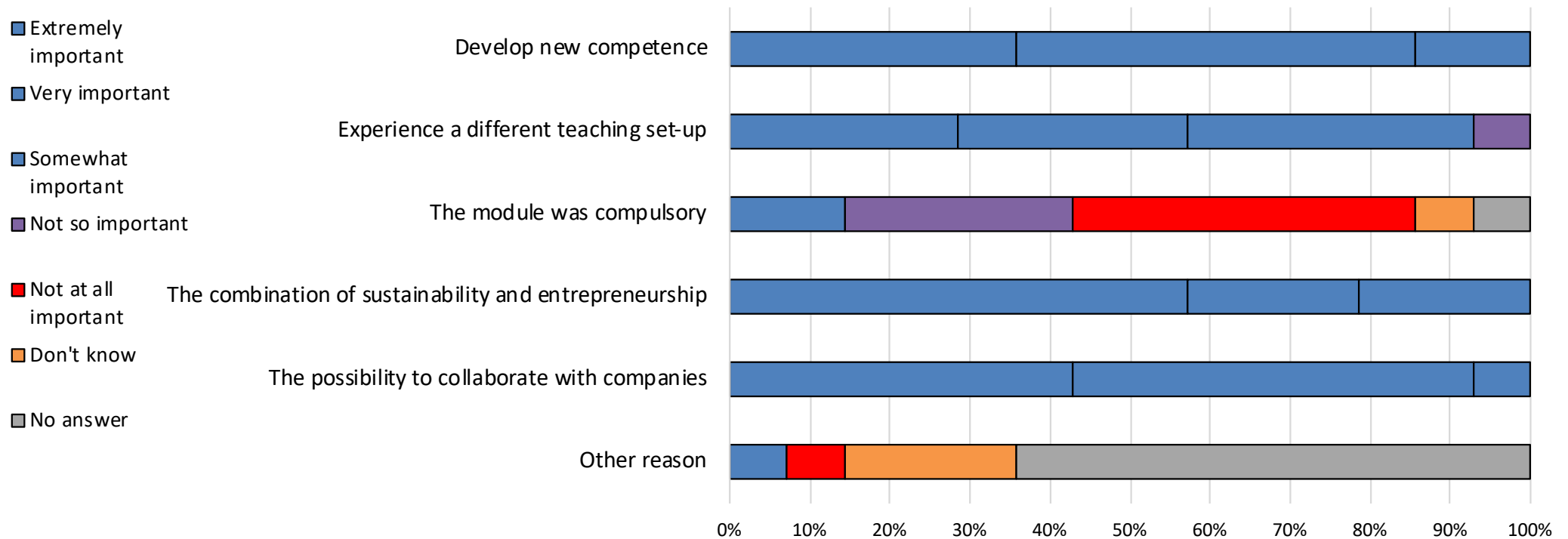
- > Characterization of the responding students
- > Motivation and interest
- > Background to project work on developing business ideas
- > Assessing the module
- > Outcomes
- > Impacts
- > Suggested improvements



Student Survey: Motivation and interest: Eco-Venturing Case



Why did you participate in the module?



14 students responded to the survey (response rate 28%), 2018 (8 students), 2017 (5) and 2016 (1)

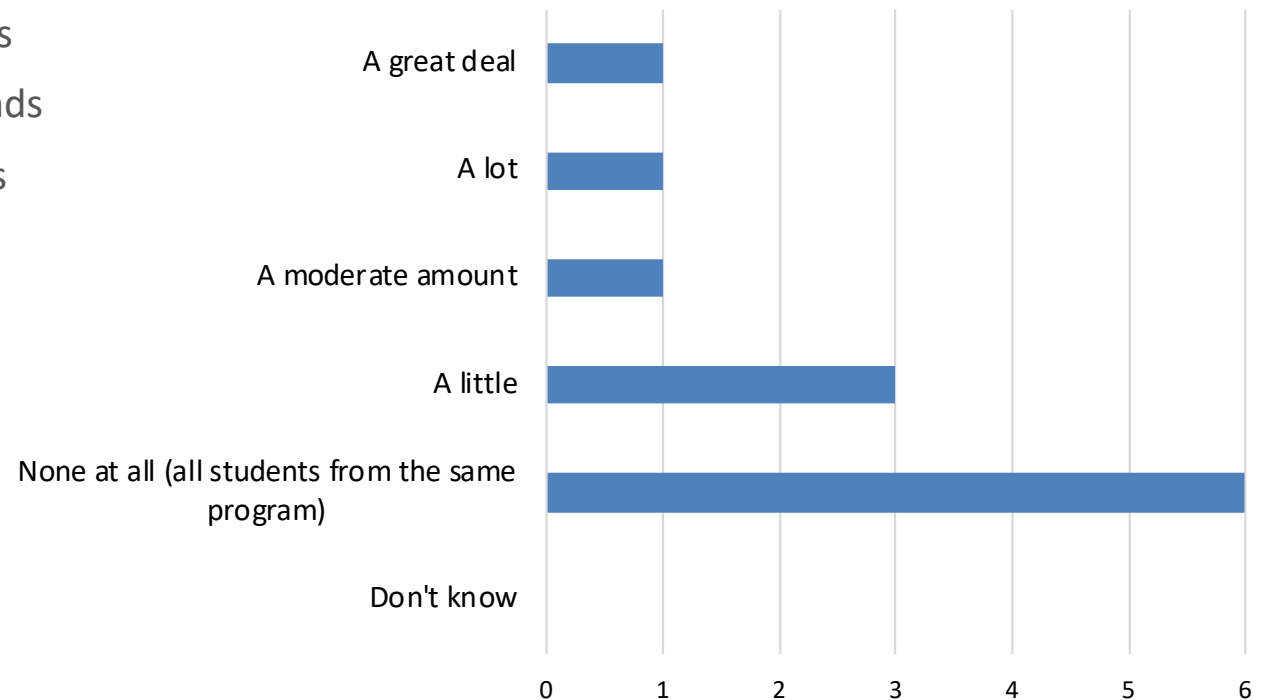
Student Survey: Background to project work on developing business ideas



All modules

- > Size of project groups: 3-6 students
- > Diversity of educational backgrounds could be improved –student teams often consist of students from the same program

How was the diversity in educational background in your project group? (Fujifilm-Case)

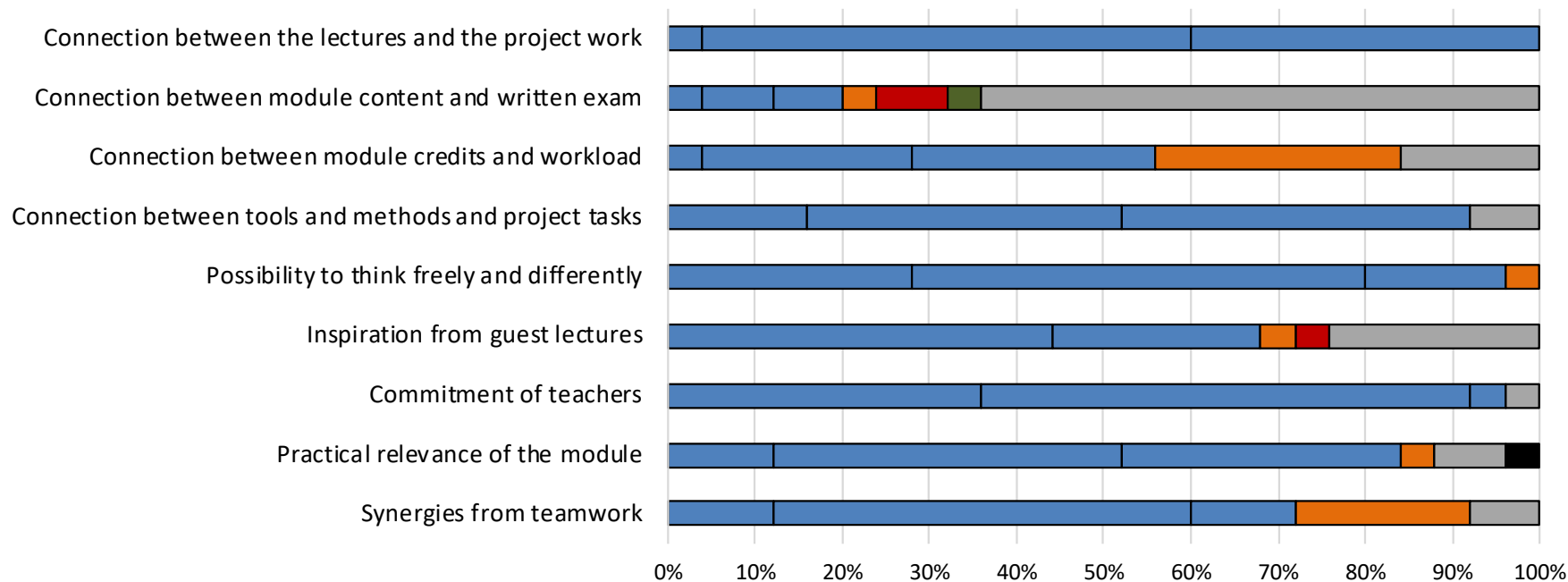


12 students responded to the survey (response rate of 9%), 2018 (9 students), 2017 (3).
The participating students come from a range of programs.

Student Survey: Assessing the module - Environmentally Driven Business Development Case



Respond to the following statements in connection to the module



A statement is a strength if > 50% of the students answered extremely/ very/ somewhat high.
A statement is a weakness if <50% answered.

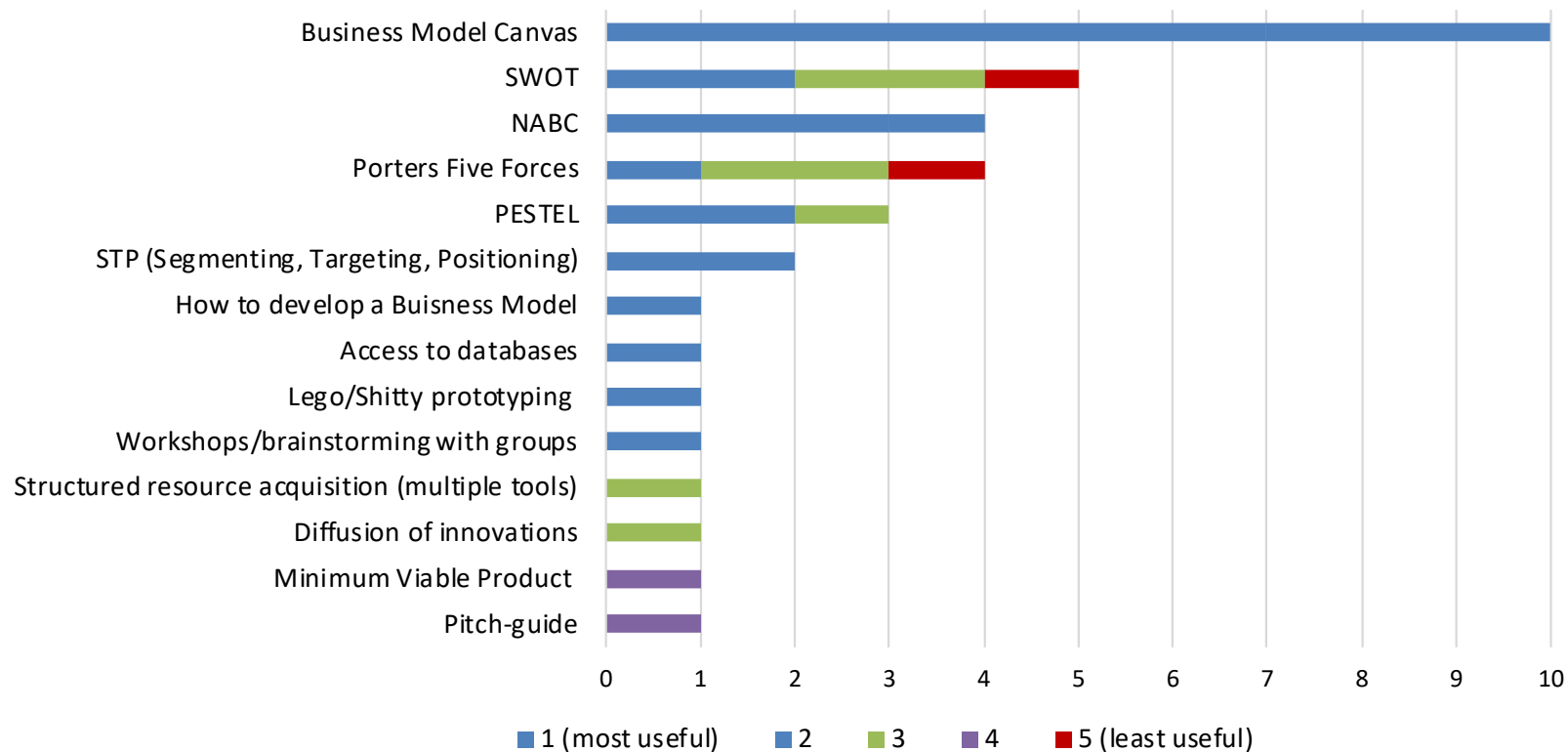
■ Extremely high ■ Very high ■ Somewhat high ■ Not so high ■ Not at all high ■ Not relevant ■ Don't know ■ No answer

25 students responded to the survey (response rate of 33%), 2018 (13 students), 2017 (7) and 2016 (5).

Student Survey: Assessing the module - Environmentally Driven Business Development Case



Which were the most helpful methods and tools that you used in the module?



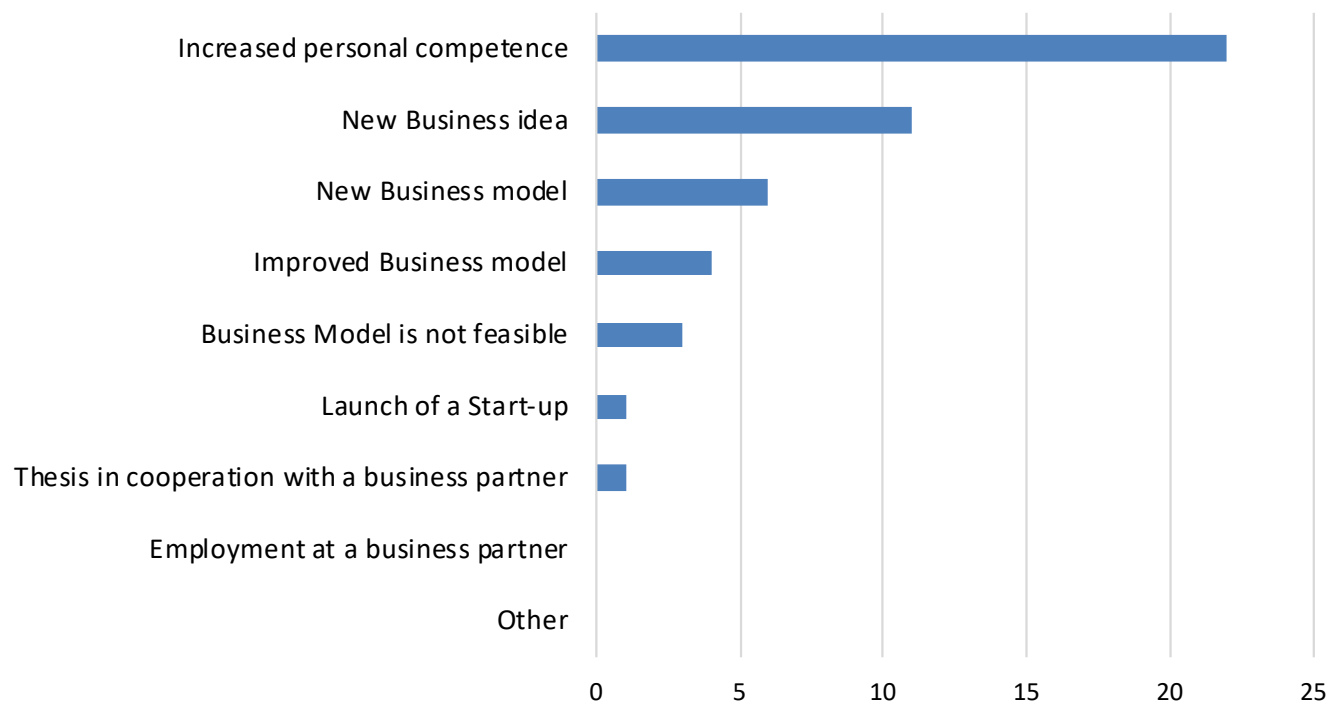
14 were listed by the students, 9 of the 25 students could not remember any method/ tool

25 students responded to the survey (response rate of 33%), 2018 (13 students), 2017 (7) and 2016 (5).

Student Survey: Assessing the module – Eco-Venturing Case



What was the outcome of your project in the module?



A majority of the students (9 out of 14) considered the module important for their study progress as well as for their job choice and career (8 out of 14)

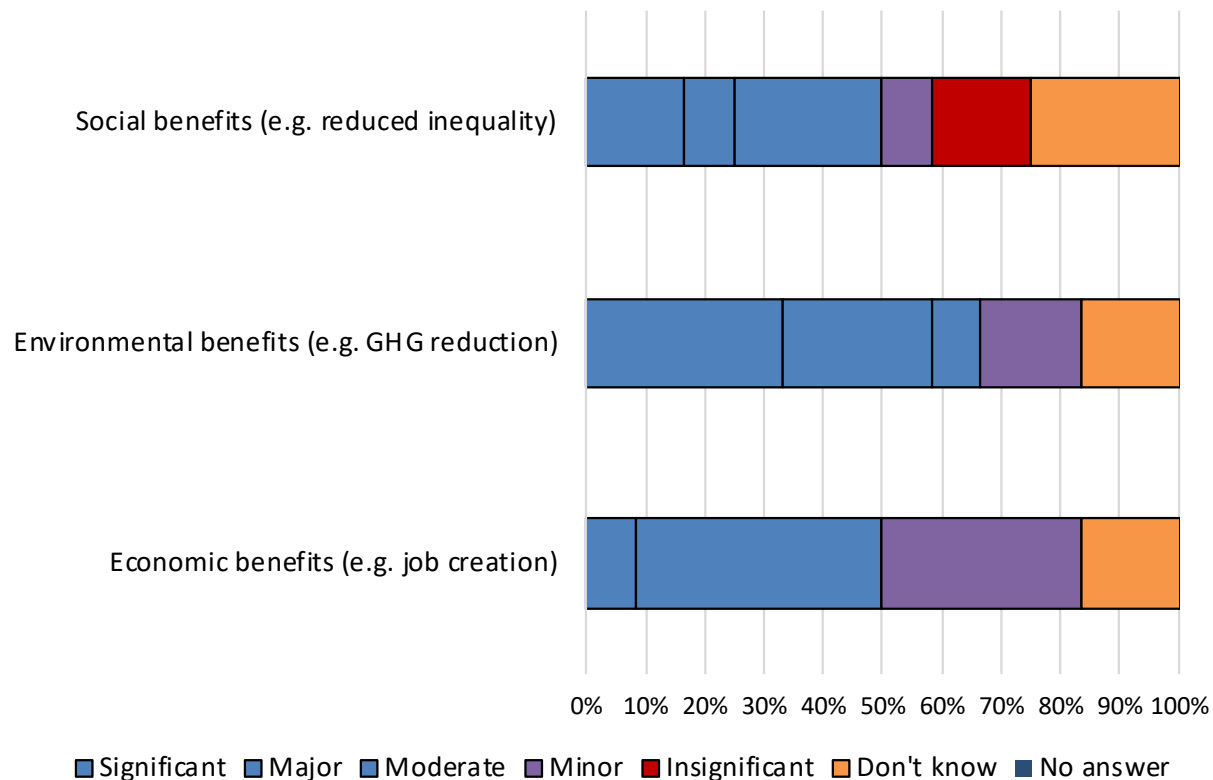
Looking at the results in relation to the business partner 11 out of 14 considered the outcome as very or somewhat important

14 students responded to the survey (response rate 28%), 2018 (8 students), 2017 (5) and 2016 (1)

Student Survey: Impacts - Fujifilm Case



What was the (potential) impact of your project



The (potential) impact of the projects was assessed slightly differently depending on whether social, environmental or economic benefits were taken into account. The ratio between significant and major impacts was higher for environmental impacts than for social and economic impacts.

12 students responded to the survey (response rate of 9%), 2018 (9 students), 2017 (3).

> Practical relevance



Cross-Case insights and learnings from all modules



Key persons and promoters

- > **High expenditure of time for lecturers, students and business partners**

Is the amount of time invested adequate and justified?

- > **Limited resources for long-term provision of the formats**

How can the existing and new modules be maintained after the end of the S4S-project?

- > **High importance of personal commitment**

In all modules the initiators and the other lecturers are the driving forces.

How can the modules be sustained and institutionalised in the long-term?



Cross-Case insights and learnings from all modules



Drivers, barriers and success factors

> The modules focus on the learning process

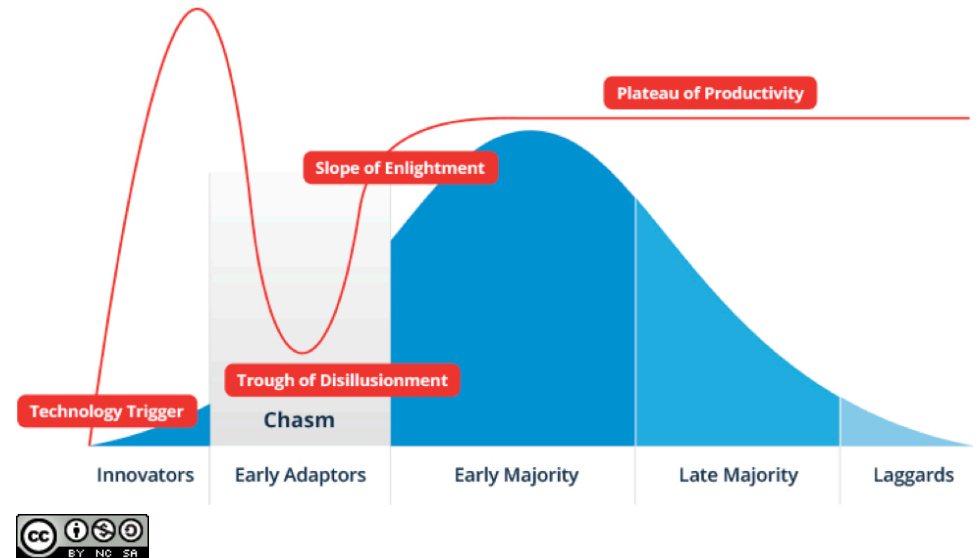
The open setting is a driver to try out different methods with a relative low risk of failure and also to reflect on learning experiences. But it is also a barrier when students assume that their ideas will most likely not be pursued further.

> Integration into existing curricula

In some cases, new teaching formats are difficult to integrate into existing curricular

> Knowledge barriers

E.g. technology-driven business models can be overwhelming for some students



Cross-Case insights and learnings from all modules



Unique Elements

- > **USP of the modules motivates to participate**

The combination of (sustainability) challenges and topics of ideation and business model development is not yet covered by other modules

- > **Lecturers take on different roles in the modules**

Interdisciplinary teams have an expert role when it comes to scientific backgrounds and the introduction of tools and methods in the areas of sustainability and entrepreneurship. Lecturers also act as coaches who support the student-teams with their different experiences and competences.





Cross-Case insights and learnings from all modules

Need for improvement

> Student teams - matching process

Which competences and skills should be present in the teams? How can such skills and competencies be identified and how can the matching process be organised?

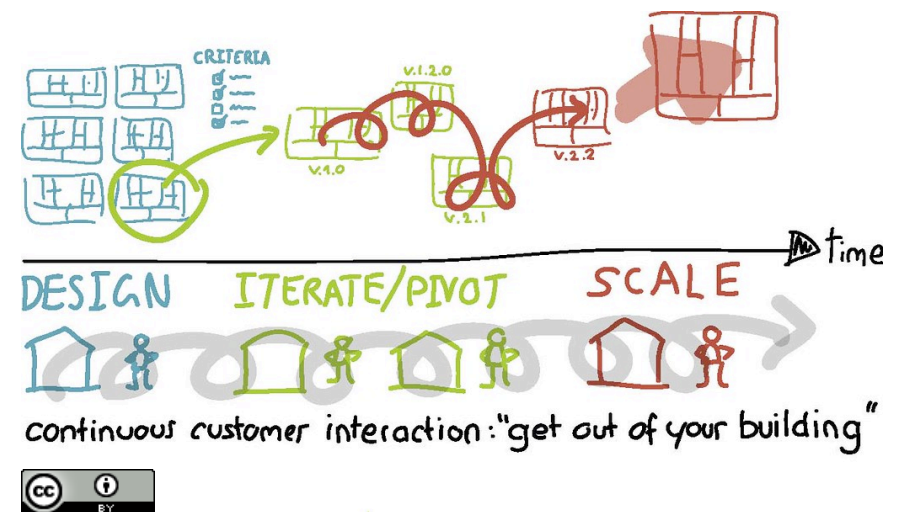
> Students are sometimes challenged by the variety of tools, methods and approaches

What are appropriate teaching and learning materials?

Transferability and scalability

It is possible to upscale and transfer the modules in terms of involving more/other business partners, students,

Transfer to other universities and/or other countries.





Cross-Case insights and learnings from all modules

Outcomes and impacts

> Long-term impact research

The impact of the modules on the students' careers and on the business ideas/ models has not yet been examined: long-term analysis as a new field of research.



Agnostic	Avoid harm	Want good	Get facts	Explain why	Assess effects	Interpret meaning
Do not consider impact	Know what you do not want	Know what you do want	Describe what happens by enumerating outputs	Understand why outputs happen based upon specific inputs and actions	Enumerate the intended effects of actions on stakeholders	Enumerate positive and negative outcomes, intended and unintended, assess change over time

Richter,K.(2019).Impact Management for Everyone: <http://www.im4e.org/>