GREEN SKILLS 4 CITIES

Training for Trainers : Business Dimension

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SECTION 1

GLOSSARY

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UNDERSTANDING THE MOST IMPORTANT TERMS FROM A BUSINESS PERSPECTIVE

Business Sustainability: The “Business Sustainability Typology” used in these slides was developed by Dyllick and Muff (2016). They cluster sustainable business performance in four stages, enabling a practical distinction between early, intermediate and advanced stages of business sustainability in practice. They herein determine three different shifts away from 'business as usual' towards Business Sustainability 1.0, 2.0 and 3.0.

Consumer/ user: is the person organization who has the rights to consume a good or service. A consumer/user may or may not be the actual buyer of a product or service.

Corporate Social Responsibility (CSR): is the understanding and idea that businesses should consider the environmental and social impact of business decisions and to play a positive role in the community. The downsides of this idea will be explained in the presentation.

Degrowth: is a political and economic theory which emphasises changing priorities of society from economic growth and production to a society based on sustainability, well-being, concern for environment and co-operation.

Entrepreneur: An entrepreneur is a person who launches a new enterprise and shoulders the most of the risks while obtaining the majority of the benefits.

UNDERSTANDING THE MOST IMPORTANT TERMS FROM A BUSINESS PERSPECTIVE

Entrepreneurship is the term for the process of starting a company. The entrepreneur is frequently portrayed as a creator of new ideas, products, services, and/or business/or operations.

Lean management: is an approach within an organization/business that supports continuous improvement and systematically seeks to achieve small, incremental changes in processes to improve quality and efficiency.

Limits of Growth are limits of the ecosystem to absorb waste and replenish raw materials in order to sustain the economy.

Pivoting: describes the process a company intentionally takes to shift or turn into a new direction and try out something new. A business pivot is a key strategic move.

Triple-Bottom-Line: The TBL consists of three elements: profit, people, and the planet. Companies with a TPL focus as much on financial as on social and ecological concerns.

SECTION 2

THEORETICAL BACKGROUND

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UNLIMITED GROWTH // LIMITS OF GROWTH // DEGROWTH

WHY A PARADIGM SHIFT IS NEEDED

- resource scarcity
- environmental pressures
- climate change
- globalization
- demographic changes
- persistent poverty
- social injustice
- urbanization
- …

A light article on criticism on growth can be read here.

UNLIMITED GROWTH//LIMITS OF GROWTH// DEGROWTH

Looking into the fundamentals of neoliberal models, the current economic behavior is primarily influenced by the GDP and its' growth is a key indicator for a nation's wealth (Rubio-Mozos et al., 2019).

But:

As the IPCC, (2019) or Limits of Growth (1972, Club of Rome) clearly states, there is an unmistakable **correlation between economic growth since the industrial revolution and the over-usage of finite resources, polluting land, air and water** - causing our earth's climate to change.

Economic Growth: Economic growth is an increase in the production of goods and services in an economy.

Limits of Growth and Degrowth are counter arguments that dispute the the logic of economic growth due to the existence of finite resources, lack of social and ecological considerations.

THE BUSINESS OF BUSINESS IS BUSINESS

by Milton Friedman

vs.

Photo by Markus Spiske, 2020

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THE BUSINESS OF BUSINESS IS BUSINESS

by Milton Friedman

Reasoning of Milton Friedman:

Profit orientation of companies automatically entails **a social function**. By generating profit, businesses act responsibly to the labour market, and contribute to the growth of GDP of a nation.

Hence the **only responsibility businesses have is to create as much profit as possible**.

BUT you cannot do business on a dead planet. Excluding any responsibility from businesses is now more and more contested. Even within **neoliberal economic streams.**

Climate crisis, resource extraction, pollution, social injustice, exploitation of environment and people => Are challenges no business can avoid!

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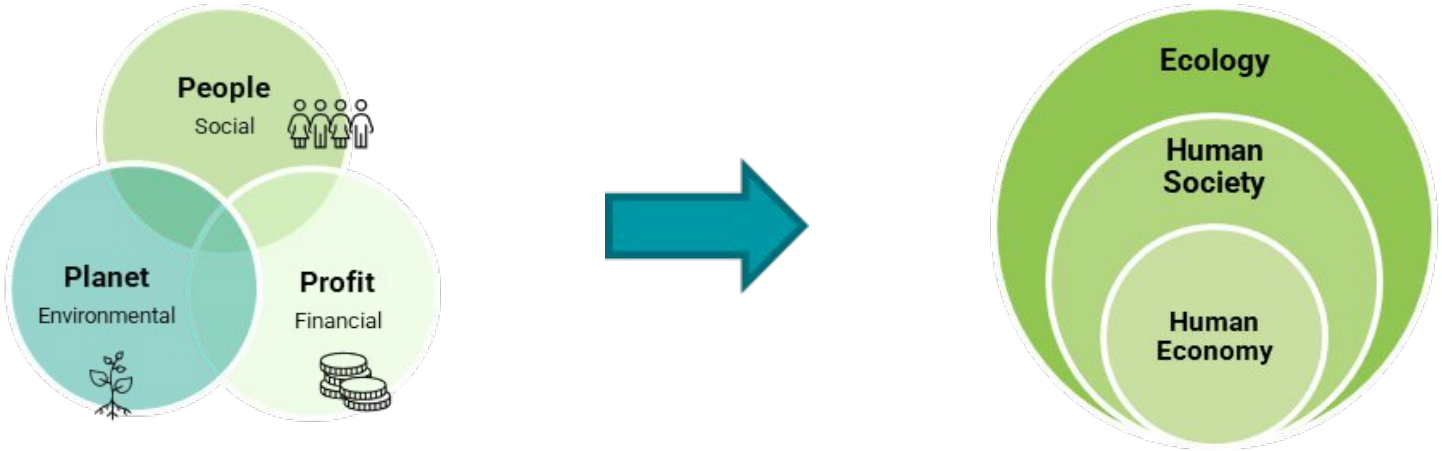
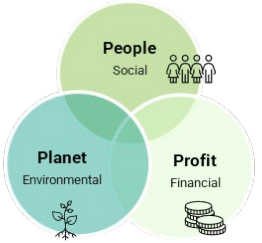
THE NEW WAY OF DOING BUSINESS

The Triple Bottom Line (TPL)



THE NEW WAY OF DOING BUSINESS



While the **Triple Bottom Line paradigm** of planet, people and profit being treated equally and having overlapping goals, has gained prominence, we need to shift towards a more accurate understanding of how business is embedded. This is where **NBS** can and should play an important role to understand it, as:

- the economy **cannot** be disconnected from natural capital, i.e. from the natural resources.
- money is just a counting system, but has no intrinsic value in itself.

Hence, the commonly used Triple Bottom Line model is something we have to move away from! Instead, the model should be shown as concentric circles, with the Planet (ecology) underpinning the other two.

Nature is not only an equal player to keep in mind, it is probably the so far most underestimated solution and one of our best chances to fight the challenges of the 21st century and beyond.

THE NEW WAY OF DOING BUSINESS

The New Way of Doing Business counteracts popular, yet outdated economic streams such as the one presented by Milton Friedman. People who engage in the New Way of Doing Business, are often described as:

> *"Sustainability-oriented business professionals act as agents of (sustainable) change. They provide entrepreneurial answers to current sustainability problems. Complementary to technological innovations, they often focus strongly on institutional innovations and exhibit a high degree of social networking."*

BUT BEFORE WE CONTINUE, LET'S WATCH THIS VIDEO ABOUT BUSINESS TYPOLOGY BY DYLLICK & MUFF (2016):

https://www.youtube.com/watch?v=AEFqUh4PMmI

FROM BUSINESS AS USUAL TO BUSINESS AS UNUSUAL

BUSINESS SUSTAINABILITY TYPOLOGY (BST)	Concerns (What?)	Values Created (What for?)	Organizational Perspective (How?)
Business-as-Usual	Economic concerns	Shareholder value	Inside-out
Business Sustainability 1.0	Three-dimensional concerns	Refined shareholder value	Inside-out
Business Sustainability 2.0	Three-dimensional concerns	Triple bottom line	Inside-out
Business Sustainability 3.0	Three-dimensional concerns	Creating value for the common good	Outside-in
The key shifts involved:	1st shift: broadening the business concern	2nd shift: expanding the value created	3rd shift: changing the perspective

Source: Dyllick and Muff, 2016, p. 168

BUSINESS SUSTAINABILITY TYPOLOGY BY DYLLICK AND MUFF

They cluster sustainable business performance in four stages, enabling a practical distinction between early, intermediate and advanced stages of business sustainability in practice. They herein determine three different shifts away from 'business as usual' (0.0) towards Business Sustainability 1.0, 2.0 and 3.0.

Business Sustainability 0.0 - business as usual, based on purely economic interest. This is the understanding of Milton Friedman.

Business Sustainability 1.0 - mostly CSR activities, where businesses recognize and embrace challenges and opportunities that occur from societal and environmental concerns and incorporate them into given practices and processes “without changing the basic business premise and outlook” (Dyllick/Muff 2016:392). In this stage, creating economic value remains the main target while addressing sustainability issues results in benefits for the business itself.

Source: Greenpeace, no date

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BUSINESS SUSTAINABILITY 2.0 AND 3.0

Business Sustainability 2.0 - following the triple bottom line approach, hence balancing the social, environmental and economic impact of the business activities. In practice, this means to broaden the value of shareholder value by the addition of social and environmental values and by implementing particular programmes and actions to reach intendedly set-up sustainability goals.

Business sustainability 3.0 - considered as truly sustainable business performance. Characterized by its outside-in perspective, where businesses start by looking at the external world and related challenges first, before developing the actual business idea. Emphasis is not on minimizing or outbalancing negative business performance but rather on creating positive impact for the greater good.

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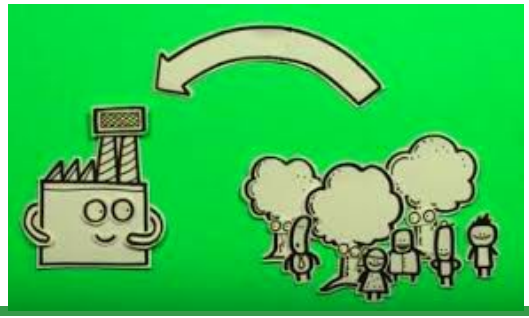


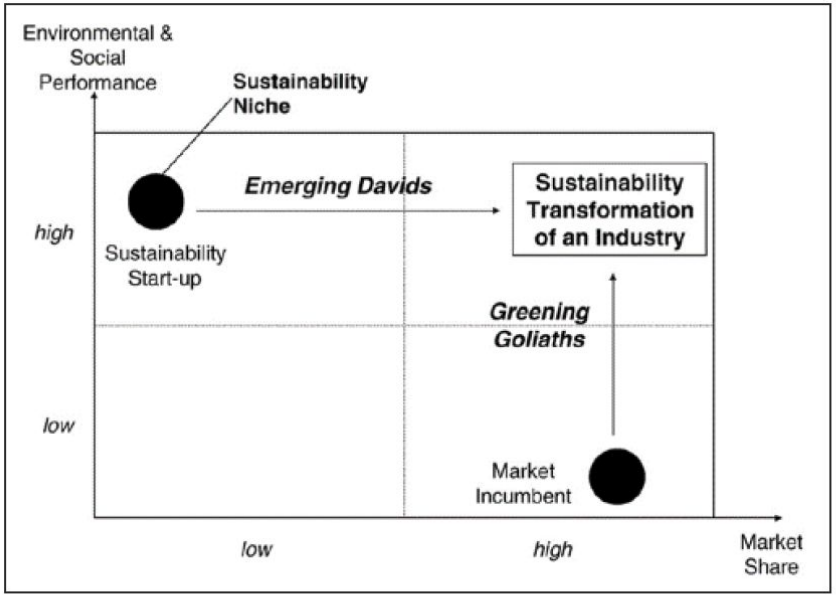
Source: Dyllick and Muff, 2016

So how can businesses be part of the solution?

"What society and the planet need in the next two decades is nothing short of an economic miracle whereby business with its capacity for innovation is uniquely well placed to generate such a miracle."

(Dyllick/Muff 2016, 387)

DAVID VERSUS GOLIATH // THE ROLE OF START-UPS

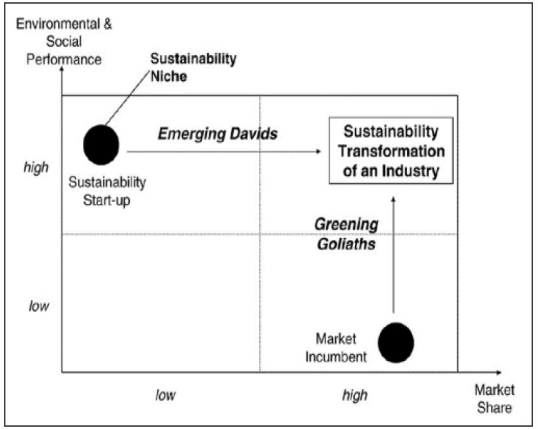


Hockert & Wüstenhagen, 2010

DAVID VERSUS GOLIATH // THE ROLE OF START-UPS

Some academic literature suggests that the environmental degradation and social discrepancies existing now, can only be solved through massive **innovation** provided by sustainable startups, as **conservative solutions** are no longer effective or rather only lead to an incremental innovation that market incumbent, meaning well established, companies provide. (Hockerts & Wüstenhagen, 2010).

In this figure, sustainable startups are depicted as 'Emerging Davids', following the biblical imagery to possess the capability of transforming the position of large, 'Market Incumbent' firms by introducing radical sustainable innovation in a market niche. This forces established companies to adapt to the changing needs in the market and hence small sustainable startups facilitate change in an entire industry (Hockert & Wüstenhagen, 2010)



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HOW IMPLEMENTING NBS CAN LEARN FROM BUSINESS

Wherever you look, the interlinkage between nature, climate, human society, and the economy are becoming clearer and more vivid. Opportunities to create more resilient, prosperous and healthy cities for urban populations and to prepare cities for future challenges through sustainable solutions inspired by nature exists. Nature-based solutions can provide the necessary sustainable, cost-effective, win-win solutions **creating economic opportunities, employment, and multiple public health and wellbeing benefits!**

Despite wide recognition of these benefits, a significant gap remains between the potential of NBS and using them to implement these benefits.

Why? Biodiversity and ecosystem services are difficult to put into standardized economically viable business models. One of the most prominent reasons for this is being that ecosystem services are often seen as externalities and usually not paid for. However businesses have strong aptitude to offer innovative solutions to societal challenges and act as a key partner in NBS delivery.

HOW IMPLEMENTING NBS CAN LEARN FROM BUSINESS

- reach the right audience
- speak their language
- understand the users (their needs, pains and potential gains)
- test the product/service as early as possible
- take NBS out of the niche and mainstream it
- provide the necessary sustainable, cost-effective, win-win solutions
- creating economic opportunities
- fast decision making

SECTION 3

BEST PRACTICE : CASE STUDIES

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BEST PRACTICE CASES // INNOVATIVE AND SUSTAINABLE BUSINESS MODELS IN CITIES

Kern-Tec

BauKarussel

Plant-e

Bluen.at

BEST PRACTICE CASE // INNOVATIVE AND SUSTAINABLE BUSINESS MODELS IN CITIES

Kern-Tec: Kern Tec is producer and processor and seller of fruit seeds of cherry, apricot, plum and many more. In Europe, fruit pits are a waste product - as for example in the juice industry. However, at Kern Tec, these largely undiscovered resources are transformed into high-quality products such as new baking ingredients and sustainable oils through careful processing. The production of sustainable products from an priorly **unused sidestream**, does not only substitute e.g. **plastic** in cosmetics from the shell but has a great impact on **water and land usage** of e.g. apricot seed oils substituting the resource heave almond oil.

Want to find out more about how **circular economy and zero waste** is put in a business model, take a look here.

BEST PRACTICE CASE 1 // PUTTING CIRCULAR ECONOMY INTO PRACTICE

BauKarussell is the first Austrian pilot project for re-use in large-scale construction. In cooperation with property developers and project developers, components that can be **reused in new construction** are removed before a building is demolished. In the process, **workers from socio-economic enterprises** are employed, who thus receive qualification, job training and better opportunities on the labor market - a win-win situation for people and the environment. BauKarussell's first success was the demolition of the Coca-Cola plant in Vienna, which not only avoided **450,000 kg of waste but also generated 100,000 euros in revenue.**

Curious? Here you can find more information!

BEST PRACTICE CASE 2 // NATURE-BASED SOLUTIONS AS BUSINESS MODEL

Plant-E: Electricity generation with living plants. Plant-e develops products in which living plants generate electricity. To make this possible, Plant Microbial Fuel Cell (P-MFC) technology is used. This technology was developed at Wageningen University and was patented in 2007. Plant-e is now the patent holder and is continuously working on further research and product development.

A plant produces organic material through photosynthesis. Part of this organic material is used by the plant for its own growth, but not everything is used by the plant. This remaining part is excreted via the roots to the soil. In the soil, around the roots of the plant, bacteria break down the organic material. In this degradation process electrons are released as a waste product. The P-MFC technology ensures that we can use these electrons as electricity.

Enabling the usage of CO2 negative power. Interested? More information here.

BEST PRACTICE CASE // INNOVATIVE AND SUSTAINABLE BUSINESS MODELS IN CITIES

Bluen.at: Is the first commercial company in austria that runs with the aquaponic system - a system combining the best from hydroponics (the growing of plants usually in a soil-less environment) and aquaculture (the growing of fish in a closed environment) within a circulating system.

How does that work? By utilizing natural bacterial cycles that convert fish waste into plant nutrition. There is no need to discard any water, or add nor filtrate any chemical fertilizers - making it an environmentally friendly and naturally food growing method especially promising for urban contexts. Imagine all the rooftops where both local fish could be sourced and vegetables could be planted!

Find out more here!

SECTION 4

METHODOLOGY OF TEACHING: SERVICE LEARNING

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SERVICE LEARNING // DEFINITION

"The basic theory of service-learning is from John Dewey's: the interaction of knowledge and skills with experience is key to learning. Students learn best not by reading the Great Books in a closed room but by opening the **doors and windows of experience**. Learning starts with a problem and continues with the application of increasingly complex ideas and increasingly sophisticated skills to increasingly complicated problems."

Thomas Ehrlich, in Barbara Jacoby and Associates. 1996.

SERVICE LEARNING // WHY?

It is a method which provides a direct and critical learning experience, which involves knowledge about and for sustainable development, tackle related values and teach competencies to engage actively in sustainable change.

SERVICE LEARNING // BENEFITS FOR STUDENTS

- Applies concepts from the lecture to their service.
- Provides platforms to analyze and discuss civic values.
- Increases their sense of “real life problems”, analytical skills, and social development.
- Develops meaningful involvement with the local community.
- Learning to deal with transdisciplinarity.

SERVICE LEARNING // BENEFITS FOR TRAINERS

- Creates a collaborative, experiential lecture experience for students, making faculty impact more lasting.
- Offers opportunities to test theories on real problems.
- Provides access to interview, survey, and other data.
- Creates a collaborative partnership that can help in securing funding.

SERVICE LEARNING // BENEFITS FOR THE COMMUNITY

- Enhances positive relationships with the university.
- Provides awareness-building of community issues, agencies, and constituents.
- Provides scientific innovations to tackle sustainability problems.
- Creates ways to expand current services by providing both technical and research support, actual onsite work.

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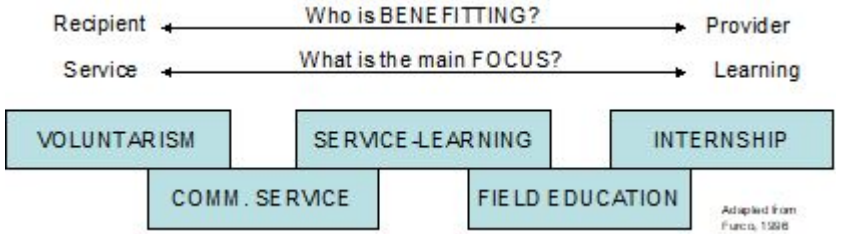
SERVICE LEARNING (SL) // ORIENTATION

- Method of **experiential** education, linking courses with local society actos/businesses
- SL asks students, to implement theory in **practice**
- Helps to understand and **reflect** complex topics on various scales
- Reflection and **reciprocity** are central concepts of service learning



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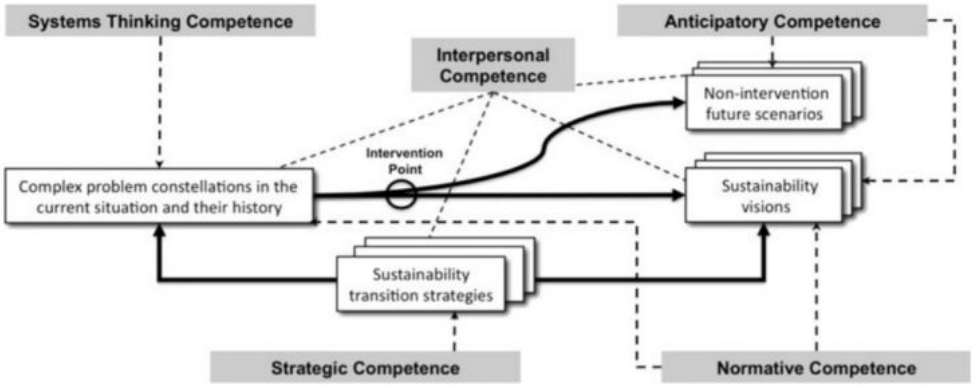
SERVICE LEARNING // OUTCOME

- **Engagement** in society is fostered, networks and connections are created
- **Holistic** perspective is aimed
- **Individual** personal development
- Communication skills and group **competencies**
- Awareness of complexity, problem analysis skills, critical thinking and cognitive development
- **Capacity development** for enhancing change



Key competencies in sustainability
(Wiek et.al, 2011)

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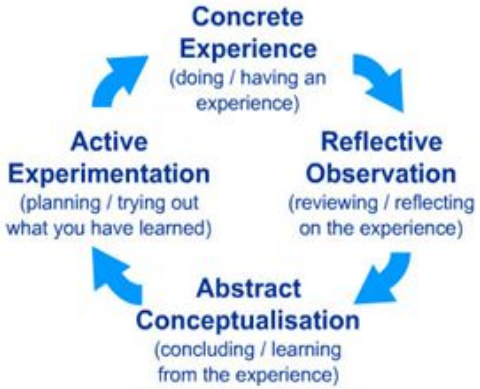
SERVICE LEARNING // OUTCOME

- Learning does not necessarily come from the experience of service alone, but from reflection on and creating meaning from that experience
- Students learn and grow as they feel and think about service experiences (i.e., through behavior, affect and cognition). Because learning begins with behavior, students gain efficacy and self-direction
- Service-learning empowers youth to become service-oriented citizens and leaders
- Students who serve develop communication and leadership skills which aid in their ability to apply what they learn to the “real world”
- Service-learning participation has an impact on such academic outcomes as demonstrated complexity of understanding, problem analysis, critical thinking, and cognitive development
- Service-learning contributes to career development

SERVICE LEARNING // INVOLVES 4 PHASES

- Preparation
- Action
- Reflection
- Evaluation



The Experiential Learning Cycle
Kolb (1984)

Learning does not necessarily come from the experience of service alone, but from **reflection** on and **creating meaning** from that experience

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SERVICE LEARNING // PARTNERS CAN BE …

- …can be companies, associations, NGOs or public bodies

- **Tasks project partners:** contact person for student group, personal meetings in work environment, presentation work field (current challenges), continuous feedback process

- **Focus of cooperation**: not only output is important but learning process, learning from each other, talk about expectations, progress etc.

SERVICE LEARNING APPLIED

The sustainability Challenge is a course provided by WU-RCE Vienna and puts service learning into practice.

It is a free elective for all fields of study of seven participating universities in Austria, Graz, Salzburg and Vienna. Students work in interdisciplinary teams on projects together with partnering businesses/institutions.

For more information check out the website: https://sc.rce-vienna.at/

Sustainability Challenge

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SECTION 5

FURTHER READING MATERIAL

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WE CHERRY-PICKED SOME MIND BLOWING READINGS FOR YOU

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Or check out our website:
https://greenskills4cities.eu/

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