

**Wicked Problems need Virtuous Solutions -
Normative Innovation
to Establish Sustainable Value Networks**



» Introduction /// *Looking back into the history of innovation management we see a shift from process, product and service to business model innovation.*

4. Business Models

Establish new ways to create and capture such value reinventing and combining components such as brand, pricing, partnerships, & technologies, e.g. iTunes. **Focus on strategic differentiation.**

3. Services

Introduce new service products, processes or firms as „major users, carriers and promoters of many classes of innovative hardware“ (Miles 1993), e.g. in pharmaceuticals.

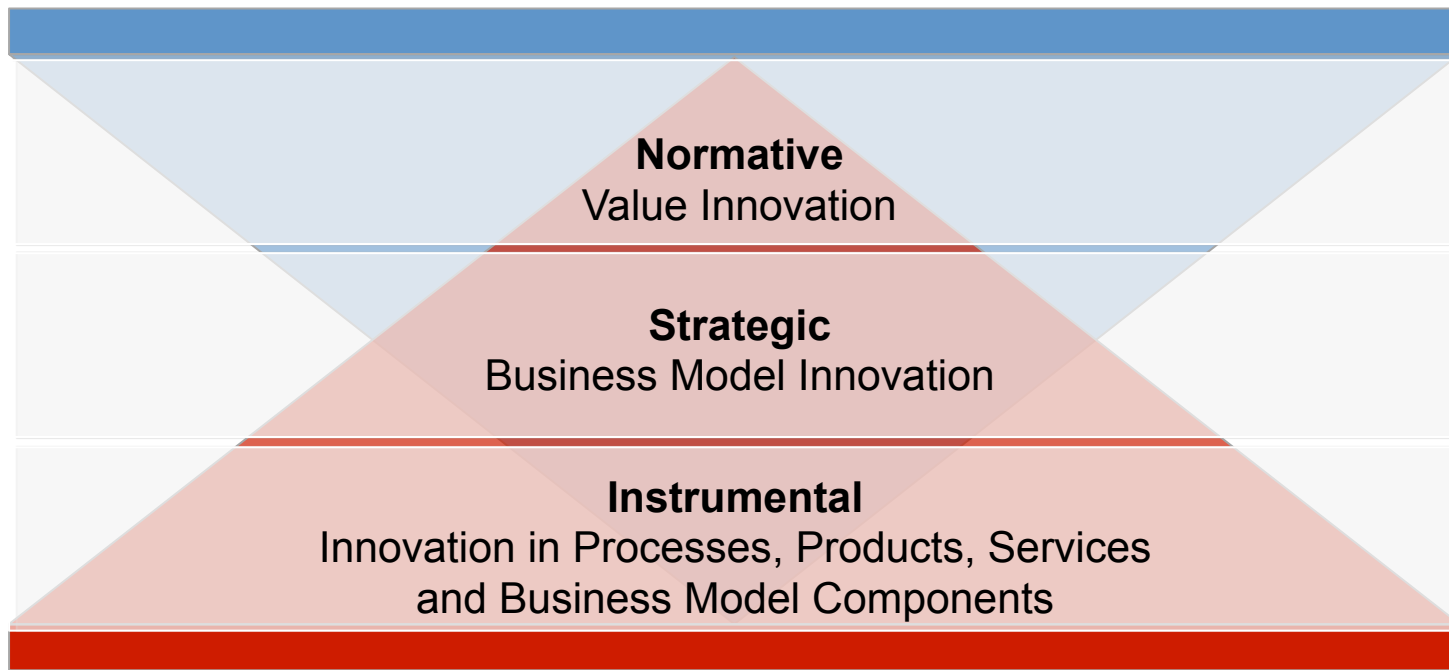
2. Products

Design and market new products, e.g. digital cameras, MP3 player, or a motion controller for video games.

1. Process

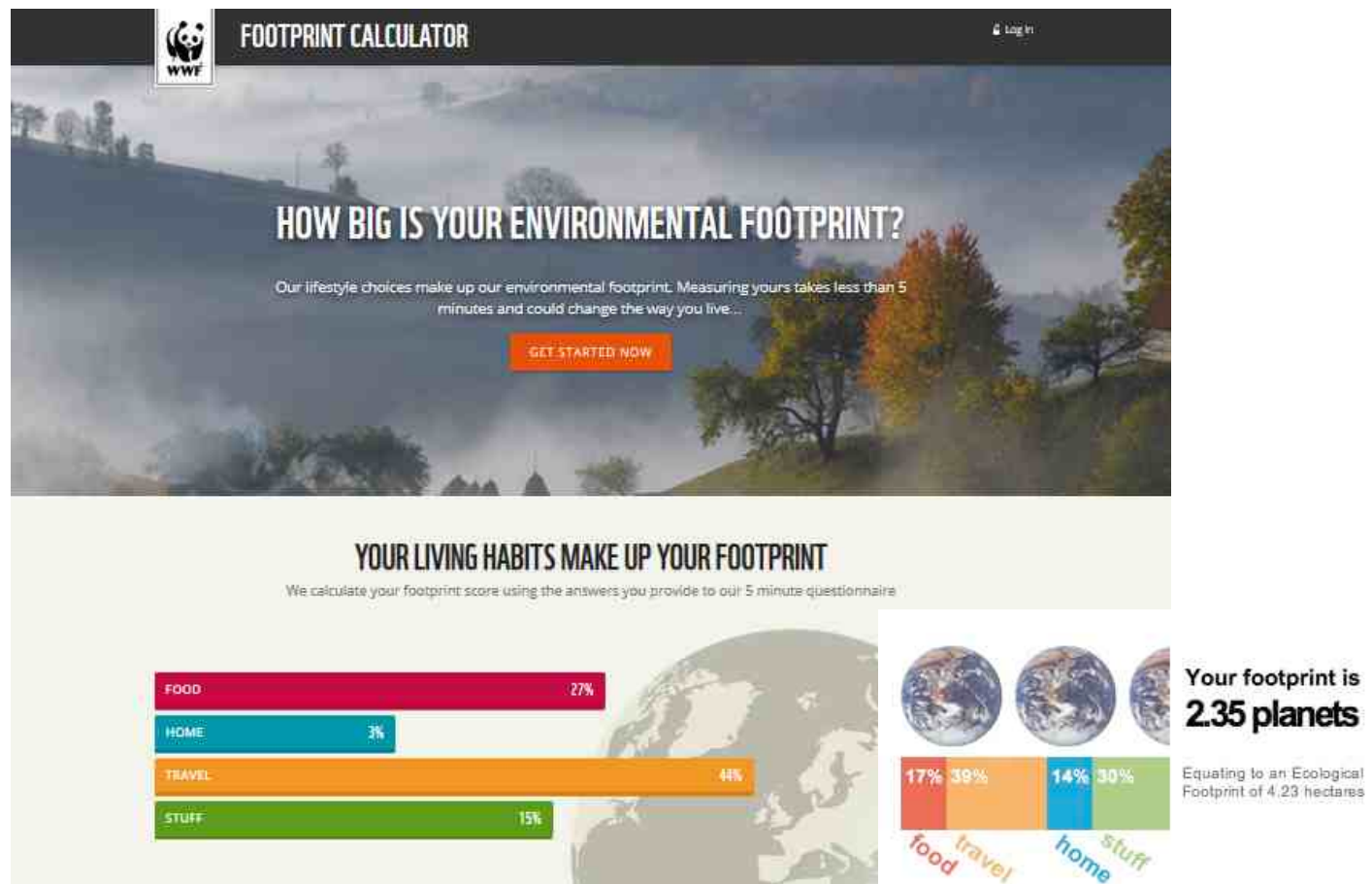
Implementation of a new or significantly improved production or delivery method, e.g. Fords production line or 2D barcodes

- » Introduction /// *Focussing on strategic differentiation the role of normative orientations in triggering and directing innovation has been neglected.*



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- » Case III On an instrumental level we see green products and services such as a carbon footprint calculator to measure & reduce environmental impact.



/// Wicked Problems need Virtuous Solutions, from <http://footprint.wwf.org.uk/>

» Case III On a strategic level new business models emerge introducing change across multiple components.



/// Wicked Problems need Virtuous Solutions; from Ideation at Telekom Innovation Laboratories 2008

» Introduction /// *But focus on competitive advantages does not suffice to address wicked problems such as unsustainable energy systems. What comes next?*

- **Normative Innovation** builds on the introduction of new normative orientations into an existing business ecosystem. This includes:
 - Going beyond "egocentric" models (into the business ecosystem),
 - reflecting upon normative orientations (e.g. on safety or sustainability),
 - and proceeding iteratively.

- ***WHAT does it look like and HOW to facilitate and manage normative innovation?***
A case from the energy business helped us to illustrate the normative approach and to advance existing tools.

» Introduction /// *On a normative level societal trends meet individual aspiration.*



/// Images from: farm3.static.flickr.com & www.kengarffvolvosaltlake.com/safety.htm

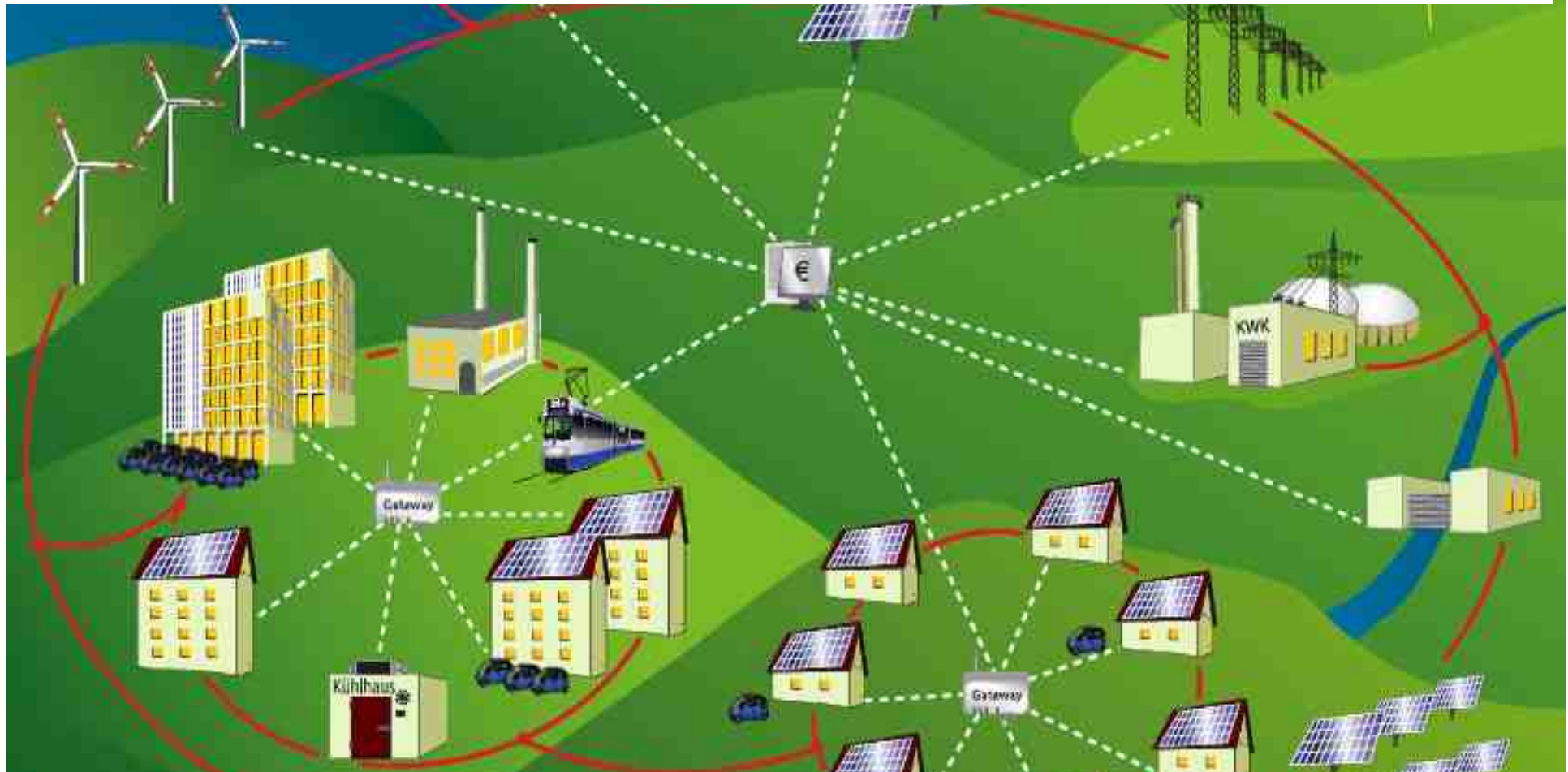
» Introduction /// *On a normative level societal trends meet individual aspiration.*

- Corning developed “Chemcor” glass in the **1960ies** to enhance safety in automobile windshields, but could not enter the market. “Americans were having such a love affair with their cars that safety was not an issue” (Howard). “**Safety does not sell.**”
- After European companies like Swedish Volvo succeeded in the **1980ies** in the UK and the US with safety as a key value proposition, all car manufacturers incorporated safety as a key value for their innovation efforts.
- Until today Volvo starts its presentation of **values** by quoting its founders Assar Gabrielsson and Gustav Larson (1927): “Cars are driven by people. The guiding principle behind everything we make at Volvo, therefore, is and must remain, safety” (<http://www.volvocars.com/ly/top/about/values>).

» Introduction /// *To “innovate for sustainability” we need to go beyond strategic differentiation into normative value innovation.*

- **Wicked problems** are poorly formulated, confusing, and involve many different actors with conflicting values, asking for collaborative approaches and adaptation by interconnected partners (Waddock, 2013).
- The **sustainable turnaround in the energy industry** is such a problem, currently missing economic solutions, structured stakeholder dialogue and suitable innovation formats.
- Energy utility business models are **missing cross-industry innovation** based on different actors' strengths like regional presence, customer access, and infrastructure competencies (Engelke and Graebig, 2013).
- *How to drive business model innovation in (and how to develop) networks where value emerges from the distributed activities of different actors, instead of being centred on a focal actor and value proposition?*

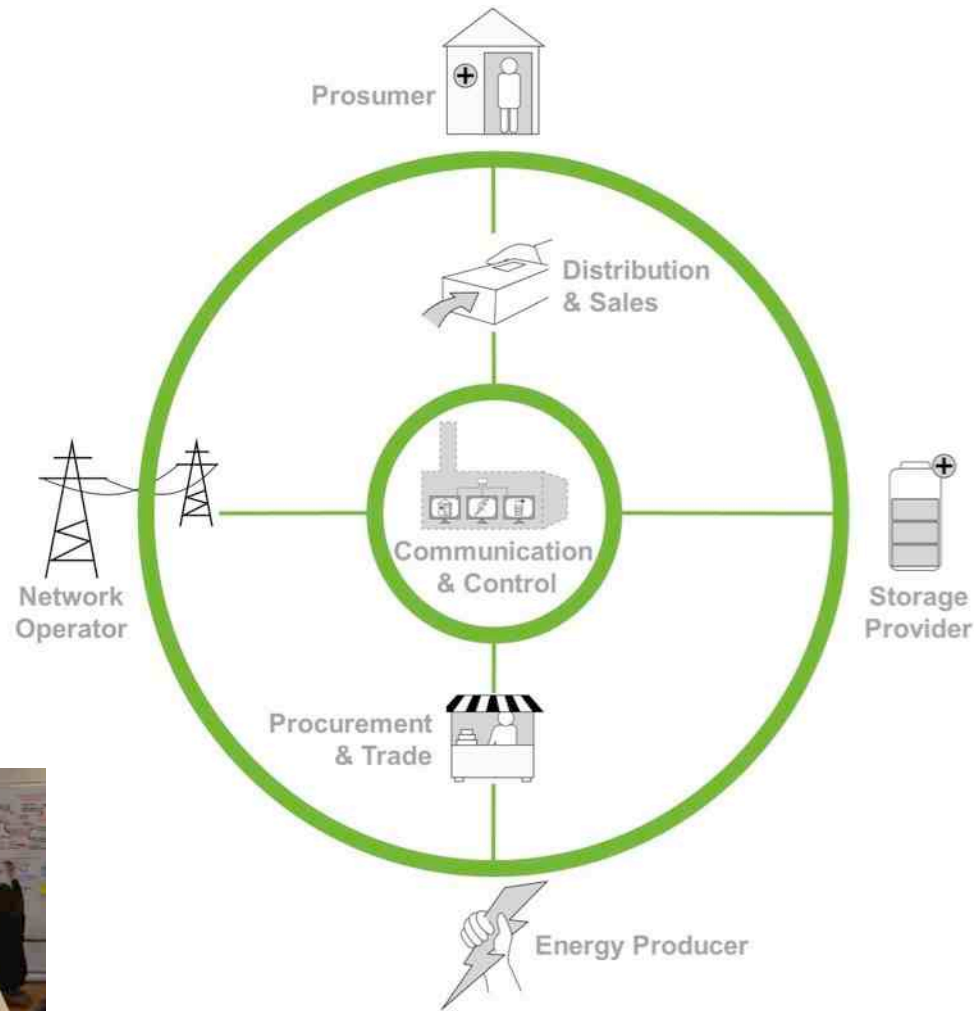
» Case III On a normative level value innovation builds on the introduction of new normative orientations into an existing business ecosystem.



How to develop networks where value emerges from the distributed activities of different actors, instead of being centred on a focal actor and value proposition?

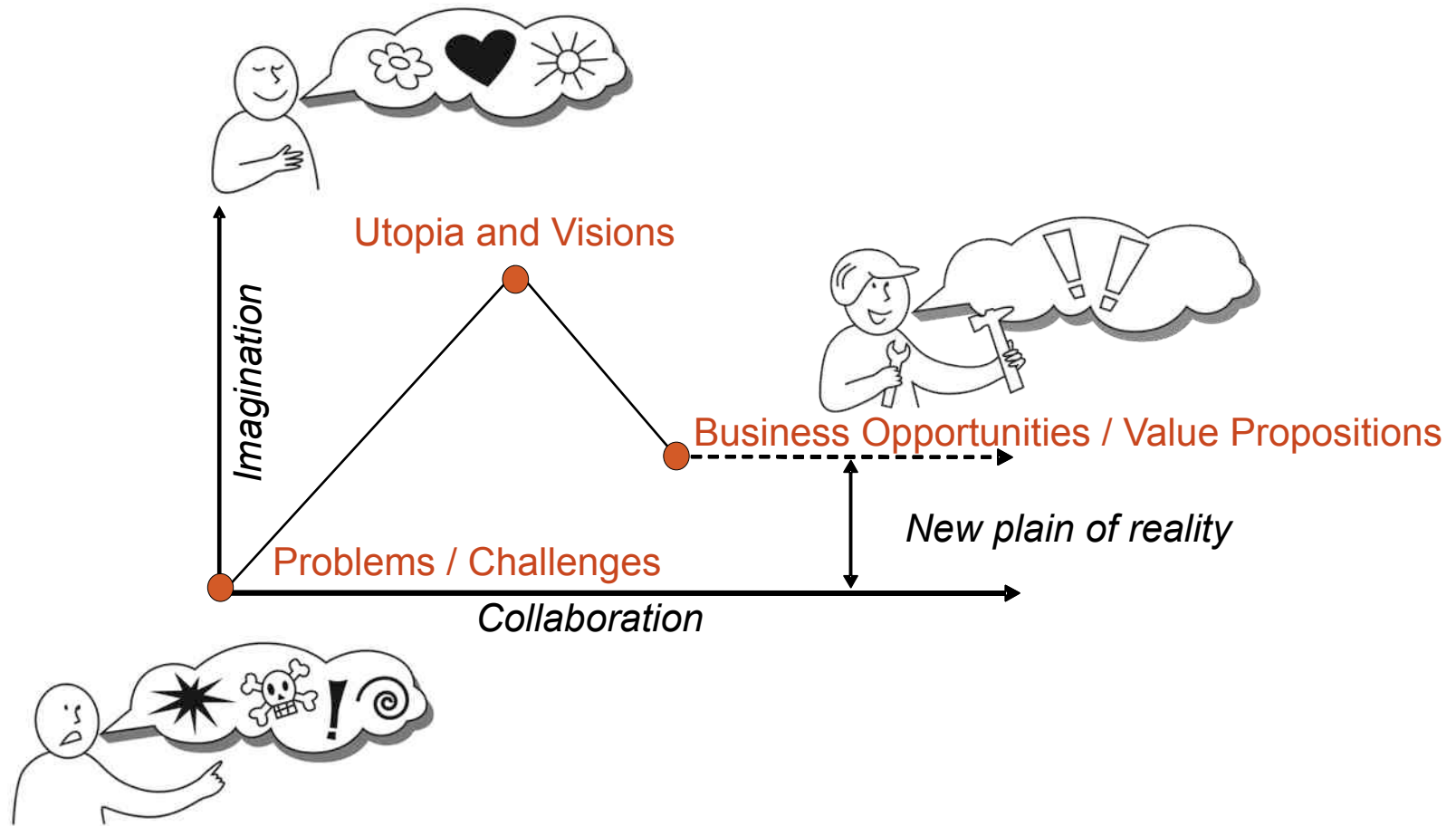
How to design future energy markets? How may renewable energy contribute to regional self-sufficiency? Which potentials emerge for entrepreneurial action? How may these potentials be realised? [Image: <http://mitreden.buergerdialog-bmbf.de>]

» Case III For three stakeholders we focused on value propositions and business models to establish a sustainable energy market.



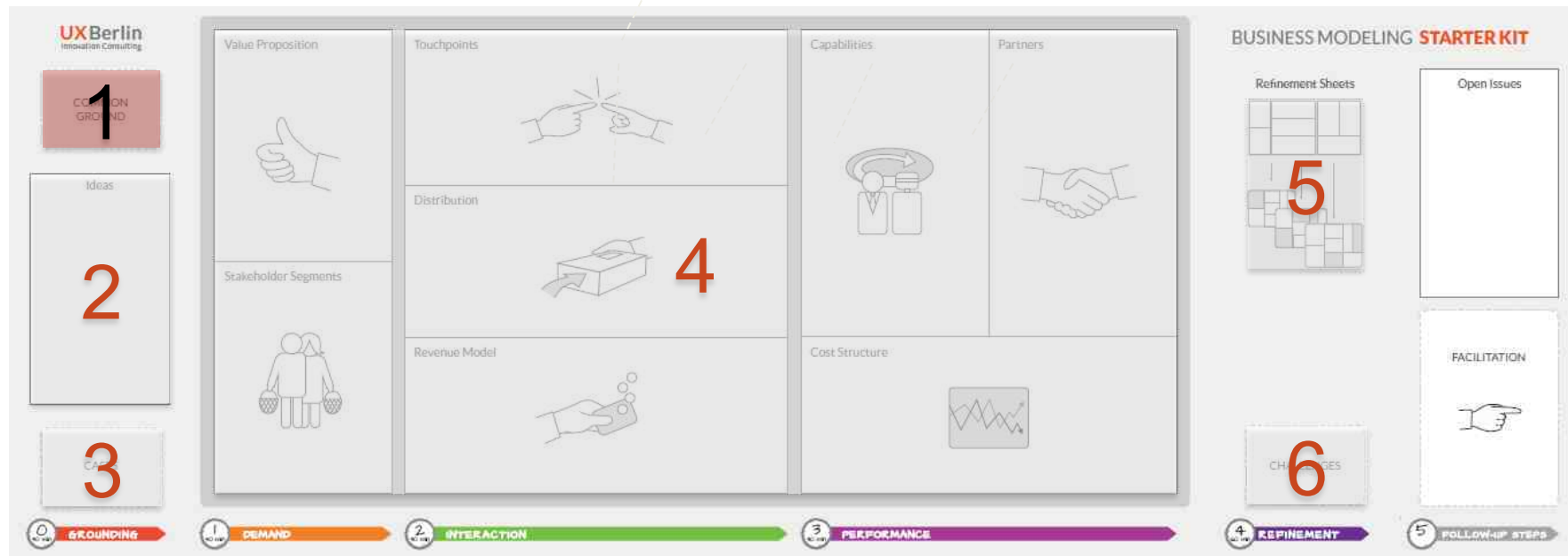
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» Case /// Workshop facilitation combined a futures workshop to create a normative vision with ...



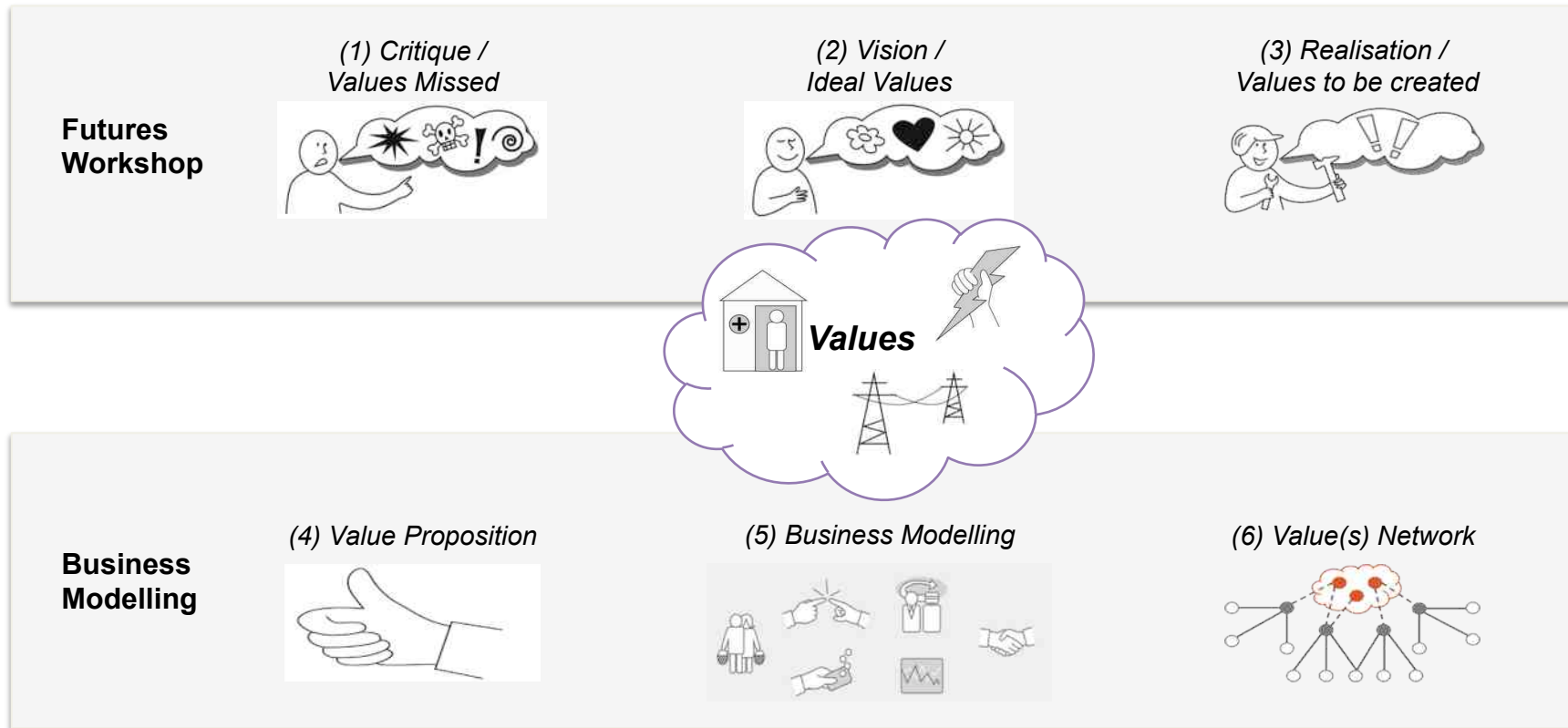
/// adapted from Kuhnt & Müllert 1996

» Case III ... five steps of definition, exemplification, ideation, modelling, and challenging assumptions.



/// Wicked Problems need Virtuous Solutions; see www.uxberlin.com/businessinnovationkit

» Case III *Key values such as independence, transparency, efficiency, and proximity provided an evolving reference point.*



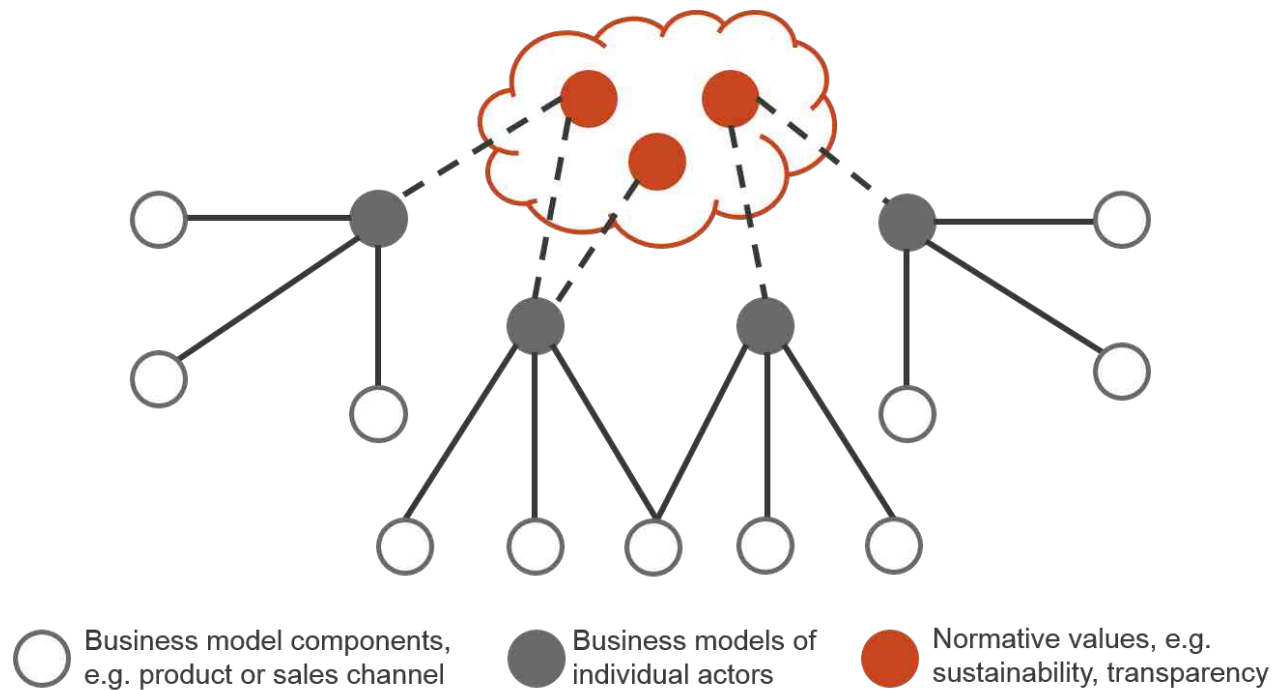
/// Wicked Problems need Virtuous Solutions

» Case III *Shared values and parallel creation of new business models promoted mutual tolerance for negative impacts on some actor's business.*

		<i>Network Actors</i>		
		<i>Prosumers</i>	<i>Energy Producers</i>	<i>Network Operators</i>
<i>Innovation Levels</i>	<i>Values</i>	Regional sustainability, education and independence	Regional sustainability, innovation and independence	(Cross-)Regional sustainability and education to drive innovation
	<i>Business Model</i>	Local energy community	Financial equity participation	Agency for virtual power plants
	<i>Components</i>	Advanced storage technology and trade platform	Partnering in marketing, finance & operation	Repurposing consulting capabilities

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» Tools */// Sustainability may become a driver for innovation on normative, strategic and instrumental management levels.*

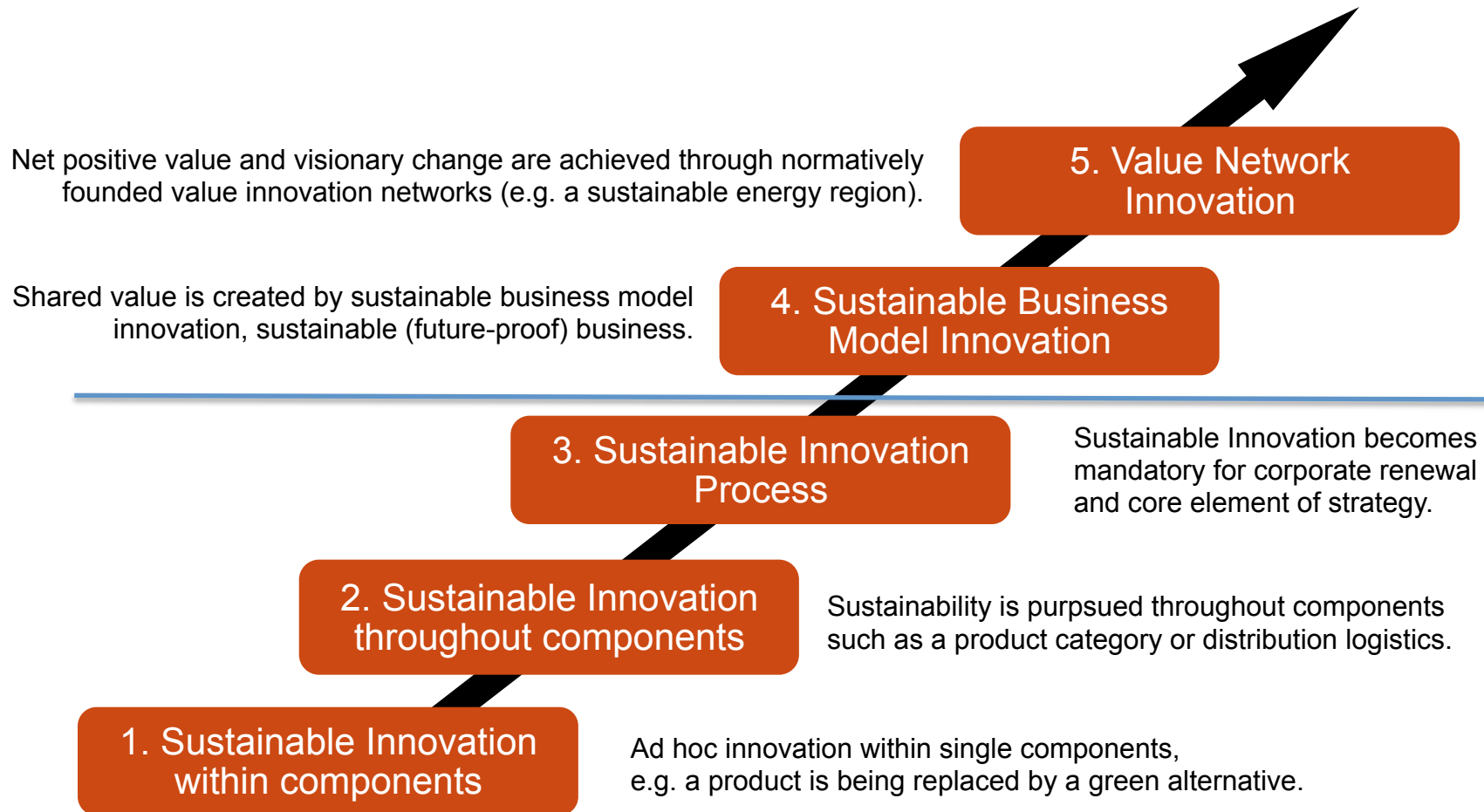


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» Tools /// Card Sets for Grounding, Cases, Challenges and Moderation facilitate the specification of Sustainable Innovation Capabilities.



» Tools */// Existing tools need to be further developed to explore potentials of sustainable innovation.*

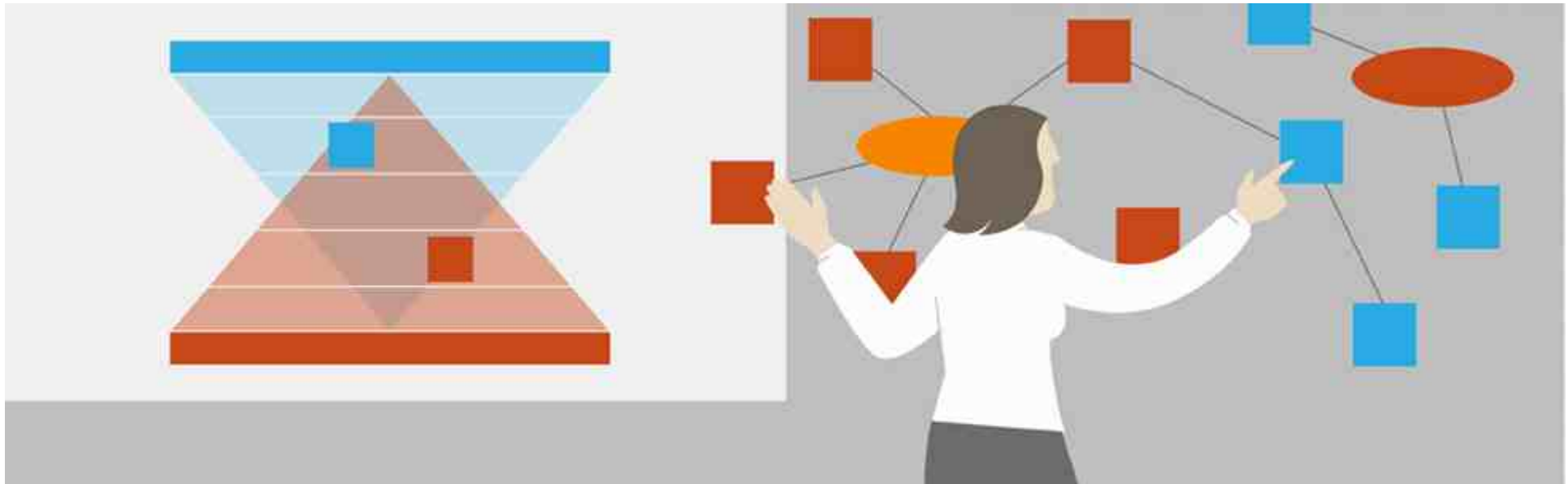


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» Lessons Learned /// *Theory, challenges and tools.*

- We need to differentiate between instrumental, strategic and **normative levels of innovation management**.
- The best starting point for systemic sustainability innovations lies on **value networks built on shared goals and values**.
- Applying business model innovation beyond single firms on the value network level allowed finding systemic approaches to a particular “wicked” problem, i.e. the introduction of a “new energy paradigm”, and means to foster sustainability.
- Complementary partnering in normatively founded value-oriented business networks is a promising avenue “innovating for sustainability”.
- Existing **tools** like the business innovation kit to facilitate and motivate sustainable business model innovation may be used to increase awareness of normative implications in business. These approaches should be further evaluated.

» Thank you for your attention!



Based on our paper: Breuer, H. & Lüdeke-Freund, F. (2014).

[Normative Innovation for Sustainable Business Models in Value Networks](#). in: Huizingh, K.; Conn, S.; Torkkeli, M. & Bitran, I. (Eds.): The [Proceedings of XXV ISPIIM Innovation Conference](#) – Innovation for Sustainable Economy and Society. Dublin, Ireland. (<http://ssrn.com/abstract=2442937>):

We thank our colleagues who supported the case study: Lars Holstenkamp & Jennifer Kowallik (Workshop Initiators), Dirc-Robert Wortley and Ulrike Mascherek (Co-Moderation UXBerlin), Gabriele Heinzl (Illustration and Graphic Recording) and the workshop participants from northern Germany.