Co-creation: Student-business-collaboration in green venturing,

Virtual ISPIM
June, 10, 2020

Facilitators: Frans Stel, Klaus Fichter & Olof Hjelm
Technical support: Rogier de Jong

WELCOME

Co-funded by the
Erasmus+ Programme
of the European Union

Before we start …

The session will be recorded

Please mute your microphone **but** keep your video on

Questions / suggestions: YES please! Use the public chat facility

We discuss all chats in the 2nd part of the workshop (breakout sessions and wrap-up)

Slides will be shared at https://www.scaleup4sustainability.eu

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Workshop program

9:50 Welcome – Who is who - program introduction

10:00 – 10:20 **Example: The Fujifilm Challenge**
- Drivers – success factors - barriers – (Frans Stel)
- Business perspective (Michiel de Hair – Manager Open Innovation Hub Fujifilm)
- Students perspective (Matthijs Bookelmans, former student)
- Academia (Frans Stel – evaluation, do personality traits matter?)

10:20 – 10:40 **Experiences of international green venturing projects**
- Key learnings (Klaus Fichter, University of Oldenburg, Germany)
- Methods and tools (Olof Hjelm, Linköping University, Sweden)

10:40 – 10:45 **Coffee break**

10:45 – 11:30 **Exchange of experiences in sub groups - virtual 'break out' rooms**
- 4 questions - mentimeter
- discussion

11:30 – 11:50 **Plenary discussion based on sub groups – wrap up**

The Fujifilm Challenge

What	10 week program of ideation and validation of sustainable business models
Who	Since 2016, 150 students, 1 high-tech company Background: mainly bachelor & business Nationality: 54% Dutch, 23% Belgian, 23% other Gender: 41% male, 59% female; age 21.5 yrs.
What's new	Learning community, co-opetition, research-based
Output	29 new business models
Sustainability	Waste reduction, reduction of raw materials, climate change, health, biodiversity
Upscaling	Possible and desired: mainly virtual and team initiative

The Fujifilm Challenge

Drivers	Motivation to solve large societal problems
Enablers	Open communication culture, access to Fujifilm R&D, coaches
Barriers	'Fuzzy' front end of innovation, time, educational schemes, NIH
Success factors	Initiative, perseverance, team dynamics, contact with real customers, midterm session, 1 week Barcelona (?)

Program concept

3 plenary sessions:
- kick-off (creativity), midterm (entrepreneurship, CD), endgame

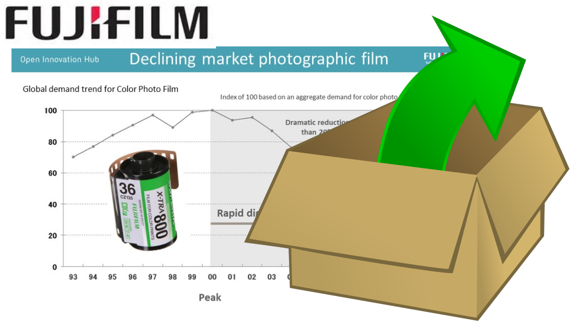
Team manage their own projects - coaches assist

Assessment team performance:
- Professional jury (incentive), peer reviews (research)

Crossing the Bridge

Science
Technology

Business



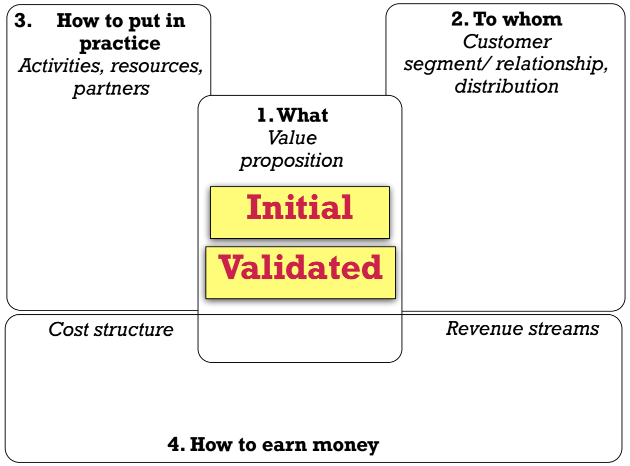
Aims

1. Sustainability in practice
2. Learning community on International Entrepreneurship
3. Co-creation between industry and academia
4. Personality & performance research

Criteria

1. Novel
2. Economic Feasible
3. Technical Viable, FF technology
4. Sustainable

Business Model



3. How to put in practice
Activities, resources, partners

2. To whom
Customer segment/ relationship, distribution

1. What
Value proposition

Initial

Validated

Cost structure

Revenue streams

4. How to earn money

Participants

from many different educational programs

avans
University of Applied Science

TU/e Technische Universiteit Eindhoven University of Technology
Where innovation starts

TILBURG UNIVERSITY
Understanding Society

THOMAS MORE

KdG Karel de Grote Hogeschool

LEARNING COMMUNITY

21 CENTURY SKILLS

C collaboration	C creativity	C communication	C critical thinking
working together	experimenting with new innovative approaches	sharing thoughts, ideas & solutions	considering problems across disciplines
ALLIANCE GAME	**CREATIVITY GAMES**	**NEGOTIATION GAME**	**CIRCULAR CHALLENGE**
ENVIRONMENTALLY DRIVEN BUSINESS DEVELOPMENT	Scale-up4 Sustainability **FUJIFILM FUTURE CHALLENGE**		**ECO VENTURING**

Source: World Economic Forum, 2018: Future of Jobs

Team Imagination

Business Idea: edible packing

Business perspective

Motivation and interest	To learn new competences, new markets and new ideas, become inspired by new ideas, image: FF branding
Challenge	To stay open for the real problems of the world. Not jumping too quickly to solutions and provide students only with a limited number of options.
Output & outcome	1. Some ideas proposed to the corporate headquarters abroad. 2. Some new insights on new business models 3. To show to colleagues in other countries how and what the European branch is doing;
Impact	1. Short term: FF mission known to stakeholders 2. Window to the world 3. Making students more aware of sustainable technology.
Main eye openers	1. New generation has sustainability drive 2. Diversity matters business / technology

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Student perspective

Motivation and interest	Contribution to world problems backed by corporate Converting ideas into business concept
Challenge	Finding solution high ranking on all 4 aspects Project planning and familiarising with technology
Output & outcome	Awareness of innovation, sustainability, entrepreneurship challenges
Impact	More interested in innovation & (sustainable) entrepreneurship
Main eye openers	Team diversity contributes to the team performance

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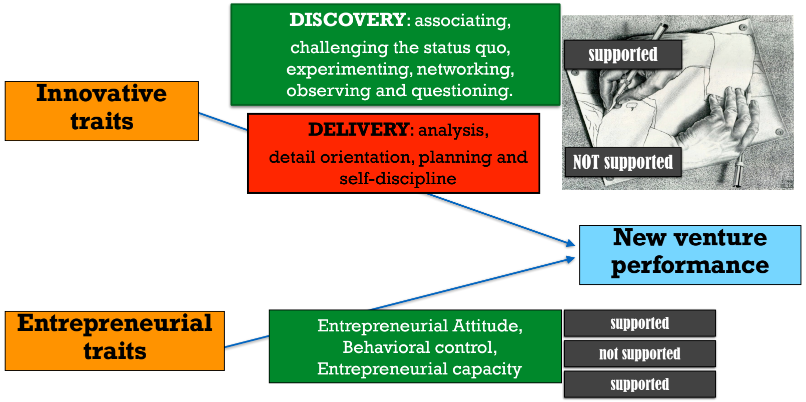
Academic perspective



Innovative traits

DISCOVERY: associating, challenging the status quo, experimenting, networking, observing and questioning.

DELIVERY: analysis, detail orientation, planning and self-discipline

supported

NOT supported

New venture performance

Entrepreneurial traits

Entrepreneurial Attitude,
Behavioral control,
Entrepreneurial capacity

supported

not supported

supported

Dyer, et al, 2008, 2009,
Barbosa, et al., Karabulut, 2016; Kraus et al., 2012, Linan & Chen, 2009,
Mc Gee et al., 2009; Rosique-Blasco et al., 2017.

Experiences of green venturing projects

10:20 – 10:40

- Key learnings (Klaus Fichter)
- Approaches and tools (Olof Hjelm)

Master Module “Eco-Venturing”: Some learnings from the evaluation

Klaus Fichter
Professor of Innovation Management and Sustainability

Carl von Ossietzky University Oldenburg, Germany

Master module „Eco-Venturing“

- Offered since 2009 at the University of Oldenburg, Germany
- Open to students from different master programmes
- Part of the „Eco-Entrepreneurship“ major study course
- Students develop sustainability-oriented business concepts in cooperation with business partners (time frame 5 months)
- Promoting actual business start-ups or starting new business units
- Develop entrepreneurial skills for development and implementation of environmental innovations and sustainable business ideas
- 170 students attended and 50 green business projects since 2009

Some learnings from the evaluation in the S4S project

Outcomes

- Students enjoy hands-on start-up experience and real world learning with business partners
- They get sensitized for the option to start new venture and what it feels to be an entrepreneur
- They learn how develop business ideas with the aim and consideration of sustainability
- Some students join the venture after the module
- We accelerate promising green venture ideas

Challenges

- **Workload for students** is higher than in other modules, too high in relation to 6 credit points
- **Good mix of students** with different disciplinary backgrounds is difficult to get
- **Scaling up is difficult**: our teaching capacity is limited to 1 module per year and 15 to 20 students

Scale-up4 Sustainability

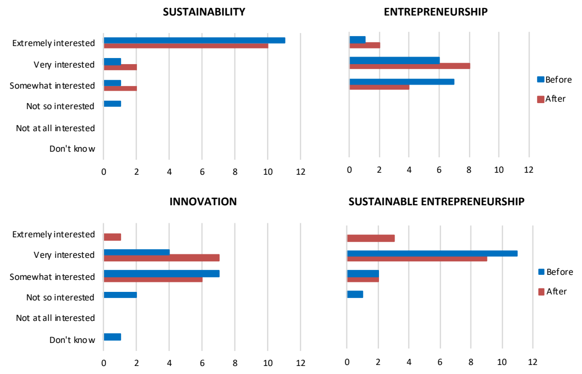
Guidelines for the evaluation of collaborative student-business venturing activities

Klaus Fichter (University of Oldenburg)
Karsten Hurrelmann (University of Oldenburg)
Anne Seela (University of Oldenburg)
Olof Hjelm (Linköping University)
Madeleine Larsson (Linköping University)
Carina Sundberg (Linköping University)
Wisdom Kanda (Linköping University)
Frans Stel (Vennebroek Academic Services (VAS))

Oldenburg, Linköping, Zuidlaren, 2020

Co-funded by the Erasmus+ Programme of the European Union

Progress in interest amongst participating students



- What was your level of interest in … **before** taking the module?
- What was your level of interest in … **after** taking the module?
- n = 14

Learnings of business partner CEWE, Oldenburg, Germany

Responsible:

Dr. Matthias Hausmann

Director Chemistry & Environment,
Head of Sustainability

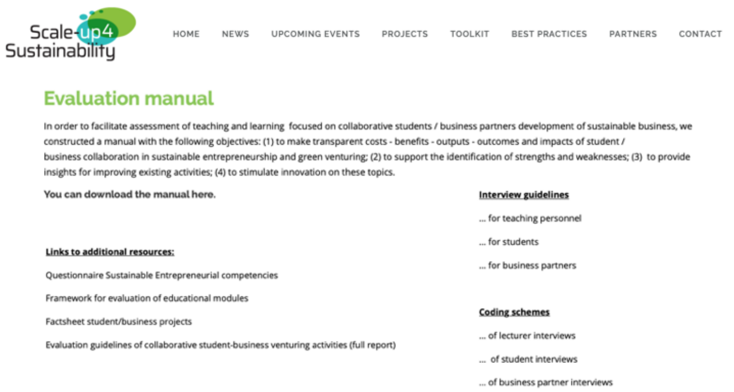
Involved:

Daniel Schimpf

Managing Director Cheerz,
Innovation Manager

Sylvia Vespermann

Project Manager Environment



Evaluation manual

In order to facilitate assessment of teaching and learning focused on collaborative students / business partners development of sustainable business, we constructed a manual with the following objectives: (1) to make transparent costs - benefits - outputs - outcomes and impacts of student / business collaboration in sustainable entrepreneurship and green venturing; (2) to support the identification of strengths and weaknesses; (3) to provide insights for improving existing activities; (4) to stimulate innovation on these topics.

You can download the manual here.

Links to additional resources:

Questionnaire Sustainable Entrepreneurial competencies

Framework for evaluation of educational modules

Factsheet student/business projects

Evaluation guidelines of collaborative student-business venturing activities (full report)

Interview guidelines

… for teaching personnel

… for students

… for business partners

Coding schemes

… of lecturer interviews

… of student interviews

… of business partner interviews

Approaches and Tools for Collaborative Venturing

Olof Hjelm and Wisdom Kanda, Linköping University
Presented at ISPIM Virtual 2020
June 10th 2020

Co-funded by the
Erasmus+ Programme
of the European Union

A multitude of tools and approaches

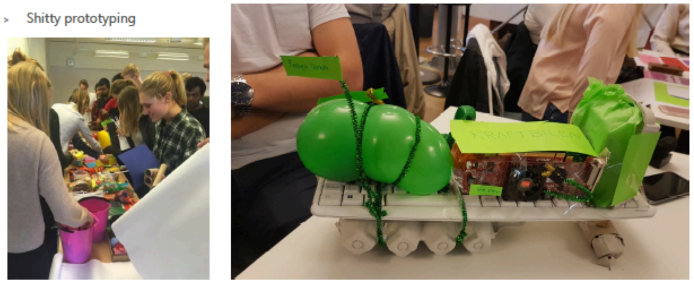
- Different purposes of tools and approaches
- Different phases of innovation and entrepreneurship
  - Ideation, early visualization, prototyping, business model development, company formation etc.
- Facilitation of collaboration
- General tools and approaches versus sustainability focused.

Database of tools and approaches for collaborative green venturing

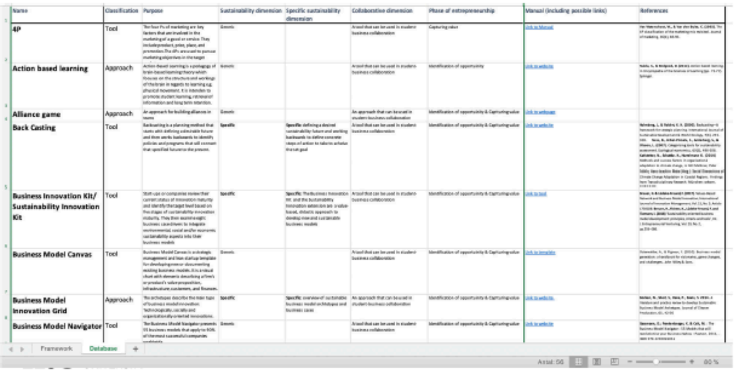
- **Purpose of database:** to collect approaches and tools for collaborative green venturing which can be used to get inspiration and concrete advice in developing modules, events, activities.
- https://www.scaleup4sustainability.eu/database/
- 70 tools and approaches compiled from:
  - workshops with HEIs in the project,
  - workshop with Swedish HEIs teaching sustainable entrepreneurship.

Early visualization

- Shitty prototyping



Tools and approaches for collaborative green venturing

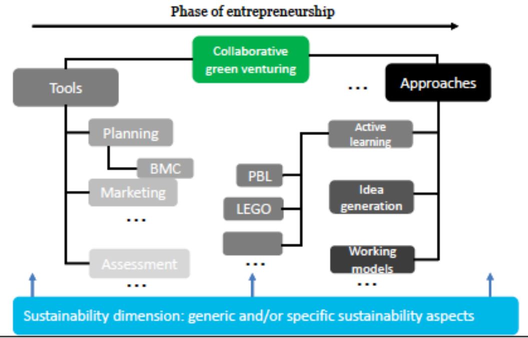


Name	Classification	Purpose	Sustainability dimension	Specific sustainability dimension	Collaborative dimension	Phase of entrepreneurship	Manual (including possible links)	References
4P	Tool	[illegible]	Generic		A tool that can be used in student business collaboration	Capturing value	Link to Manual	[illegible]
Action based learning	Approach	[illegible]	Generic		A tool that can be used in student business collaboration	Identification of opportunity	Link to website	[illegible]
Alliance game	Approach	[illegible]	Generic		An approach that can be used in student business collaboration	Identification of opportunity & Capturing value	Link to webpage	
Back Casting	Tool	[illegible]	Specific	[illegible]	A tool that can be used in student business collaboration	Identification of opportunity & Capturing value	Link to website	[illegible]
Business Innovation Kit/ Sustainability Innovation Kit	Tool	[illegible]	Specific	[illegible]	A tool that can be used in student business collaboration	Identification of opportunity & Capturing value	Link to tool	[illegible]
Business Model Canvas	Tool	[illegible]	Generic		A tool that can be used in student business collaboration	Identification of opportunity & Capturing value	Link to template	[illegible]
Business Model Innovation Grid	Approach	[illegible]	Specific	[illegible]	An approach that can be used in student business collaboration	Identification of opportunity & Capturing value	Link to website	[illegible]
Business Model Navigator	Tool	[illegible]	Generic		A tool that can be used in student business collaboration	Identification of opportunity & Capturing value	Link to website	[illegible]

Main categorization dimensions

- Name
- Classification
- Purpose
- Sustainability dimension
- Specific sustainability dimension
- Collaborative dimension
- Phase of entrepreneurship
- Manual
- References

Categorising tools and approaches for collaborative green venturing



Input to database welcome

›Missing tools and approaches?

›Links to manuals and Youtube?

›Ideas for further classification?

›Ideas for development of new tools and approaches!

›Send input to wisdom.kanda@liu.se!

Workshop program

10:40 – 10:45 **Coffee break**

10:45 – 11:30 **Exchange of experiences in sub groups - virtual 'break out' rooms**

1. *experience*
2. *success factors and barriers*
3. *challenges or drivers to upscale*
4. *ideas on new approaches*

11:30 – 11:50 **Reporting of the subgroups – plenary discussion – wrap up**

Plenary discussion

11:30 – 11:50

Summaries per breakout room (3 x 5")
General conclusion