CASE
Competencies for a sustainable
socio-economic development

Report CASE Workshops 1&2

2nd and 3rd of June 2015 13-16h
Vienna University of Economics and Business

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1 CASE Workshop 1 –"Sustainable socio-economic development"

The first CASE workshop entitled **"Sustainable socio-economic development"** took place on the 2nd of June 2015, 13:00-16:00 at the Vienna University of Economics and Business. Partners of the CASE consortium as well as external partners participated. In the beginning a short introduction of the CASE project was given focusing on the framework of a new joint master programme on "Sustainability Driven Entrepreneurship, Policies and Innovation" based on four educational modules focusing on: Sustainable socio-economic development, Sustainability driven enterprises, Eco innovations and environmental management and Environmental policies and networks. The first workshop dealt with the first module "Sustainable socio-economic development". A **status quo update** of the current **needs analysis** conducted in the first work package provided some background information on the question: *What competencies are necessary to foster sustainable entrepreneurship as well as collaboration between universities and business?* Based on the needs analyses four topics were identified as major thematic complexes in the context of a sustainable socio-economic development especially in terms of innovative approaches which should be dealt with further in the module development of the CASE project. The worldcafé method provided space for all participants to base discussions on the first module topic "Sustainable socio-economic development" in the context of **four suggested complexes** in different group compositions:

1) Responsible economy/Responsibility towards sustainable society (table moderator: Michael Ambros)
2) Transformation of the economy (table moderator: Christian Rammel)
3) Networks and multi-stakeholder networks (table moderator: Johanna Bernhard)
4) New institutional settings (table moderator: Petra Biberhofer)

Four worldcafé sessions in the first workshop focused on **two main questions**:

- What are the relevant themes for sustainable socio-economic development concerning the four suggested topics?
- How can we teach relevant themes of sustainable socio-economic development in the context of the four suggested topics?

The table moderators were responsible to summarize the results of each round and conclude the discussions. The report is mainly based on the results of the world café.

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1.1 Responsible economy/ responsibility towards sustainable society

What are the relevant themes for sustainable socio-economic development in the context of responsible economy/ responsibility towards sustainable society?

Further orientation questions:
What kind of values does a sustainable socio-economic development reflect on? What socio-economics effects do global trends such as climate change, biodiversity loss have on regional level? How shall the economy respond to such global trends? How can we overcome the dilemma globalization – regionalization? What does globalization mean for the economy/companies? What effects does global responsibility towards sustainable societies have on production sides and end consumption?

Individual and institutional ethics were identified as fundament for values then being applied (in actions). Specific values such as justice, transparency, eligibility, freedom, sufficiency, esteem, accountability, quality of life accessibility were pointed out.

Responsibility was discussed on two levels i.e. in terms of the **consumer side** involving "all of us" and the **producer side**, both in the context of **intrinsic** (feeling) and **extrinsic motivation** (being made responsible).

Governmental frameworks play an important role and were discussed via the Smart City concept as a practical example involving renewables and resource efficiency aspects. In the context of Smart City, the framework conditions provoke economic effects such as energy pools, energy poor and call for producer responsibility e.g. to fight obsolescence or aim at zero waste.

Framework conditions also influence competition and can lead to innovation and research. The open market in the EU was given as example within the energy sector.

Alternative economic strategies were mentioned, e.g. sharing instead of owing where mobility is a good practice example.

How can we teach relevant themes of sustainable socio-economic development in the context of responsible economy/ responsibility towards sustainable society?

Integration of societal needs and challenges was mentioned as a crucial aspect in terms of didactical implementation.

A first "group of themes" including experience exchange and knowledge transfer could be facilitated through **interpersonal communication** in interviews, dialogues or excursions to companies. Case or field studies, especially good and bad practices, are suitable to **analyse, compare and evaluate** entrepreneurial activities with special focus on sustainability criteria.

The next group should make daily actions **transparent and visualising** interrelations of impact (e.g. click @ online book store). The **connections** between politics, society and environment shall become comprehensible. This could be achieved through games (e.g. ecopolicy based on Malik). A change of perspective is practicable through role play. When it comes to action, it is important to **experience responsibility**, where project work was stated to be a good method.

Finally a **phase of reflection** after or within the application of a method shall be dedicated to all topics.

1.2   The transformation of the economy

> **What are the relevant themes for sustainable socio-economic development in the context of the transformation of the economy?**
>
> Further orientation questions:
>
> *How shall the transformation of the economy look like (production and consumption system)? What can trigger a transformation process? What roles do bottom-up initiatives, local/regional production cycles (regionalization processes) and community development play in this context?*

> **How can we teach relevant themes of sustainable socio-economic development in the context of the transformation of the economy?**

Pluralistic approaches towards transition/transformation fostering a sustainable socio-economic development are needed in order to respond to current trends and challenges. Learning in terms of **understanding history and perspectives** of transitions/transformations on different scales – such as **micro and macro** level – should be a key goal. The different approaches shall also underline: it is possible! (And what makes it possible?)

This pluralism means also a **critical reflection of transitions** (more top down) **and transformations** (more bottom up) and should highlight the different **values/cultures** (including their contradictions) embedded within the different approaches.

Role Models and Pioneers have to be invited and integrated in order to meet innovative change agents combining personal and social skills and evoke **societal impact**. Such initiatives have to be linked up with investors in order to foster societal impact further.

The aspect of **uncertainty** should be experienced and should not be a taboo. Students should be provided with **space for trial and error**, possibilities and freedom to make errors. Support on the way towards utopia in terms of **change management** shall be provided. Transformations and **cultures/values** have to be seen as an interrelated contradiction which has to be deconstructed.

Personal skills were defined as a starting point to face the topic of transformation of the economy deeply connected to needs and wants of students. To get to know oneself better and students own opportunities and responsibilities is essential. Also social skills and language barriers in terms of communication and empathy training have to be reflected on in this context. The focus on personal skills in connection with the topic of transformation of the economy is deeply interlinked with **societal impact**.

1.3   Networks and multi-stakeholder networks

> **What are the relevant themes for sustainable socio-economic development in the context of networks and multi-stakeholder networks?**
>
> Further orientation questions:
> *Which Multi-Stakeholder networks are perceived in the needs analyses? How can such networks help to improve impact of sustainable entrepreneurs/sustainable socio-economic development? What barriers do they face? How can translation barriers in such networks be overcome?*

> **How can we teach relevant themes of sustainable socio-economic development in the context of networks and multi-stakeholder networks?**

1. Stakeholders:

First of all we have to consider whom do we mean when we speak about multi-stakeholder networks? Which **actors** are involved?

- Civil society: consumers, associations…
- Public bodies: municipalities, government
- Lobbies
- Companies: Profit or nonprofit/ SMEs or large enterprises/international or local
- NGOs
- Universities, research institutions, schools

2. Relations:

A multi-stakeholder network as networks in general is defined not only through actors but very much through the relations and interdependencies in between. Some criteria:

- Intensity & power
- Frequency
- Purpose
- Formal – informal…

Relations in between the stakeholders involved are crucial and have to be discussed in a systematic way. Relations and actors as well as changing members within networks and attitudes are of relevance. The social network analysis is a common research-approach to make relations in networks visible.

3. Challenges:

In-depth analyses make challenges obvious partners face who work in multi-stakeholder networks (esp. universities & companies).

- Different languages
- Role of university
- Approach: theoretical or practical…

Students should face **challenges** in those networks in terms of experiencing different languages and aims of stakeholders.

Further, students should get a feeling/sense for the background of networks towards **analyses** of involved actors, systems and their relations.

4. Measures

To encounter these challenges and barriers:

- Analyses of actors, systems and relations
- Multi-stakeholder projects: with NGOs or companies, intra-university simulation project

Projects should involve testing of relations and co-working spaces. University networks and simulations, which are not utility oriented, can provide a good platform for such an approach. In general setting should leave space for creativity.

- "translator": course and training of skills, which are important for translating

The need for a **translator** to respond to different languages and the possibility that universities could offer such educational trainings was outlined.

1.4   New institutional settings

What are the relevant themes for sustainable socio-economic development in the context of new institutional settings?

Further orientation questions:
What kinds of institutions are necessary for a sustainable socio-economic development (i.e. responsible and sustainable universities)? What role do market dynamics play in this context? What kind of governance framework does it need?

New institutional settings should reflect on the interaction between structures and actors/agencies focusing on **deliberative structures and participation processes**. Platforms are central for new institutional settings but should not only be thought as digital devices but rather **actual spaces** in terms of room and time **facilitating interactions and relationships** of knowledge alliances. Face to face meetings and discussion fora such as the CASE workshop were mentioned as possible settings new institutions can benefit from. Institutions were discussed as **conglomerates of multistakeholder networks**.

Various spheres such as public, knowledge/universities, market and their interdependency have to be reflected on. (Although it should be mentioned that this particular division was criticized to be outdated and the context of mergers needs to be focused.) The **understanding of spheres** is very important and their **deconstruction** should be crucial when new institutional settings are developed. The concept of market should e.g. be deconstructed and reflected in terms of multinationals, national companies/sites, consumers turning into prosumers etc. In this context central questions are amongst others: **What is the market? How do markets develop? How can institutions be changed? How is the society working?** Does the market represent customer wants and needs and how are needs actually created?

In sum **history and development of institutional settings** are central to understand current settings and a prerequisite to develop new institutional settings (History matters!). Trends have to be reflected and the

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questioning of what e.g. the market is and should be is central. Different disciplines and scales have to be reflected on.

Further universities frameworks should be reflected on especially how more freedom could be provided in order to have the capacity to respond to transdisciplinary oriented research and teaching approaches. Therefore e.g. curricula have to be designed more flexible, subjects shall be chosen from students themselves (vs. monodisciplinary structured curricula). Public in terms of legal institutions and their persistence in terms of inability to change should be an important complex.

The framework the CASE knowledge alliance is embedded in is on the one hand decisive for further project development and should on the other hand be reflected within curricula as well as a real-life example which is close to students realities. **Universities frameworks** and the challenge to implement inter- and transdisciplinary settings shall be reflected within the modules as the stakeholders engaged necessarily need to understand those integral parts of society in order to develop new institutional settings which respond to current trends.

How can we teach relevant themes of sustainable socio-economic development in the context of new institutional settings?

Communities and community building processes should provide a living example to reflect on real-life institutional settings. Community **participation processes/ public community processes** and **stakeholder fora** provide ideal settings to learn from e.g. Smart City Stakeholder fora from process oriented to topic oriented approach. Such **real-life experiences** can also be supported via visits, excursions via identification of landscapes and the ability to understand how institutions actually function.

Team work methods, project work and case oriented methods as well as (computer) simulations and role games can foster actual experiences to students in the context of deliberative structures and participation processes of institutional settings. The Lean start-up method http://theleanstartup.com/principles was mentioned as a valuable approach in this context.

In general it is necessary to provide **space and time/dialogue and negotiations space** to bring new institutional settings with various stakeholders alive. Language barriers in between disciplines have to be considered as a main challenge in this process.

1.5 Summary Workshop 1 results

Topic	Responsible economy	Transformation of the economy	Networks and multi-stakeholder networks	New institutional settings
Key aspects of topic	- Individual and institutional ethics - Values such as justice, freedom, quality of life - Responsibility of consumers and producers - Governmental frameworks - Alternative economic strategies	- Pluralistic approaches - Understanding history - Critical reflection of transition and transformation - Values and cultures - Role models and pioneers - Societal impact - Change management	- Stakeholders and actors - Relations and social networks - Challenges in multistakeholder networks - Measures to encounter challenges and barriers - Translators to respond to different languages	- Deliberative structures and participation processes - Spaces to facilitate interactions and relationships - Various spheres to be encountered and deconstructed: public, knowledge and market - History and development of institutional settings
Methods to foster understanding of topic	- Integration of societal needs and challenges - Interpersonal communication - Make daily actions transparent and visualize interrelations of impact - Experience responsibility - Reflection phase	- Space for trials and error and uncertainty - Personal skills as a starting point to reflect about own opportunities/responsibilities - Needs and want of students should be reflected - Social skills	- Stakeholder analysis - Social network analysis - In depth analyses of challenges in multistakeholder networks - Measures in terms of projects - Course and training of skills for translators	- Community building processes/stakeholder fora - Real-life experiences - Team work methods, project work and case oriented methods - Space and time for dialogue and negotiation

2 CASE Workshop 2 –"Entrepreneurial skills for sustainability driven enterprises "

The second CASE Workshop entitled "**Entrepreneurial skills for sustainability driven enterprises**" took place on the 3rd of June 2015, 13:00-16:00 at the Vienna University of Economics and Business. Again partners of the CASE consortium as well as external partners participated. After a short introduction of the CASE project a status quo update of the current **needs analysis** conducted in in the first work package followed. Based on the needs analyses **five competencies in sustainability** illustrated in the figure by Wiek (2011) were identified as an adequate framework especially concerning the needs of sustainability driven entrepreneurs. The worldcafé method provided space for all participants to discuss those competence fields and five table moderators summarized the results in the end:
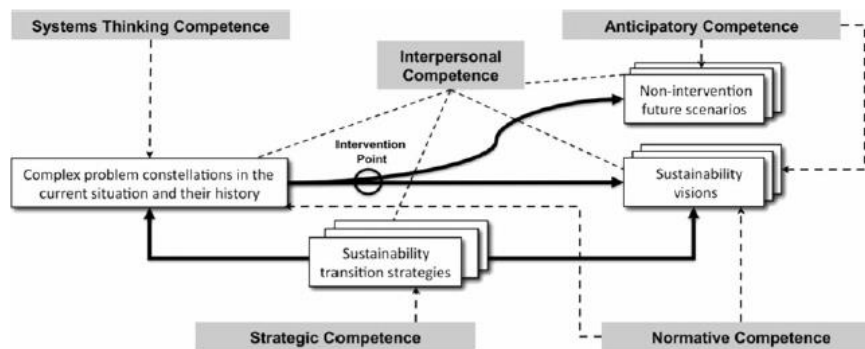

Fig. 2 The five key competencies in sustainability (*shaded in grey*) as they are linked to a sustainability research and problem-solving framework (see Fig. 1). The *dashed arrows* indicate the relevance of individual competencies for one or more components of the research and problem-solving framework (e.g., normative competence is relevant for the sustainability assessment of the current situation as well as for the crafting of sustainability visions)

1) System thinking competence: Ability to collectively analyze complex systems across different domains and across scales. (table moderator: Marco Rieckmann)
2) Anticipatory competence: Ability to collectively analyze, evaluate, and craft rich pictures of the future related to sustainability issues and sustainability problem-solving frameworks. (table moderator: Michael Ambros)
3) Normative competence: Ability to collectively map, specify, apply, reconcile, and negotiate sustainability values, principles, goals, and targets. (table moderator: Petra Biberhofer)
4) Strategic competence: Ability to collectively design and implement interventions, transitions, and transformative governance strategies towards sustainability. (table moderator: Christian Rammel)
5) Interpersonal competence: Ability to motivate, enable, and facilitate collaborative and participatory sustainability research and problem solving. (table moderator: Lisa Bockwoldt)

The worldcafé sessions in the second workshop focused on **two main questions**:

- Which competencies do sustainability driven entrepreneurs need?
- How can sustainability driven entrepreneurial skills be promoted?

2.1   System thinking competence

Definition: Ability to collectively analyze complex systems across different domains and across scales.

Which competencies do sustainability driven entrepreneurs need?

In order to create system thinking competence **system dynamics and boundaries** have to be understood. Sustainability driven entrepreneurs should be able to analyse complex **interrelations**. Also the **scale** is important to consider such as local – global and different levels such as micro, meso, macro in order to get the bigger picture of current system dynamics. **Stakeholders and networks** are necessarily interlinked to this process. Also value chains and life cycles are important to consider in this context. **Impacts on nature, society and economy** are crucial to be considered when system thinking competence is at stake. Last but not least also an understanding of **concepts** such as the economic system, the financial system, social metabolism, ecosystem and elements of systems as well as the ability to use **methods** such as network analysis, actor analysis, life cycle analysis and MEFA (Material Energy Flow Analysis) are elements of system thinking competence.

How can sustainability driven entrepreneurial skills be promoted?

Using methods such as **networks analysis, actor analysis, life cycle analysis LICEA, MEFA** (Material Energy Flow Analysis) on local cases is a valuable approach to do so..

Methods should focus on **examples from practice**, focus on project work, trips/excursions and use methods on local cases. **Simulations tools and games** are very helpful to foster system thinking competence. Also **international dialogue and exchange** was mentioned as a valuable method. **Dealing with uncertainty** helps to get experience with system boundaries as well as **historical events/examples** can be used to understand system dynamics. Lecturers should focus on **interdisciplinary learning** settings and consider master thesis teams.

2.2   Anticipatory competence

Definition: Ability to collectively analyze, evaluate, and craft rich pictures of the future related to sustainability issues and sustainability problem-solving frameworks.

Which competencies do sustainability driven entrepreneurs need?

How can sustainability driven entrepreneurial skills be promoted?

Methods are indicated cursive.

The capability of setting up a **logical framework** – within a given context – was defined as core element linking anticipatory aspects such as time-reference, occurrences and actors. With **time-reference** three aspects were pointed out:

- **Visionary thinking** where creativity, imagination (utopia) and the courage to think big are essential. *Suitable methods could be the vision board or 'Santa Claus' – where unlimited resources and/or money are available. Inspiring talks with entrepreneurs or project work, e.g. within new product development, may also foster visionary thinking.*

- **Considering trends** and equally questioning them was stated to be important. Strongly linked to that, the awareness of not everything being predictable and steerable or influenceable was added.
- **Generational thinking** is a known key aspect in sustainability approaches. This necessitates taking into account short, medium and long term intentional and unintentional outcomes of actions and decisions. The term generation was understood not only regarding human beings but also other species.

When it came to **occurrences**, their handling was focussed. **Alternative scenario thinking** is essential to anticipate possible developments. *This can be trained through simulation games, science fictional thinking or an adapted 'negative Santa Clause', where resources are eliminated.* **Resilience** was suggested to be one of the best solutions to tackle occurrences. It could be achieved through an organisational structure shaped by innovation and openness, based on a different perception of causes and effects having multiple relations.

Entrepreneurs should bring along the **flexibility to change the path**, avoiding dependencies. *Technical competences in innovation and project management can be gained with the help of design thinking methods or graphic recording.*

Furthermore, **risk awareness** and the readiness for **failure** were mentioned as crucial. *There is a [conference](#) tackling issues of fear and failure.*

The significance of relations to other **actors** was seen as follows:

- **Involving stakeholders** was seen as success factor as they influence the entrepreneurial activities. *Learning how to define stakeholders, identify relevant ones and understanding their role was regarded as important as a fundamental political understanding.*
- The **governmental framework**, including clusters and development strategies (e.g. concerning urban planning) should be taken into account.

Role models often act as **best or better practice examples**; consequently the associated risks should not be ignored. Copying may fail due to differences in time or the given situation. Also, good intentions do not necessarily lead to good results.

Finally, to set up the logical framework, the ability of **logical thinking** is indispensable.

Reverse modelling and backcasting allow learning how to anticipate a future desired state by defining decisions and actions in the present.

2.3   Normative competence

Definition: Ability to collectively map, specify, apply, reconcile, and negotiate sustainability values, principles, goals, and targets.

Which competencies do sustainability driven entrepreneurs need?

Understanding the **system of ethics** is crucial and the ability to differentiate between mainstream argumentation, weak and strong points. The ability to **set priorities and assess** should be fostered and not only cause and effect mentality, materiality and relevance matter. The ability to deal with **contradictions** within and in between paradigms and the understanding that "either/or" mentality is shortsighted. Ability to **deconstruct narratives** such as benefit maximization versus profit maximization justice, freedom, values etc. Ability to understand system boundaries on various scales in terms of time, space and therefore **system dynamics**. Source of input could be ecological science interrelations and interdependencies of multiple demands of an (eco-) system.

World of facts and value facts: Ability to recognize dichotomies via exploring empirical and normative background. What part of body of science are 1) assumptions, 2) normative parts i.e. limits and all types of positivism, 3) empirical parts?

Empirical research about **people behavior**, empirical based views on normative world is a good way to foster normative competence. Exploring of **different disciplines** via inter- and transdisciplinary settings in order to open minds and think about own perspective. **Work with your emotions:** Understand how values develop within persons, orientation stones of our own values -> connection in between emotions and values.

<u>Link to other competences:</u> link to interpersonal competence/motivation; system thinking competence

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How can sustainability driven entrepreneurial skills be promoted?

First of all it is important to create space and time for sharing experiences and knowledge. Approaches such as **dilemma analyses and management** as well as **solution oriented approaches** are valuable to foster normative competence. Also methods which focus on finding a common base such as **consensus activities** are crucial.

Pioneer programs should function as role models especially those which link to emotions via exploring theories and make them visible (environmental ethics). i.e. Schuhmacher College: Earth Walk with Stephan Harding or MSc Programme "Economics in Transition" in UK (Tim Crabtree).

Methods should focus on **<u>learning from real life experiences</u>**. **Vision and norms formulation** of companies in order to share normative with others are key. **Practical examples** showing process should be provided i.e. how principle formulation of sustainable enterprise - is conducted. Examples which can be used in this context are platforms such as TESSEA: platform for social enterprises becoming a legal definition by law or Nachhaltig Wirtschaften, an Austrian Online Platform, focusing on research studies funded via the Austrian Ministry for Transport, Innovation and Technology/BMVIT.

Another valuable method mentioned was **<u>reading and writing for critical thinking</u>** (RWTC). Eva Frankova (Uni Brno) applies this method in practice i.e. in connection with topics such as degrowth, development education, fair trade, ecological economics, also together with other universities and NGOS such as NAZEM/On Earth with a focus on teacher trainings. The emotional moderation approach is an interesting tool in this context as well. The RWTC approach helps to learn about norms behind text and suggests a three stage structure also available as a toolkit of methods: 1) Evoke what is there; 2) Face of new things; 3) reflection phase.

2.4   Strategic competence

Definition: Ability to collectively design and implement interventions, transitions, and transformative governance strategies towards sustainability.

Which competencies do sustainability driven entrepreneurs need?

How can sustainability driven entrepreneurial skills be promoted?

In the center of this is the **recognition of the own opportunities** and the **openness for new chances and new developments**. For this, it needs **various fields of explorations** (challenges, trends, and problems…-> methods such as ideation) for the students as **real life check** and **areas to learn by trial and error**. (Method: fear and fail conferences – what did you do wrong?). It would be good to link this up with the own concrete business cases/ ideas from students (methods: SWOT, ABC development). This real life check must also include the perspective of future customers (link to lobbying)

From a strategic point of view, it is highly important to understand that this new entrepreneurs are dealing with "**two worlds**" (market dynamics vs socio-ecological visions. (Method: de-construction).

Competencies must also strongly include **lobbying** - > networks / indoor lobbying / learning via logistic directive developments. Lobbying includes also to create students own markets /niches and to get external funding. External funding includes the matter of crowd funding and external R&D (danger to spend too much focus on this!)

For strategic competencies, **service learning** was seen as very valuable as it supports learning between different cultures and different social logics -> different languages (communication issue!).

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2.5 Interpersonal competence

Definition: Ability to motivate, enable and facilitate collaborative and participatory sustainability research and problem solving (according to Wiek et al.)

Aspects of interpersonal Competence for sustainable entrepreneurship	Methods to foster those competences
Teamwork - Being able to clarify the aims and not-aims within a team - Being able to clarify the roles within a team - Finding the common base in a team through communication - Group dynamics -> identifying the group's stage - Understanding the relations between group members	- Service-learning in interdisciplinary teams like practiced in the "sustainability challenge" - 5-7 days intense group experience - Group work in general in optional subjects -> needs to last for a whole semester and needs to have a goal to achieve in order to have a certain pressure in the group dynamic
Communicational skills - Convincing others/making them curious for your idea - Negotiate, moderate, mediate and translate values, interests and languages (also meant are languages within different disciplines) intern in your team but also with external stakeholders	- Doing a science slam in public contexts, but first practice presentations at university
Leadership - To lead, but not to force (democratic leadership) - Control vs. freedom for employees - To allow the employees to actively take responsibility in their work - Knowing strengths and potentials of your employees - Trust in specific knowledge of employees/colleagues - Leadership on the basis of professional and social competence (legitimacy)	- Introducing role models, spending time with "real leaders" - Interdisciplinary courses with staff from e.g. psychology to learn with methods like family constellations
Handling Diversity and Interdisciplinarity - How to cooperate with people with different mind-settings (different cultures, different generations etc.) - Being open-minded for different cultures	- Seminars with mixed disciplines but cooperative projects -> interdisciplinarity has to "hurt", but you will find out about the benefits in reflections
Structured way of working	- Training on project management
Building up networks	- Identifying networks - Analyzing and describing networks (stakeholder analysis)
Motivating others and yourself	

2.6 Summary Workshop 2 results

Competence	System thinking	Anticipatory	Normative	Strategic	Interpersonal
Aspects of competence	- Understand system dynamics and boundaries - Understand complex interrelations - Consider various scales - Understand linkages between stakeholder and networks - Understand impacts on nature, society and economy - Understand concepts such as economic system, ecosystem - Be able to use methods such as networks analysis, actor analysis, life cycle analysis LICEA, MEFA (Material Energy Flow Analysis)	- Setting of framework and context - Time-reference: visionary thinking, considering trends, generational thinking - Occurrences (i.e. resilience) – alternative scenario thinking - Flexibility to change path - Risk awareness and readiness for failure - Relation to actors/involving stakeholders - Logical thinking	- Understanding system of ethics - Set priorities and assess - Deal with contradictions - Deconstruct narratives - Understand system dynamics and boundaries - Analyze world of facts and value facts - Analyze people behavior - Inter- and transdisciplinarity - Work with emotions	- Recognition of own opportunities - Openness for chances and developments - Various fields of explorations i.e. challenges, trends, problems - Real life check: link to own business cases - Future customers - Two world recognition - Lobbying/Networking	- Teamwork: aim and role identification, understand group dynamics and relations - Communication skills - Democratic Leadership - Handling diversity and interdisciplinarity - Structured way of working - Building up networks - Motivating others and yourself
Methods to foster competencies	- networks analysis, actor analysis, life cycle analysis LICEA, MEFA (Material Energy Flow Analysis) - Examples from practice, Project work, Trips/excursions, Using methods on local cases - Simulations tools, games - International dialogue, exchange - Dealing with uncertainty - Historical events/examples - Interdisciplinary learning settings and master thesis teams	- Santa Claus method - Simulation games, science fiction thinking, negative Santa Claus method - Design thinking methods or graphic recording - Conference attendance - Stakeholder analysis - Role model reflection - Reverse modelling and backcasting	- Dilemma analyses and management - Solution oriented approaches - Consensus activities - Earth walk - Real life experiences: vision and norm formulation - Link to practical examples/cases/plat forms - Reading and writing for critical thinking	- Ideation - Fear and fail conferences - SWOT, ABC development - Deconstruction - Service learning - Communication training	- Service learning in interdisciplinary teams - 5-7 days intense group experience - Science slam - Introducing role models - Interdisciplinary courses - Training on project management - Network analysis, stakeholder analysis