Sustainability Thesis Slam
Institute for Marketing and Customer Insight

Oliver Brockschmidt

From insight to impact.
**Today's Reality:**
- **Customer Pressure**: Increasing concern about environmental protection & CSR (Chen, 2008)
- **Financial Pressure**: Positive impact of realizing a sustainable brand image (Frank 2021, Ulke & Schons 2016)
- **Political Pressure**: Government rules and regulations (=costs)

Companies are faced with the question of how rather than whether to implement sustainability. (Epstein & Roy, 2001; Dagelico & Pujardi, 2010)

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**The Key Problem:**
*Many companies undertake major efforts to establish a sustainable brand image but are still not perceived as such!*

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**Step 1: Who is successful?**

*Sustainability Image of Brands in Switzerland*
- Ranking of brand image perceptions.
- Analyzing management practices & customer perceptions.

**Step 2: How to be successful?**

*Sustainability Strategies in B2B brand management*
- How can brands from a dirty industry transform into a sustainable brand?
Sustainability Strategies in (B2B) Brand Management

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Institute of Computer Science

Kimberly Garcia

From insight to impact.
The Problem

Sustainability managers in charge of making decisions to reach their organization’s goals on GHG emissions face a set of systematic challenges, such as:

- Data is scattered across different data sources
- Finding and choosing the right data source requires specialized domain knowledge
- Data sources are semantically different ( incompatible data sources → need specialist on the database)
- Choosing, understanding and applying the must suitable LCA method requires up-to-date domain knowledge

Sustainability assessments performed by experts are expensive. Thus, not performed with high periodicity.

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The Solution: WISER

Web of Interoperable digital services for knowledge on decarbonization pathways

WISER will:

- Create an interoperability data layer that allows seamless access to heterogenous data sources
- Offer a one-stop-shop to trusted GHG emission data sources and LCA methods
- Present contextualized information on GHG emission in an understandable and usable way (dashboards) for reporting & auditing

Contextualized, up-to-date, and reliable data on GHG emissions for public institutions and private actors to initiate or improve their sustainability actions

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Writing Your Thesis in the Field of Sustainability Education

An Option: University Instructor’s Sustainability-related Understandings, Attitudes and Actions

Prof. Dr. Bernadette Dilger & Dr. Stefan T. Siegel
bernadette.dilger@unisg.ch stefan.siegel@unisg.ch
Learning Outcomes

Overall: Developments in Society, Academic Disciplines, Self-Concept

Research Areas in Sustainability Education

(1) What (future) competencies do university instructors / faculty and students need?
(2) What are relevant prerequisites in students and instructors? (e.g., University Instructor’s sustainability-related Understandings, Attitudes, and Actions)
(3) How to foster and train sustainability-related competencies?
(4) How can we develop study programs further?
(5) How should (higher) educational systems change?

Methodological Designs

- Empirical and theoretical research designs are welcome!
- The methodological designs depend on the research question!

Next Steps

1. Formulate up to two research ideas
2. Meet us for an in-person talk
3. Define a concrete research question
4. Develop a research proposal (question, relevance, research design, the expected form of results, first papers used
5. Meet us for an in-person talk
6. Official application
7. Ongoing supervision (in-person or online)

*For Master-Thesis: get approval from your Master-Program
Chair for Sustainability Management

Judith Walls and Gift Dembetembe

From insight to impact.
Research Areas

- Corporate governance and sustainability
- Microfoundations of sustainability transformation
- Sustainability strategy for organizations and stakeholders
- Systems thinking and circular economy strategies
Chair of Management of Renewable Energies

Rolf Wüstenhagen

From insight to impact.
Climate change is a defining challenge of our times

The Chair of Management of Renewable Energies contributes to the global Race to Zero by identifying effective decarbonization strategies for energy and transport.
Research areas

Social acceptance  Solar mobility  Investment risk  Path dependence
ITEM – Division of Production Management

Daniel Wörner

From insight to impact.
A new sustainability paradigm drives the market towards an even more sustainable consciousness within the manufacturing industry

Motivation

The new sustainability paradigm ... … is formed by key elements

Future business environment of manufacturing industry will change fundamentally due to ...

Perspective | Key elements
---|---
End customer behavior | • Rising interest to preserve the environment by end customers
| • Changing purchasing preferences are causing a shift in the value chain
Regulatory foundation | • Governments and international bodies introduce stricter regulations on environmental standards
| • Tighter regulation on product safety, non-degradable plastics, emissions, packaging material, products and machinery
Emerging Technologies | • New innovations in machinery, materials and software solutions (e.g., 3D printing, predictive maintenance) are creating additional opportunities during the utilization phase of machinery
Shareholder perception | • Shareholders seek for sustainable investment options that fulfill customer needs and preserve both social and environmental aspects
| • Raising awareness and caution regarding long-term effects of investments creating a new perspective on the relationships along the value chain (consumers, providers, and suppliers)
At ITEM-HSG we support manufacturing companies on a variety of topics to foster sustainability in industrial markets

Overview of Topics

Possible topics that we tackle within our team SMAS:

1. **End-of-Life**
   - **Analysis of machinery base** according to different EoL scenarios and applicability of 4-R’s (reuse, remanufacturing, recycling and refurbishment/retrofit)
   - **Evaluating options of strategic alliances** with ecosystem partners enabling implementation and adoption of sustainable practices (e.g., recycling processes)
   - **Outlining use of products & machinery towards sustainable approaches**: (1) add or remove product & machinery features; (2) productivity boost with a simple & cost-effective upgrade; (3) availability increase with upgrades adding functions & features to push uptime

2. **Ecosystem Partners**
   - **Service Design**
     - **Evaluating and defining service design options**: (1) use, installation and maintenance services prolonging lifetime; (2) monitoring and tracking of product health status through IoT-solutions (supporting field service network to provide technical assistance & other services such as spare part management as well as repair more targeted)
     - **Designing a more service-oriented business model** rather than a material goods-oriented business model
     - **Analyzing and understand specific customer needs according to different segments (designing sustainable services & product offering)**

3. **Product Features**
   - **Product-life Extension**
     - **Identifying possible sustainable strategies** enhancing product-life extension: (1) ease of maintenance and repair; (2) upgradability and adaptability; (3) standardization and compatibility; (4) dis- and reassembly
   - **Sustainable Offering**
     - **Analyzing specific customer needs** according to different segments and matching it towards a more sustainable offering in an early stage
   - **Product Design**
     - **Understanding product design techniques** for product portfolio: (1) design for reliability and durability; (2) design for modularity (customizable products by design, functions, and use); (3) design for maintenance (easy dis-assembly)

4. **Service Design**
   - **Cleaner Production**
     - **Understanding adoption of cleaner production strategies and practices** (zero waste program, integration of circulating materials)
   - **Manufacturing Process**
     - **Identifying approaches to efficiently use manufacturing tools and consumables**
   - **Sustainable Production**
     - **Analyzing strategies towards a sustainable design within production** (low scrap rate or loss rate)
The End-of-Life phase embraces several questions of how to deal with old machines of the installed base.

**Deep-Dive: End-of-Life**

<table>
<thead>
<tr>
<th>Work Packages</th>
<th>Develop End-of-Life Scenarios</th>
<th>Draft Business Case</th>
<th>Define Ecosystem leveraging full potential</th>
<th>Set up Operating Model</th>
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<tbody>
<tr>
<td>Diagnostic activities</td>
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<tr>
<td>Analysis of EoL scenarios</td>
<td>Identify all input parameters to calculate a holistic business case for the different EoL scenarios</td>
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<tr>
<td>Identification of parameter logic</td>
<td>Anayze EoL scenarios and value creation potential for old machines (reuse, refurbish, remanufacture, recycle or disposal)</td>
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<tr>
<td>Examination of processes</td>
<td></td>
<td>Evaluation of capabilities for executing the different EoL scenarios alone</td>
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<td>Investigate processes and capabilities for the EoL scenarios (dependent on machine condition and type)</td>
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<td>Cross-Examination</td>
<td>Check internal and external feasibility of the suggested sustainable business model (incl. proposed ecosystem)</td>
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<td>Design activities</td>
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<td>Expert Feedback</td>
<td>Obtain feedback from experts to derive the next steps for implementing the sustainable business model</td>
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<tr>
<td>Development of scenarios</td>
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<td>Feasibility of business model</td>
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<tr>
<td>Develop possible EoL scenarios for old machines</td>
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<tr>
<td>Calculation of scenarios</td>
<td>Evaluate current capacity and capabilities for executing the different EoL scenarios</td>
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<tr>
<td>Calculate business case for different EoL scenarios</td>
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<tr>
<td>Rationality of scenarios</td>
<td>Propose recommendations for strategic partnerships and how to set up an underlying ecosystem</td>
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<td>Develop recommendations for choosing EoL scenarios based on different input parameters of old machines</td>
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<tr>
<td>Assessment of ecosystem</td>
<td>Evaluate and develop draft for the overall sustainable business model within the ecosystem</td>
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<td>Evaluate and develop draft for the overall sustainable business model within the ecosystem</td>
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<tr>
<td>Recommendation for partners and ecosystem</td>
<td>Propose recommendations for strategic partnerships and how to set up an underlying ecosystem</td>
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<tr>
<td>Expert Feedback</td>
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**Deliverables**

- Definition of feasible business scenarios
- Evaluation of business case for scenarios
- Rationality of scenarios
- Definition of business scenarios
- Calculation of scenarios
- Evaluation of capabilities
- Cross-Examination
- Expert Feedback
- Feasibility of business model
- Recommendation of alliance
- Coherency of business model
- Proposal of operating model
- Suggest operating model to implement to the business model in the context

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EoL: End-of-Life

University of St. Gallen | Institute of Technology Management | Competence Center Smart Services
Contact Details
Please do not hesitate to contact us if you have any questions

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Center for Disability and Integration

Tarek Carls

From insight to impact.
What we do @ CDI

- Inclusive Work
  - Health
  - Inclusion
  - Digitalization
  - Disability
  - Organizational Behavior
  - Diversity
Our project partners

...and others
We offer a master’s thesis in cooperation with AUDI AG

Focus: inclusion and performance evaluation of workers with disability in working teams

Starting May 2022

Financial compensation available for master's students throughout the project

Contact me directly after the presentation or via email: tarek.carls@unisg.ch
WRITE YOUR THESIS WITH US!

(Sustainable) Corporate Governance

- What parts of the governance systems contribute to sustainable development?
- Review and synthesis of contemporary sustainability accounting research

Corporate Reporting

- Development of the Materiality Matrix in Integrated Reporting
- Analysis of the accounting treatment of climate risks in IFRS financial statements

Auditing

- Recent financial accounting scandals and their impact on the company environment and regulatory development
- Technology in audit

ESG-Ratings / Sustainable Finance

- Critical comparison of ESG ratings with regard to their methodology and rating judgement
- The EU Taxonomy for Defining Sustainable Investments - A Critical Appraisal

Join us for a conversation!

Alexander Sigg, M.Sc. 
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Andreas Weyer, M.Sc. 
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Scan me!
Chair for Strategic Management

Karolin Frankenberger

From insight to impact.
We focus on the promising alternative to today’s linearly functioning economic systems: the circular economy.

The focus is on the innovation potential of business models within the circular economy. Businesses that operate as part of a circular economy can react to the changing environmental problems groundbreaking. The goal is to recognize the sociopolitical and ecological changes and create resource-friendly and sustainable value with new business models.

Questions that keep us busy:

**Circular ecosystems**
- How do circular business models interact to create circular value propositions across companies?

**Circular business models**
- How do companies design their business models to produce the most durable and circular products with low material input?

**Sustainable transformation**
- What do managers and teams need to implement a circular economy at the organizational level successfully?
Swiss Institute of Banking and Finance

Martin Nerlinger

From insight to impact.
Fit For Sustainable Finance

Sustainable Finance

I. Value and Ethics

II. Risk Management

III. Systemic and Economic Sustainability

IV. Fiduciary Duty and Engagement

V. Financial Performance

„The social responsibility of business is to increase its profits“ – Friedman (1970) Shareholder Theory

„Great companies endure because they manage to get stakeholder interest aligned“ – Freeman (2010) Stakeholder Theory

„Roughly 90% of studies find a nonnegative ESG–CFP relation. More importantly, the large majority of studies reports positive findings“ – Friede et al. (2015)

„Unburnable carbon: Are the world’s financial markets carrying a carbon bubble?“ – Carbon Tracker (2011)

„We focus on sustainability not because we’re environmentalists, but because we are capitalists and fiduciaries to our clients“ – Larry Fink (2022)

Physical & Transitory Risks

Social cost of carbon
Costs of action: 1% GDP
Costs of inaction: 5% -20% GDP – Stern (2006)

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Physical & Transitory Risks

Social cost of carbon
Costs of action: 1% GDP
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Competence Center for Social Innovation

Dino Darmonski

From insight to impact.
The Competence Center for Social Innovation at the University of St. Gallen (CSI-HSG) catalyzes social innovation and strives towards systems change.

Applications for theses via mail: dino.darmonski@unisg.ch
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Potential of action research for social innovation from a business school perspective (Tobias Fehr-Bosshard)

Cross-sector partnerships for development: How businesses and development agencies collaborate for impact (Rahel Meyer)

Open Social Innovation to extend democracy: How administrations use collective intelligence to tackle societal challenges (Dino Darmonski)

Regime complexity & state-society relations in the context of social innovation (Prof. PhD Dirk Lehmkuhl)

BA-Theses (examples)

- European Green Deal: Turning Point to the First Climate-Neutral Continent?

MA-Theses (examples)

- Scaling-up Affordable Housing Delivery in Rwanda Exploring the Potential of Microfranchising

- Challenges in cross-cultural project management: Towards understanding the role of culture in international cooperation in Sub-Saharan Africa

- The case for NGOs in impact investing - How could Swiss non-governmental organisations use impact investing to leverage mission-aligned impact?
Competence Centre for Diversity & Inclusion

Theresa Goop

From insight to impact.
How to create a sustainable work force?

Our channel: employers
We measure diversity & inclusion and accompany firms on their D&I journey

CCDI offers

- St. Gallen Diversity Benchmarking
- Wage analyses
- Focus groups / employee surveys
- Unconscious Bias / Inclusive Leadership Training
- HR process analyses

**CCDI offers**

- **D&I Status Quo**
- **Comparison** to peers and best practice exchange
- Concrete recommendations
- Gender Intelligence Report

- Standard analyses based on the confederation’s method (Logib)
- Advanced analyses
- Certificate “We pay fair”

- Raising awareness and training for employees and leaders
- Overcoming prejudices for better decision making

- Analysis of causes for unconscious biases in decision processes
- Recommendations for process enhancements

- Measure inclusion culture
- Systematic analysis of the employee perspective

© Competence Centre for Diversity & Inclusion 16 March 2022
ACA-HSG, the Institute for Accounting, Controlling and Auditing: all about Accounting and Finance, and CFO responsibilities.

<table>
<thead>
<tr>
<th>Area</th>
<th>Head</th>
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<tbody>
<tr>
<td>Accounting</td>
<td>Prof. Dr. Tami Dinh</td>
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<tr>
<td>Accounting and Taxation</td>
<td>Prof. Dr. Arthur Stenzel</td>
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<tr>
<td>Auditing</td>
<td>Prof. Dr. Florian Eugster</td>
</tr>
<tr>
<td>Audit and Accounting</td>
<td>Prof. Dr. Peter Leibfried</td>
</tr>
<tr>
<td>Performance Management / Management Control</td>
<td>Prof. Dr. Klaus Möller</td>
</tr>
<tr>
<td>Corporate Finance</td>
<td>Prof. Dr. Marc Arnold</td>
</tr>
<tr>
<td>Financial Management</td>
<td>Prof. Dr. Dirk Schäfer</td>
</tr>
<tr>
<td>Financial Institutions</td>
<td>Prof. Dr. Andreas Blumer</td>
</tr>
<tr>
<td>Internal Control / Internal Audit</td>
<td>Prof. T. Flemming Ruud, PhD</td>
</tr>
<tr>
<td>Service Performance Management</td>
<td>Prof. Dr. Matthias Mitterlechner</td>
</tr>
<tr>
<td>Aug 2022: Sustainability (50% ACA, 50% IWÖ)</td>
<td>Prof. Dr. Judith Ströhle</td>
</tr>
</tbody>
</table>
Sustainability is important at all levels of ACA’s topic and CFO’s responsibility, at least indirectly.

Meet me at the stand: the business of electricity storage for upcoming electricity shortage during winter months.
Master’s in International Affairs and Governance (MIA)

Valentin Rossi, Leonardo Lagli and Daniel Oteromoreno

From insight to impact.
Master’s in International Affairs and Governance (MIA) @HSG

A brief insight
3 MIA-Theses in Sustainability

Conducted by
Daniel Otero
Valentin Rossi
Leonardo Laglia

Business and Industry
• Information asymmetry & market failure
• Digitalization as enabler of coordination - technology-enabled circular economy
• Qualitative analysis of competing interests in ecosystem

Politics, civil society & RE
• Energy transition in Switzerland and how to drive it forward
• Effective communication strategy for the approval of RE projects
• Qualitative comparison of groups pro and against RE

Multilateral Climate Finance
• Emergence of a complex climate finance system
• Multilateral Development Banks (MDBs) as relevant channel for contributions
• Quantitative comparison of developed countries’ climate finance flows
Master’s in International Affairs and Governance (MIA) @HSG

**Interdisciplinarity**
- International Law
- Business Strategy
- International Politics
- Market Economy

**Specialization Options**
- Sustainability & Development
- Business & Public Policy
- Democracy & Governance
- Security & Conflict

**Excellent Career Prospects**
- Private & Public Sector
- Non-Profit Organizations

Pictures: google
China Competence Center

Tomas Casas Klett

From insight to impact.
Introduction to macro-level sustainability: The Elite Quality Index (EQx)

- Elite quality is an analytical framework designed to facilitate sustainable and inclusive value creation at the national level.
- High-quality policies can value creation business models that give back more to society than they take. The EQx is an aggregate of sustainable value creation by entities in the economy.

Key findings of research stream

- In Casas & Cozzl (2003) the internationally comparative ranking of economies according to value creation criteria for 107 indicators for 554 was successfully released. The EQx2002 will be released in April with 123 indicators.
- EQx country accounts have been used by leading economists across the world to interpret long-term prospects and structural reform needs.
- In Debold (2022), we conduct a global uncertainty and sensitivity analysis (UA and SA) of the EQx methodological and first and total order sensitivity indices using state-of-the-art estimators, giving us the comprehensiveness of the EQx.
- In Debold (2022), we conduct a global uncertainty and sensitivity analysis (UA and SA) of the EQx methodological and first and total order sensitivity indices using state-of-the-art estimators, giving us the comprehensiveness of the EQx.
- The EQx2022 project is led by the University of Zurich, and all the elite quality project partners are from around the world.

Relevance:

- Benchmarking for elite business model transformation and economic reforms aiming at institutional change and the incentive system.

Outcomes: EQx reports a robust and original conceptual architecture.

Introduction to firm-level sustainability: Value creation framework and metrics

- The project will develop a formal assessment of a firm’s ability to sustainably create value. The sustainability framework (stage 1) will be followed by an assessment system and metrics (stage 2), and sustainability reports (stage 3).
- The aim is to address academic criticisms of incorrect corporate governance, CSR, and ESG concepts and their applications to practice. These have been long and are not seen as effective methodologies. During global crises, omitting societal value creation, failing to deliver on grand promises, being a device for greenwashing, oversimplifying social problems, or a lack of comprehensiveness.

Fundamental concept:

- Sustainability is value creation. Sustainability is to be based on the value creation framework (stage 1) assessed for a given firm’s business model.
- The business model based on original value creation (such as innovation, trade, production, or productivity enhancement) or on the appropriation of value not created through subsidies, tax privileges, beneficial tariffs, discriminatory practices,...
- The aim is to develop a novel dataset and tools for financial markets - both equity and debt - by fundamentally redefining the equity valuation process and the probabilities of default.
- The financial, metrics, and reports will ultimately be used by firms, investors, and regulators to support sustainable value creation.

Acknowledgements

The EQx team, Ueli Debold, Alix Tarrus, Camille Zeiler, Nihal Gupta, Lisa Schurter and all the elite quality project partners from around the world.

References

Chair of Media and Culture

Veronica Barassi
Get-together: Walk, talk and exchange

THANK YOU!