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## Business Model Innovation in the Era of Sustainable Development Goals

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Henning Breuer\*

UXBerlin – Innovation Consulting & HMKW University of Applied Sciences for Media, Communication and Management  
Ackerstrasse 76, 13355 Berlin, Germany  
E-mail: [h.breuer@hmkw.de](mailto:h.breuer@hmkw.de)

Florian Lüdeke-Freund

ESCP Europe Business School,  
Chair for Corporate Sustainability,  
Heubnerweg 8-10, 14059 Berlin, Germany  
E-mail: [fluedeke-freund@escpeurope.eu](mailto:fluedeke-freund@escpeurope.eu)

Christoffer Brick

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH  
Reichpietschufer 20, 10785 Berlin, Germany  
E-mail [christoffer.brick@giz.de](mailto:christoffer.brick@giz.de)  
\* Corresponding author

**Abstract:** Business model innovation is increasingly discussed as an approach to address societal challenges, such as those formulated by the United Nations' Sustainable Development Goals (SDGs). The *lab of tomorrow (lot)* project facilitates business model innovation for the SDGs through collaborations between European companies and entrepreneurs from developing and emerging markets. However, a structured review of the initial experiences with the *lot* approach is missing. Furthermore, established management frameworks and concepts, such as corporate social responsibility or 'shared value', and conventional success measures fall short to adequately address, develop and evaluate business model innovation for the SDGs. In order to address these gaps, a review of the initial lessons learned with the *lot* approach and expert interviews with project participants are conducted. Secondly, we review and redefine basic innovation management concepts to communicate about and manage business model innovation for the SDGs in the particular context of development cooperation and propose a values-based approach to innovation and its management. Finally, we propose a new classification scheme for business model innovation for the SDGs, which includes dimensions such as type of innovation, business model readiness, scaling potential and business model patterns. We conclude with recommendations for innovation management and policy-making for development cooperation and the SDGs.

**Keywords:** Business model innovation, values-based innovation; sustainability; development cooperation; stakeholder management; start-up; sustainable entrepreneurship; classification of innovations; case study; sustainable development goals

“We must have the courage to strike out in new directions and embrace an economic model which is not only low-carbon and environmentally sustainable, but also turns poverty, inequality and lack of financial access into new market opportunities for smart, progressive, profit-oriented companies.” (Business & Sustainable Development Commission, 2017, 7)

## 1 Values-based innovation in development cooperation

New approaches to innovation and substantial engagement by diverse stakeholders are required to improve equity between current and future generations as well as between different regions of the world. Recent discourses on sustainable and responsible innovation (e.g. Owen et al. 2013), along with developments in the stakeholder and innovation management community (e.g. Freeman & Auster 2015), call for a values-based reframing of innovation theories and concepts to better meet upcoming challenges. In particular, business model innovation has already been practised (by companies like Aravind or Interface) and discussed (Breuer & Lüdeke-Freund 2017a, 2017b; Breuer, Fichter, Lüdeke-Freund & Tiemann 2018) as an approach to address societal challenges, such as those identified by the Sustainable Development Goals (SDGs) of the United Nations (2015).

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, a provider of international development cooperation (DC) services on behalf of the German government pursues the vision “to shape a future worth living around the world” (GIZ 2018). Its *lab of tomorrow* (2018) is facilitating new collaborations between European firms and entrepreneurs in developing and emerging countries to pursue the normative goals formulated as the UN’s SDGs. Forty-six joint prototypes explored the potentials of business model innovation for the SDGs in the context of international DC. However, popular frameworks, such as the “shared value” concept by Porter and Kramer (2011), and conventional measures to evaluate innovation and business success fall short of adequately addressing, developing and evaluating new business models that cater to the SDGs and the goals of international DC.

Initiatives like the *lab of tomorrow*, but also entrepreneurs who seek financial success by working on what they care about, are missing an appropriate theoretical framework and a consistent vocabulary to communicate about and advance their efforts. The framework of values-based innovation management (Breuer & Lüdeke-Freund 2017a) was formulated to describe and design innovation based on notions of the desirable, such as those expressed in the SDGs. It differs from traditional forms of innovation management by stressing the role of values throughout the innovation process, including but also transcending an orientation towards economic benefits and financial profit.

Values, in this context, do not refer to any eternal truth or tradition to be preserved, but to notions of the desirable – what every one of us considers important. Personal values, but also global normative frameworks such as the SDGs motivate and provide a new perspective and starting point to explore potentials for innovation. Work on values-based innovation management demonstrates the potential of values to integrate diverse stakeholders into innovation processes, to direct collaborative efforts and to generate innovations that matter – innovations that cater to what we really care about. Historical and current case studies demonstrate how innovation in processes, products, services, business models and even whole organisations and networks may be driven and guided by notions of the desirable (e.g. Breuer & Lüdeke-Freund 2017b).

In this paper, we discuss how to use and adapt the values-based view on innovation to describe, design and manage innovation for international DC between actors in industrialised and developing countries and emerging markets. International DC is a far-reaching, yet widely neglected application domain for innovation management, which bears the potential to provide new and meaningful solutions to some of the urgent problems of our time and in the future. While the values-based innovation framework seems to be a natural fit to the new DC approach pursued by the *lot*, this approach provokes new questions such as: How does the *lot* approach differ from previous approaches and instruments in development cooperation? What are the specific benefits, challenges and potential pitfalls for such an approach? What kind of support do participating entrepreneurs and companies need to achieve a positive impact on the SDGs?

We address these questions based on a review of the documentation of the initial 46 business model prototypes from the *lab of tomorrow*, using expert interviews with initiators and managers of the *lab of tomorrow* as primary data sources, and extend this review with a theoretical discussion of innovation management concepts in the context of DC.

We propose a basic vocabulary to communicate about and manage values-based business model innovation contributing to the SDGs in the context of development cooperation. We also provide a classification of values-based business models based on SDGs and point out promising ways to create new business catering to a sustainable development of the natural environment and society as a contribution to the growing field of sustainable business model research and practice (e.g. Boons & Lüdeke-Freund 2013; Lüdeke-Freund & Dembek 2017; Schaltegger et al. 2016). We also identify pitfalls and critical issues, for instance with respect to the normative framing of development and business challenges, motivating stakeholders and forming coalitions between them and estimating future impacts on the SDGs of new values-based business models.

Our results will help local entrepreneurs in developing and emerging countries as well as collaborating larger firms from Europe to master recurrent challenges and enable funding institutions to document, compare and evaluate new collaborative business initiatives for sustainable development. Finally, we discuss how the identified challenges and lessons learned in the realm of international development cooperation contribute to critical issues in general innovation management, such as managing diverse stakeholders and estimating innovation success based on prototypes.

## **2 The *lab of tomorrow (lot)* as a business-oriented development cooperation format**

Large-scale and high-impact innovation is needed in order to achieve normative goals. Following the lead of the United Nations and their Agenda 2030, active involvement of business actors and private investments to leverage public spending on the Sustainable Development Goals (SDGs) is required. We assume that the SDGs can only be achieved if companies adopt them as shared values that guide their business activities and innovate their core business to tackling the challenges of sustainable development. The United Nations Conference on Trade and Development estimates annual investment requirements of US\$ 5 to 7 trillion in all countries to achieve the SDGs, and sees an annual financing gap of US\$ 2.5 trillion particularly in developing countries (UNDP,

2018); considering the required infrastructure investments in water, agriculture, telecommunications, energy, transport, buildings, industrial and forestry sectors). Therefore, new policy frameworks, concepts and tools for international development cooperation are needed to motivate private sector investments in line with the SDGs.

The *lot* matches business partners from Europe and developing and emerging countries to jointly develop new business models derived from a local development challenge that is reframed as a shared business idea. This complements existing private sector cooperation approaches of the German Federal Ministry for Economic Cooperation and Development (BMZ) to follow the lead of the United Nations and the SDGs, which explicitly require active involvement of business actors (Business & Sustainable Development Commission, 2017).

Following the argumentation of the United Nations and the Business & Sustainable Development Commission, which was co-founded by Unilever's Paul Polman and includes leading global corporations, the SDGs can only be achieved if companies dedicate their core businesses to major issues of sustainable ecological and social development. But this also requires the willingness to move beyond business as usual: "This is new territory. Moving business to a sustainable growth model will be disruptive, with big risks as well as opportunities at stake. It will involve experimenting with new 'circular' and more agile business models and digital platforms that can grow exponentially to shape new social and environmental value chains." (Business & Sustainable Development Commission, 2017, 12) Furthermore, global trends such as population growth and increasing digitalisation change the economics in terms of competition in many industries and even whole national economies (e.g. due to automation, digitalisation or resource scarcities). These trends often demand flexible, industry-specific and business-driven solutions that complement traditional DC approaches.

Current DC instruments often involve companies as cooperation partners or contractors in projects for a limited period of time and are usually within the participating companies' current business model.. DC projects building on such partnerships run the risk of being limited in their spatial and temporal scope and impact, and, as a consequence, they are less attractive for private investors. But particularly private investments are needed to reach the SDGs (Business & Sustainable Development Commission, 2017; United Nations, 2015).

The *lot* aims to engage companies in a new way which increases the attractiveness and positive impact of DC partnerships with companies. Business activities are no longer seen as an "add-on", but as the major lever to address ecological and socio-economic development challenges in developing and emerging countries. Companies, as DC agents, are motivated to use their core business to address these development challenges. Contributions to the SDGs will result from activities that are "natural" to companies, i.e. to be innovative and cope with challenging environments to conduct their core business. To avoid mission drift or one-sided dominance of financial interests – which may stand against the needs of local stakeholders in developing and emerging countries – European companies team-up with local business partners and further stakeholders from these countries. Their cooperation is only possible if they agree on the means and ends of their joint business development, which requires the development of a common ground. This common ground can be shared values derived from the SDGs – leading to the creation of business models for sustainable development.

The development of such business models offers the GIZ the opportunity to play a new role. In addition to contracting companies as service providers for DC projects, the GIZ can act as a facilitator who matches companies from European and developing and emerging countries and helps them in identifying common interests and shared values. We assume that the GIZ can offer a framework within which companies can do what they are made for, according to modern, normative management theories: to create value for their stakeholders (e.g. Freeman 2010).

Characteristic for the *lot* process is its business-model-oriented, co-creation and user-centred approach. Business-model-oriented refers to the attempt to address development challenges by means of private sector cooperation between European firms and entrepreneurs and stakeholders in BMZ partner countries, who develop new business models together. Co-creation stresses the fact that the *lot* not only moderates dialogues between multiple stakeholders but initiates actual collaboration in solving relevant (local but potentially scalable) problems. User-centred refers to the ongoing participation of potential users and beneficiaries in the definition and design of solutions. *lot* participants run through a process composed of five workflows:

1. Challenge: Specific development challenges, which hold the potential to present business opportunities, are identified by GIZ in a developing or emerging country.
2. Research: User-centred research enriches the understanding of the challenge and its underlying causes. Findings are shared on the *lot* online platform, where anyone can access the material, discuss and enrich it. Based on these insights, sub-challenges are defined that will be targeted in an innovation workshop.
3. Ideate: In a three-day, user-centred innovation workshop, interdisciplinary teams create business solutions for specific sub-challenges, which includes understanding the challenge, developing new business ideas to solve the challenge and establishing a roadmap for putting business ideas into action.
4. Evaluate: For each sub-challenge, the most promising business idea developed in the workshop is carried forward to the test phase. The teams receive support for three months to evaluate the feasibility of their business ideas directly in the target country. Estimated impact and potential, unintended consequences of the new business must also be evaluated.
5. Test: Business ideas that pass the initial evaluation are implemented on a small scale in the target country to prove the viability of the new business model. At the end of the pilot phase the proof of concept exists and companies are able to access the required resources to operate.

### **3 Review of initial iterations and experiences with the *lab of tomorrow***

In this section, we review initial iterations and experiences with the *lab of tomorrow*. An analysis of secondary data and results from complementary expert interviews are described.

### *Methodology*

We used three empirical sources to review initial experiences with the *lab of tomorrow*: first, an internal documentation of lessons learned from the initial seven iterations of the lab process, and second, the documentation of the 46 business model prototypes that were created within the *lot* so far served as secondary data sources. Complementary, we conducted three expert interviews, one with the co-initiator of the *lot* and co-author of this paper (Christoffer Brick) and two with *lot* project managers that were responsible for managing different iterations of the lab process in different countries.

The purpose of such expert interviews is to gather experience-based knowledge (Bogner and Menz 2009). We used a half-structured interview format. Before such expert interviews, the interviewer has to acquire a suitable language and specify the topic to maintain an inspiring and informative interview situation. The documentation of lessons learned provided a valuable source to get an idea of some of the critical issues in the process, but the informants also elaborated upon additional issues during the conversations. We prepared an interview guide that covered essential topics, such as personal learning experiences throughout the development of the projects, with deep dives into the different phases of the process, the experts' understanding of key characteristics of the *lot* as a new approach to DC as well as critical issues of stakeholder management related to the *lot*. We scheduled each interview for one hour, recorded the conversation, partially transcribed and paraphrased the responses and identified key issues and compared lessons learned from the different respondents' perspectives. For the analysis of the interviews we created and filled a table listing the names of the respondents, the challenge or lesson learned they reported, the measure taken to address the challenge, an example (with or without quote) and an overarching topic that helped to prepare our discussion of core results. Following the distinction of Bogner and Menz (2009, 43ff), the interviews can be characterized as systematising expert interview with exploratory aspects, used to structure the investigated domain and generate hypotheses with experts. Core results from the interviews and critical issues reported by the three experts are discussed in the following.

For the scientific conceptualisation and application of the results to wider theory, which usually follows the identification and comparison of concepts from different interviews, we build on innovation management literature (chapter 4), its application to the challenges of development cooperation (chapter 5) and a classification of the documented *lot* business model prototypes (chapter 6).

### *Results from expert interviews*

Key issues derived from the expert interviews address the conceptual framing of the *lot* approach, the challenge of motivating participating companies, setting up reliable coalitions and estimating and evaluating future impacts of new business models. Christoffer Brick, one of the three initiators of the *lot* reports how the initial team was searching for faster processes that are independent from fixed time intervals and pose lower thresholds for companies to foster new collaborations with partners from developing countries. They reviewed concepts such as corporate social responsibility (CSR) and shared value (Porter & Kramer 2011) and took inspiration from initiatives like USAID ([www.usaid.gov/GlobalDevLab](http://www.usaid.gov/GlobalDevLab)) and design thinking methods. Whereas formerly established DC programmes typically motivated larger companies to apply for funding their projects that might contribute to DC programmes, the *lot* team took its own

expertise in development challenges and societal problems in partner countries as the starting point to trigger innovative solutions.

Several critical issues emerged, the first being how to conceptualise the new approach. We describe eight key issues as questions, briefly discuss lessons learned and an example or quote from the expert interviews.

- **Conceptual framing:** How to conceptualise and name the new approach to DC? The team experimented with different concepts (including CSR, shared value, co-creation, business model innovation) and learned about the specific implications of each. For instance, in one case talking to the CSR department was not very helpful as it was sensitive to development issues, but detached from the strategic core business and innovation activities within the company. The concept of shared value was adopted in order to focus on strategic CSR. However, we will discuss in how far this popular concept may be as seductive as delusive and should be replaced by the notion of “shared values” as starting point for sustainability-oriented business model innovation. In fact, our collaboration with GIZ on these issues and this paper were partially motivated by the need to clarify these fundamental concepts and the theoretical framework of the *lot*.
- **Challenge sourcing:** How to formulate challenges and match challenges and companies? Development challenges are derived from the SDGs and their formulation benefits from intimate knowledge of the problems in developing and emerging countries. Besides, each challenge needs to be embedded in an ongoing GIZ project in the partner country to leverage the existing network of stakeholders. However, development challenges need to be translated into business challenges that companies can and want to address as they recognise a market potential (e.g. there might be a market potential of providing access to medicine and diagnostics in Kenya, but not in southern Sudan, which might require other sources of financing). Early on, the *lot* team learned that companies are experts in finding new applications for their offerings and that this may relate to a specific, locally embedded challenge better than to a globally formulated call, for example to apply for collaboration projects in Africa. An exemplary challenge asked may Zambia increase its tax revenues by taxing SMEs, most of which are not registered but in “informal sectors”? A company that no one had expected volunteered to participate, namely a company that produces scales and cash registers for retail and that is therefore an expert for securely documenting and transferring tax relevant data. This case demonstrates the generative or heuristic potential of values-based innovation to reframe development challenges as business challenges.
- **Motivating companies:** How to motivate companies and stakeholders to participate? Whereas traditional DC programmes ask companies to issue a formal project proposal at given time slots, the *lot* lowered entry barriers through an open call for participation for company representatives and stakeholders from partner countries to collaborate during a three-day workshop. The generation of new, applied knowledge, rather than the mere exchange of market data, during these events proved to be of major relevance for the European companies. Representatives appreciated the possibility to gain a deeper understanding and new perspective on their own business, i.e. “to obtain new practical knowledge in how far my current business is applicable in new ways to a new context, and for new user groups” (Brick, from



expert interview). The challenge persists to attract participants for the workshops by means of advanced communication. Besides, the specific motivation heavily depends on the functions and individuals one is communicating with, some are driven by new business and revenue models or new ways of cost reduction by reducing CO<sub>2</sub> emissions, some are motivated by the pursuit of meaningful goals.

- **Handover points:** What is an appropriate point to end the lab and hand over the newly developed business models to the next phase of practical development? The *lot* team learned that just offering the innovation workshop to translate a development challenge into a new business model ideas does not suffice. A test and pilot phase in the partner country were added to provide additional support for the companies to develop their ideas further, i.e. to increase their maturity. Afterwards, some companies invested their own resources, but there is an investment gap to bridge the void between small, initial investments and investments needed to scale-up a new business model.
- **Mixed coalitions:** How to set up coalitions? For normative reasons (e.g. to avoid the impression of a post-colonial approach that aims at new markets for companies from industrialised countries) but also for practical reasons of higher commitment and reliability, it proved to be most successful to work with coalitions between entrepreneurs from developing and emerging countries and European firms.
- **Improving methods:** Which methodology, methods and techniques should be applied in the different *lot* phases? In every iteration several lessons were learned regarding the best methods to use. For instance, the human-centred design thinking approach, first focusing on problems before looking for solutions, provoked resistance by some of the participants. One European business partner complained that he had to “hide behind the design thinking approach”. He already had his solution to diverse problems, but felt as if he had to withhold it. Like him, also other participants might be unwilling to openly explore problems and new solutions in case they already have proven solutions that they just want to sell or multiply.
- **Team challenges:** What are the essential challenges for the teams? Essential challenges include, first, redefining the tasks and project goals and communicating the workshop results back into their home organisation that delegated them to participate in the workshop, second, to remotely structure the processes in the test and pilot phase, and third, challenges yet unknown to the *lot* team.
- **Impact estimation:** How to estimate impact when ex-post measures are not available? While an ex post measurement of impact is not viable, the *lot* experiments with new ways of estimating and evaluating the future impacts of new values-based business models catering to the SDGs. But how to integrate methods for impact estimation in the *lot* process, including the innovation workshop and up to the test and pilot phase, is an ongoing issue. One of the project managers reports that addressing the issue of impacts on the SDGs as an integral part of the business modelling exercise (as tools like the values-based Business Innovation Kit (UXBerlin, 2018) suggest), and not as a separate work package, already proved successful in weaving a values- and impact-driven way of thinking into the whole set of activities.

Based on these lessons learned and internal project reviews, next steps were identified to consolidate the approach and support the communication of its key characteristics to different stakeholders, including the project owner in the Federal Ministry for Economic Cooperation and Development, different organisational units within and partnering with GIZ, potentially interested companies and entrepreneurs in partner countries and further stakeholders. These next steps include a critical discussion and theoretical framing of the fundamental concepts for the *lot* and a re-interpretation of innovation management concepts for the context of development cooperation.

Until May 2018, seven “labs”, i.e. iterations of the *lab of tomorrow* took place, and 46 business model prototypes were developed. A classification scheme was needed to describe and compare the business model prototypes from the labs in a systematic manner and to facilitate their evaluation. It was developed based on a review of the already existing prototypes and a review of scientific sources on shared value, shared values and values-based innovation. Accordingly, the following sections describe the fundamental concepts (section 4) and the classification scheme (section 5), before we draw conclusions (section 6) and outline paths for future engagement of innovation managers in DC.

#### **4 Fundamental concepts**

In order to provide a shared frame of reference for the development, evaluation and communication about new business models in the context of DC we need to define several fundamental concepts. Initially the *lot* team considered notions of corporate social responsibility (CSR) and shared value creation (Porter & Kramer, 2006, 2011) as a suitable theoretical framing for its activities. However, through discussions and the review of initial experiences we learned that these notions tend to dissociate either from the core businesses of firms (which is a particular risk of CSR approaches) or from the normative and values-laden quality of DC challenges (which is a risk of purely strategic approaches such as Porter and Kramer’s shared value creation). Both approaches tend to inhibit a balanced view on the intersections of DC and business interests. Therefore, they fall short to adequately address, develop and evaluate new business models that aim to cater to the SDGs. Notions of shared values and values-based business model innovation seem to resonate more, and simultaneously, with the interests of both DC and business experts, as they motivate the search for shared normative foundations as an initial lever to drive joint business model innovation. In order to apply these concepts to DC, underlying concepts of business models, business model innovation, values-based innovation and business models for sustainable development need to be clarified.

Most of these concepts are not conclusively determined, and cannot be, because their meanings are often context-dependent, such as the culturally diverse interpretations of sustainable development around the globe. Therefore, we pursue a pragmatic approach with the aim of providing practically useful distinctions for the work of practitioners in DC. The following concepts and definitions are provided as a background for a system to classify business model prototypes. These concepts and corresponding distinctions must

- suit to the context of DC and support the evaluation of business model prototypes,
- be described precisely and accessibly enough to be understood and used by various readers, thus facilitating communication and

- be aligned with the scientific literature to benefit from academic exchange and a growing body of knowledge

A critical discussion of “shared value” (Porter & Kramer 2006; 2011) strategies that integrate social benefits into a traditional understanding of competitive advantage prepares the introduction of an alternative framework based on the notion of shared values framework (Breuer & Lüdeke-Freund 2017a). It applies shared values among stakeholders (instead of a competitive strategy of a focal firm) as a starting point and basic lever for business model innovation. We discuss and define related innovation management concepts for DC, and thereby prepare a classification system that is embedded within the dynamically growing discourse on business models for sustainable development. One useful resource to guide the collection and interpretation of innovation data is the so-called “Oslo Manual” published by the OECD (2005). It provides helpful definitions of innovation types (process, product, marketing and organisational innovations), innovation activities, and different aspects of innovative firms.

### *Shared value creation*

As a rather young management concept, creating shared value (CSV) has risen to remarkable prominence since it has been presented in Porter and Kramer’s (2011) Harvard Business Review article (it was discussed for the first time in Porter and Kramer, 2006). CSV is proposed as a management strategy that creates economic value for the firm in a way that also creates value for society by addressing its needs and challenges. Companies around the globe are adapting CSV, with prominent examples such as Coca Cola and Nestlé. Porter and Kramer define shared value as “policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates” (2011, 66). The instrumental logic that underpins CSV tells us that weaknesses and deficits in society and environment may impose risks and costs for companies, but also that these weaknesses and deficits present productivity and market growth opportunities. Every strategic decision related to social issues must therefore be viewed through a shared value lens – three strategies are proposed to do so (Porter & Kramer, 2011):

- Reconceive products and markets (e.g. serving disadvantaged markets and innovative products);
- Redefine productivity in the value chain (e.g. by addressing energy use or models for distribution); and/or
- Enable local cluster development (e.g. entering into partnerships with governments, NGOs etc.).

Companies can tailor these strategies according to their needs and should critically reflect on their strength and weaknesses to focus on the areas they are best equipped to influence. Dembek et al. (2016) establish some of the potential business outcomes of CSV to include profit (e.g. via sales, savings or productivity), access to resources (e.g. raw materials or employees) and an improved competitive position. Societal outcomes include better quality of the natural environment, improved living conditions and welfare, as well as improved income (e.g. through employment, savings or entrepreneurial activities).

Although the win-win approach of CSV is intuitively appealing and might be useful in addressing companies' self-interest, we have to consider what CSV is actually not about: Shared value is not about "sharing" the value already created by firms – a redistribution approach. Instead, it is about expanding the total pool of economic and social value" (Porter & Kramer, 2011, 65). CSV is about leveraging connections between social and economic progress to expand the total pool of economic and social value to share among multiple stakeholders. Value is measured by benefits relative to costs, not benefits alone, which means that both social and business value are always measured relative to costs (Awale & Rowlinson, 2014). Social value creation is considered positive improvements in social issues targeted by a company's business (e.g. health and education) as well as societal outcomes or changes achieved. Business value is the actual economic benefits to the firm such as profits, access to resources or improved competitive position (Dembek et al., 2016).

"...shared value is not social responsibility, philanthropy, or even sustainability, but a new way to achieve economic success ..." (Porter & Kramer, 2011, 64). Despite the authors' claim, CSV is characterised by a significant overlap with the more mature notions of CSR and corporate sustainability, which has been critically reviewed and discussed by Crane et al. (2014). Therefore, we are careful not to fall into line with the spreading use of CSV in spaces where CSR or corporate sustainability have been, and still are, helpful in analysing and organising the role of business in society – despite the particular shortcomings of these concepts, which we also have to accept (see the comparison of CSV, CSR and corporate sustainability in Lüdeke-Freund et al., 2016).

"Shared value, then, is not about personal values." (Porter & Kramer, 2011, 65) The conceptual boundaries of CSV include economic and societal benefits relative to the costs of CSV activities, improved competitiveness and the strategic and profit goals of a company and ways to achieve these by means of joint company and community value creation (ibid., 76). Obviously, CSV is not about ecological and social value creation for the sake of positive contributions to the natural environment and society in itself. CSV is therefore not responsive to the values of the various stakeholders that are necessarily part of shared value creation. Values, understood as notions of the desirable that lead to certain beliefs, attitudes and finally behaviour (Breuer & Lüdeke-Freund, 2017a), are crucial to understand the needs of stakeholders. But since CSV follows an instrumental logic, serving a narrowly defined purpose of business (Crane et al., 2014), it follows that values as such are not considered.

The CSV concept can serve as a communication tool to gain the attention of entrepreneurs and managers to participate in the *lot*. However, to explore the potential of the *lot* prototypes to contribute to development cooperation and achieving the SDGs, further concepts, such as values-based innovation and business models for sustainable development, are required. These are more appropriate to cover the normative dimension implied in all innovation activities (Breuer & Lüdeke-Freund 2017a).

### *Business model innovation based on shared values*

In order to adequately communicate about, and to address the challenges the new approach to DC as it is represented by the *lot* project we propose to refer to shared values represented by the SDGs, and specified through development challenges. The values-based innovation approach takes values of different stakeholders as a starting point and guideline for an exploration of new business models for sustainable development. In

order to clarify these terms, and to prepare a suitable classification system, the notions of business model innovation, values-based innovation and values-based business model innovation for sustainable development are discussed.

*Business model innovation:* Since the beginning of the new millennium, the discourse on business models and business model innovation has been extending the traditional focus on innovation in processes, products and services. Business model innovation is of high strategic relevance for organisations. Based on reviewing and synthesising major publications, we define a business model as follows:

- “A business model is a representation of organisational value creation (how value propositions are made), value delivery (how value propositions reach and unfold for respective customers and further stakeholders), and value capture (how the focal company and its customers and further stakeholders obtain net value from their interaction).” (Breuer & Lüdeke-Freund, 2017a, 122)
- Building on this definition, we can define “... business model innovation as modifications of existing as well as the introduction of new forms of value creation, delivery and capture, leading to new qualities and/or new configurations of business model components” (ibid.)

Business model innovation differs from instrumental innovations (e.g. in processes or products) in that it is a more systems-oriented approach, aiming at deliberate changes to how companies create value (Wirtz et al., 2016). As a consequence, business model innovation deals with comprehensive activity systems, bringing together various tasks such as supplier identification and recruitment, value proposition design, development of new customer channels, new revenue models and many more (Breuer, 2013; Zott et al., 2011). There is no straight line between process, product and business model innovation. Often, one leads to the other, and entrepreneurs and managers must decide whether they want to, or have to, innovate on the level of a single process, product or service, or on the level of the business model in which these are embedded. Innovation in business models can be pursued in at least three different ways (Breuer & Lüdeke-Freund 2017a, 135f):

- First, new business models can be developed based on new value propositions. Value propositions address customer values, often in the narrow sense of economic benefits or use value for the customer, but also with respect to more existential customer values such as comfort, health or safety.
- Second, values held within the organisation can drive innovation in multiple, interdependent business model components such as distribution channels, customer touchpoints or cost structures. Companies pursuing sustainability values may seek ways to reduce their negative ecological and social impacts (e.g. by reducing the costs of waste management or redesigning supply chains in socially inclusive and eco-efficient ways).
- Third, innovation in whole business models and their value creation logic can be pursued as a means to address societal problems and ideals such as those expressed in the SDGs. In this case, values are clarified and their integrative, directive and/or heuristic functions are applied to design, review and configure business model components until new business models are found. Doing so, solving societal

problems or working towards societal ideals can turn into new rationales of economic value creation and capture.

*Values-based business model innovation for sustainable development:* The need to ensure a societal purpose of innovation is not always seen as a requirement for innovation to be successful, but it is self-evident in the context of development cooperation (DC), where political goals define the objectives for collaborative innovation activities. Exploration and identification of potentially shared values and normative frames such as the SDGs allow companies and organizations to reveal new levers for innovation. That is, values and their codification within normative declaration may create a common ground explore new business opportunities, to create new markets and to experiment with new business models.

Values-based innovation builds on understanding and applying values and normative orientations as a basis for innovation. This new view on innovation has been defined as follows: “Values-based innovation refers to values, i.e. notions of the desirable, held by individuals or a social group that provide a basis for inspiring, directing and evaluating innovation. That is, values may fulfil integrative, directive and generative functions for and within innovation projects” (Breuer & Lüdeke-Freund, 2017a, 7). Paying close attention to values offers integrative, directive and generative potentials for innovation. Values-based innovation management facilitates innovation processes starting with values and normative orientations that provide the heuristics for finding solutions, set directives for decision-making and enable integration of diverse stakeholders.

Organisational values have been defined as “[i]mportant concerns and goals that are shared by most of the people in a group, that tend to shape group behaviour, and that often persist over time even with changes in group membership” (Kotter & Heskett, 2011, 5). Research indicates that companies which actively engage for values also tend to outperform others in terms of financial and innovation performance (Bart & Pujari, 2007; Manohar & Pandit, 2014; Van Lee et al., 2005). Additional advantages of values-based management and sustainability-oriented engagement may result from improved performance and attractiveness for (potential) employees, reduced risks and capital market costs (cf., Schaltegger et al., 2012).

The collaborative exploration and elaboration of values become essential exercises in innovation management. Such an approach is capable of achieving impact beyond the individual company into the value networks and business ecosystems they are embedded in – an approach that has a lot in common with the *lot* approach. While such networks have previously been conceptualised as networks of stakeholders in relation to a company, values-based innovation unfolds a view on networks that emerge around a collaborative exploration and elaboration of values and normative orientations – such as the values and voluntarily established normative orientations of entrepreneurs and companies from developing and emerging countries and their European partners. Shared values may provide a common ground among these actors and their diverse interests in operational or even strategic terms within or even beyond the individual company.

Even though all companies and business actors pursue values beyond economic value creation, only few explicitly work with these values to drive innovation, and achieve positive effects on innovations performance (Manohar & Pandit, 2014). Among those are companies such as IBM, Interface and Aravind (Breuer & Lüdeke-Freund 2017a). One outstanding example is Aravind, an Indian for-profit eye care provider that successfully introduced process, product and service innovation and a new social-freemium business

model. However, one needs to recur to the values of the founder and their formulation in Aravind's normative mission "to eliminate needless blindness" in order to understand (and successfully implement) these innovations.

Values deliberately made explicit and obligatory within a project (e.g. one *lot* prototype) or organisation turn into normative orientations for innovation in processes, products, services, business models and networks of cooperating parties. Therefore, the values-based approach has also been elaborated on the levels of instrumental, strategic and normative management. "Values-based instrumental innovation refers to a consideration of customer and other stakeholder values that lead to innovation in processes, products and services, as well as other marketing instruments (such as pricing or communication)" (Breuer & Lüdeke-Freund, 2017a, 90). "Values-based strategic innovation changes the preconditions of an organisation's competitive advantage and its strategic goals based on the introduction of new values and normative orientations into the strategic management dimension" (ibid., 123). "Values-based normative innovation redefines the values, aspirations and the identity of an organisation and/or a network of organisations, leading to new norms, principles and strategies" (Breuer & Lüdeke-Freund, ibid., 151).

This bears the potential to direct and foster innovation in addition to thinking in terms of competitive advantages and strategic market differentiation that strategists and innovators are usually concerned with (Breuer & Lüdeke-Freund, 2017a). Rather than restricting innovation endeavours through a narrow focus on competitive advantages, the values-based approach invites to explore opportunities within and beyond the given strategy, i.e. asking which additional goals can be reached within a competitive strategy (which resembles the shared value approach by Porter & Kramer, 2011) and exploring which new opportunities arise once new stakeholder values and normative orientations are considered. Striving for ecological and social sustainability or aiming to fulfil (selected) SDGs can serve as such an orientation. For example, addressing health challenges in developing countries can turn out to be the right thing to do from a stakeholder perspective, and at the same it can offer a new business opportunity or an opportunity to learn how to innovate and conduct business under adverse conditions (e.g. in terms of access to resources), which in turn can help a health company to perform better in other markets.

A mandatory requirement for any *lot* project is a contribution to (selected) SDGs as well as regional development capabilities, i.e. adding value to different forms of capital (natural, social and relationship, human, intellectual, financial and manufactured capitals). Ideally, successful *lot* projects also provide blueprints (respectively business model patterns, see below) that may be applied in further countries (scalability). As such, the *lot* approach and resulting new business models for sustainable development are a new way of contributing, through values-based business, to DC.

*Business models for sustainable development:* Current research shows a diversity of orientations that business models can follow to contribute to solving ecological, social, and economic problems. Major orientations are, for example, to support the diffusion of new and clean technologies, social and inclusive innovations and new organisational forms (Boons & Lüdeke-Freund, 2013). These orientations are normatively grounded in the belief that concepts such as sustainable development or ecological and social justice should guide the development of business models. Thus, a business model for sustainable development is about creating significantly increased positive effects and/or significantly

reduced negative effects for the natural environment and society through the way an organisation and its network create, deliver and capture value (Stubbs & Cocklin, 2008; Wells, 2013). This approach has recently been defined as follows: “A business model for sustainability helps describing, analyzing, managing and communicating (i) a company’s sustainable value proposition to its customers and all other stakeholders, (ii) how it creates and delivers this value and (iii) how it captures economic value while maintaining or regenerating natural, social and economic capital beyond its organisational boundaries” (Schaltegger et al., 2016, 6).

At the heart of such a business model is a sustainable value proposition that goes beyond a mere customer value proposition. A sustainable value proposition is an offering, a bundle of benefits proposed to customers and further stakeholders, based on a product and/or a service. It is valuable not only to a company’s primary and paying customers but also to its other stakeholders. The notion of a sustainable value proposition has been defined recently by Patala et al. (2016, 1) as “a promise on the economic, environmental and social benefits that a firm’s offering delivers to customers and society at large, considering both short-term profits and long-term sustainability.” This definition adds to that of a business model for sustainable development. By changing, and in some cases innovating, their business models and value propositions, companies can find ways to reconnect social and environmental value creation with profitability.

*Business model innovation for sustainable development:* The concept of business model innovation for sustainable development is just emerging. It builds on a different normative foundation than traditional concepts approaches, namely that companies have a central role to play in securing a sustainable development of the natural environment and human society, and it therefore emphasises the need to harmonise the development (not just survival) of companies and (not just within) their ecological and social environments (Schaltegger et al., 2016).

The vision of, and need for, a sustainable development of the natural environment and human society as originally proposed by the Brundtland Commission (WCED, 1987) has been reformulated several times, often in an attempt to propose more positive and motivating concepts such as “flourishing” (Ehrenfeld & Hoffman, 2013) or “thrivability” (Russell, 2013), which emphasise the opportunities for human development and the positive sides of aiming for a flourishing or thriving world. Although we acknowledge these attempts to stimulate fresh and forward-looking perspectives, we keep using the concept of sustainable development and its business counterpart corporate sustainability as we think these are strong and comprehensive ways of framing the ecological and social challenges and opportunities of mankind in general and the business world in particular.

Building on a review of definitions proposed in the literature (Al-Saleh & Mahroum, 2015; Bocken et al., 2014; Laukkanen & Patala, 2014) and linking back to our definition of a business model for SD, we define business model innovation for SD as follows: Business model innovation for sustainable development improves a company’s ability to maintain, regenerate or develop natural, social and economic capital beyond its organisational boundaries by offering new, or changing existing, value propositions for its customers and all other stakeholders and/or the way how value is created, delivered and captured.

This definition is outcome oriented. It is about improved organisational abilities and their consequences for the capitals that relate to the natural, social and economic environments, and that society and the economy depend on. Achieving such outcomes

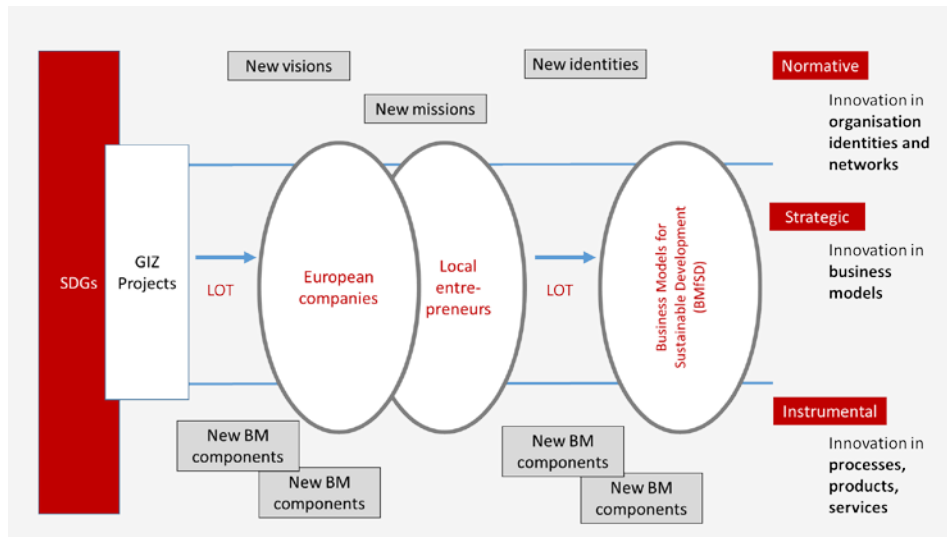


requires appropriate guidance throughout business model development processes. This guidance should make sure that, first, an entrepreneurial approach to DC is supported, i.e. enabling and empowering local entrepreneurs and companies without solely relying on more traditional approaches such as financial transfer programmes, and second, that the resulting collaborative business models are directly related to certain SDGs. Instead, entrepreneurial attitudes and potentials are encouraged and supported (financially and process-oriented), not only in developing and emerging countries but also in European firms and through “intrapreneurs” who try to extend the established boundaries of corporate engagement.

#### *Values-based innovation management for development cooperation*

This review of business model innovation concepts for sustainable development in the context of DC builds on the idea of values-based innovation in that it distinguishes the instrumental, strategic and normative management levels on which values and normative orientations (derived from the SDGs) can motivate and guide innovations (figure 1). The *lot* with its emphasis on business models focuses mainly on the strategic level but does also facilitate innovations on the instrumental and normative levels. Regarding the instrumental level, new marketing instruments or other business model components are introduced. On the strategic level new and collaborative business models are established. Organisational directives are renewed on the normative level. For instance, mission and vision statements are revised to include the SDGs, and new networks involving different companies and organizations are created based on shared normative goals.

Contrasting to the purely strategic focus of CSV (Porter & Kramer, 2006, 2011), shared values result from an exploration of the values and normative orientations of individuals, organisations and whole nations (e.g. reflected in broader development strategies). These values and normative orientations can serve as a starting point for the development of a common ground among collaborating partners (e.g. European companies and local entrepreneurs from developing and emerging countries). For instance, improving the health of customers may already be a key element of the corporate mission of a large food company. Specifying global values such as health or other SDGs in partnership with local partners may then provide the starting point for a new collaborative business model (e.g. related to new food supply chains) in a developing country. Local challenges are addressed while a new business model is designed and new market opportunities are created. However, principles and process-related criteria (Breuer et al., 2018) need to be applied to increase the probability of developing business models with a positive impact on the SDGs. These guiding principles and process-related criteria emphasise, for instance, the necessity of engaging in extended value creation and managing the impacts and outcomes of business model development and implementation (both principles still have to be systematically integrated into the *lot* approach).



**Figure 1:** Overview of business model innovation based on shared values represented by SDGs

Figure 1 summarises how an orientation towards the SDGs motivates BMZ programmes and GIZ projects, which, as in the case of the *lot*, bring together business partners from European and developing and emerging countries. The overarching normative motivation results from the SDGs and the German government’s sustainable development objectives. This motivation is also based on Germany’s bi-lateral country negotiations related to these goals and objectives. These provide the necessary framing for a values-based approach to innovation and business development, which is facilitated through GIZ’s bilateral, regional and global projects. One such global project is the Sector Project “Private Sector Cooperation/ Corporate Responsibility for Development” within which the *lot* approach has been tested. Always working together with existing bilateral, regional or global projects, the *lot* brings together local entrepreneurs and companies from developing and emerging economies as well as European business partners.

One critical challenge that also characterizes this approach to business model innovation based on SDGs relates to the issue of ownership. In traditional business modelling, we start with an idea (e.g. an idea for a new product, service or marketing measure, or a new technology or cost saving measure). Oftentimes, an entrepreneur, a manager or a team of founders, is inspired by this idea (feeling a “natural” ownership) and passionately seeks ways to bring it to the market. This was the case for many of the values-based business model innovations driven by passionate founders and managers like Govindappa Venkataswamy from Aravind, Ray Anderson of Interface, or Yvon Chouinard of Patagonia (see cases from Breuer & Lüdeke-Freund 2017). Even if new values-based ideas are not driven top-down into an organisation, their ownership is clearly located within the organisation and among the promoters of this idea.

On the contrary, values-based business model innovation in development cooperation catering to the SDGs (such as pursued in the *lot*) is not only missing the initial idea but also a sense of ownership for the project among the initial participants (e.g. collaborating

companies from the EU and entrepreneurs from emerging and developing markets). With development goals as initial frame to search for business opportunities, establishing ownership becomes a significant challenge. Participants from diverse backgrounds first need to reinterpret the development goal and formulate a vision or mission statement for their collaboration. We assume that the first sense of ownership develops when the participants acknowledge this normative statement as important and worth striving for (i.e. values as representation of what is considered as important). Based on these shared values previously distributed actors form a team and generate new business ideas, even before financial ownership can materialize or be negotiated. A unique challenge for business model innovation in development cooperation catering to the SDGs is mastering this initial journey: from global SDGs and a reinterpretation of selected SDGs and targets, to a shared assessment and prioritisation (i.e. shared values) of the importance of this reinterpretation, and transforming an immaterial sense of ownership for the project to financial commitments.

The following section proposes a classification system that helps to distinguish six dimensions of values-based business model innovation for DC and their maturity for the *lot* prototypes. This, in turn, allows an approximation of their current status of development.

## 5 Classification approach and example

Between 2015 and 2017, 6 *lot* processes led to 37 business model prototypes which were jointly developed by companies from Europe and developing and emerging countries. These prototypes are characterised along the six dimensions of the classification system:

- Type of innovation
- Degree of novelty
- Business model readiness
- Scaling potential
- Business model pattern
- Association to SDGs

Together, these dimensions allow for a qualitative evaluation of business model prototypes along different ordinal scales which can be aggregated and illustrated as spider web diagrams, which provide visually distinctive prototype maturity profiles. Their application can be illustrated using one of the business model prototypes that was developed in Uganda.

### *Classification of business model prototypes for development cooperation*

The six dimensions are defined in table 1. Although their scales use distinguishable levels, they are not suited to calculate prototype maturity levels (although this could be a future iteration of the classification system which should be of particular interest to funding agencies and investors).

**Table 1** Classification system dimensions

Dimension	Levels
Type of innovation (based on Breuer & Lüdeke-Freund, 2017a;b; Bleicher, 1994, 2011; OECD, 2005)	<p><b>Instrumental:</b> processes (e.g. a new production method or delivery process), products (e.g. manufactured from natural materials or enhanced through software), services (e.g. mobility sharing or health services), further marketing innovations (e.g. a pricing models depending on customer segments or utilisation of social media as a new customer touchpoint)</p> <p><b>Strategic:</b> value proposition (e.g. simplified usability and accessibility), systemic relation between new or adapted components (e.g. increasing affordability based on reduced functionality and costs through new business partners), or a whole new model (e.g. the food4health model to provide health insurance through coupons from food purchases)</p> <p><b>Normative:</b> identity (e.g. assuming a new mission such as to eliminate polio), and/or network (e.g. forming a sustainable apparel coalition with competitors)</p>
Degree of novelty (based on OECD, 2005, 57).	<p><b>“New to the firm”</b> is the minimum requirement according to the Oslo Manual as it requires new knowledge and a learning process that may lead to subsequent improvements and innovations. Also, it is acknowledged that the diffusion of initial innovations generates their major economic impact. “A product, process, marketing method or organisational method may already have been implemented by other firms, but if it is new to the firm (or in case of products and processes: significantly improved), then it is an innovation for that firm” (OECD, 2005, 57).</p> <p>If a firm is the first to implement an innovation it is considered <b>“new to the market”</b> (i.e. the firm and its competitors, it may include a geographic region or product line, depending on the firm’s own view). The economic impact on a larger scale will depend on adoption by other firms.</p> <p><b>“New to the world”</b> are innovations of the qualitatively greatest degree of novelty.</p>
Business model readiness (adapted from Blank, 2013)	<p><b>Sketch:</b> A business model sketch has been created based on an initial idea in direct collaboration of local entrepreneurs and at least one European partner (this stage should be reached after the <i>lot</i> innovation workshops). “Sketch” covers the initial investment readiness levels (IRLs), up to the validation of proposed problem-solution combinations.</p> <p><b>Prototype:</b> A minimal viable prototype of the offering has been created and evaluated with potential customers in a controlled environment (this stage should be reached after the <i>lot</i> test phase). “Prototype” includes the IRLs up to a validated revenue model.</p> <p><b>Proof-of-concept:</b> A basic offering has been tried successfully in a test market environment. Such a market-ready proof-of-concept requires a high-fidelity minimum viable prototypes (MVP) and comprehensive, validated business metrics. This stage should be reached at the end of the <i>lot</i> proof-of-concept phase, if the participants agree that the concept is ready for real markets; market rollout and internationalisation become a topic only after this stage has been mastered successfully.</p>
Scaling potential	<p><b>Locally:</b> Innovations responding to the specific needs and requirements of a local community, which may be defined in geographical or cultural terms (e.g. a specific mountain community, or a subculture in a specific city).</p> <p><b>Nationally:</b> On a national level, state legislation may provide a unique legal framework within which an innovation or a business model needs to unfold (e.g. peculiarities of a national public health care system).</p> <p><b>Internationally:</b> Regionally independent innovations are at least in principle, globally applicable.</p>

<p>Association to business model patterns (based on Lüdeke-Freund et al. 2017)</p>	<p>Identification of similarities to one or several business model patterns to describe the prototype’s value creation rationale. Business model patterns support the classification and description of business models, and can be used to inspire and guide business model innovation. A compilation of 45 sustainable business model patterns is available to support sustainability-oriented business model innovation. Each pattern provides a combination of a problem and a solution that can be applied to similar problems. <i>lot</i> prototypes might contribute new patterns and already documented patterns may be used to learn from proven solutions to similar problems.</p>
<p>Association to SDGs (following UN 2015)</p>	<p>Identification of SDGs addressed by the prototype. Measuring positive impact based on scientifically obtained evidence is an ongoing and a key challenge for the values-based approach and its participants.</p>

Spider web diagrams can be used to visualise the classification (or similar tools to represent aggregated, multidimensional information). The following figure shows the example of a comparison of two fictitious projects.

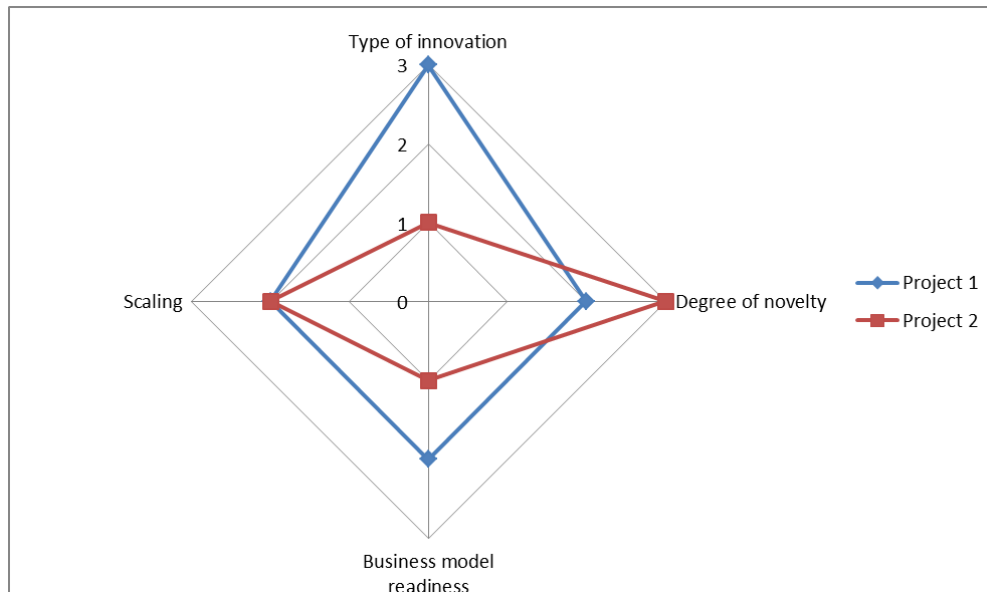


Figure 2: Classification visualised as spider web diagram with fictitious examples

### *Development and business challenges and new business models from Uganda*

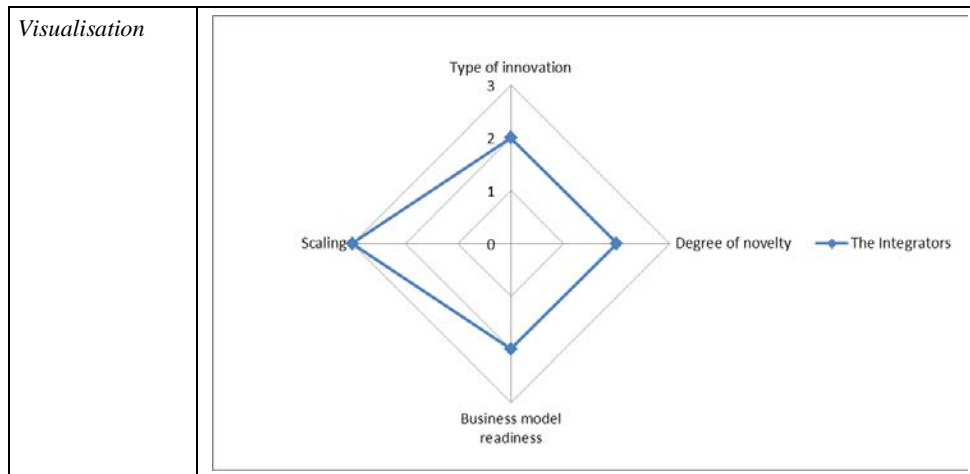
The classification system is applied to several prototypes illustrate its usefulness. Here we describe the example of one of the business model prototypes that was develop by a coalition of German companies and entrepreneurs from Uganda.

Currently only 12 percent of Ugandas’ geography are supplied with modern electricity. As a contribution to the SDG number 7 to provide for affordable and clean energy, a development challenge for the BMZ partner country was formulated. The lot project joined with Siemens to formulate the initial challenge for “Lab Number 6”: How might we improve access to affordable and reliable energy in Uganda? Together with the local GIZ representative and potential sub-challenge owners, initial user- and stakeholder research was conducted, and help to define six sub-challenges. These included the

challenge to improve last-mile grid connectivity, to integrate different energy sources to increase the productivity of mini grids or to increase productivity in rural areas through biomass. Insights from desk research and field studies fed into a three-day ideation workshop. The workshop utilized a Design Thinking approach to come up with new solutions, a business model and a roadmap to address the refined sub-challenges. After the workshop, further field research and studies helped the teams to revise their assumptions and to prepare a pitch of their business model to an expert jury. Based on the evaluation of these pitches three prototypes were selected to obtain modest financial support for a three months test and pilot phase. One of these selected prototypes (named Integrators) went on to test an electrification model for rural SMEs through a renewable energy based Hybrid Energy System (HES) with the objective of increasing productivity of SME's and creating independence from diesel fuels. Another project (named Team Access) tried to expand the existing information and communication technology (ICT) and energy infrastructure by leveraging its financing through an investment model. Once they finish the pilot phase with proof of concept the consortium of Ugandan and European partners should be able to access the required resources to operate. The mid-term vision is not only to establish a new self-sustaining business motivated by the initial challenge of SDG7, but to create a scalable business model that inherently contributes to the generation of affordable and clean energy.

**Table 2** Classification of business model prototype of “The Integrators” (Uganda)

<i>Dimension</i>	<i>Specification and levels</i>
<i>Description</i>	<i>A hybrid energy system (HES) combining solar PV and small wind turbines with battery storage and existing infrastructure enables SME's in Uganda to increase their productivity with decreased energy costs and a more reliable energy supply. SMEs become shareholders of the system and develop additional revenue streams like selling electricity to surrounding household or expand their business value chain. The coalition includes a local entrepreneur, a German project development company, a large German industrial manufacturing company.</i>
<i>Type of innovation</i>	<i>Type: 2 (a new value proposition to SME)</i>
<i>Degree of novelty</i>	<i>Novelty: 2 (new to the energy market in Uganda)</i>
<i>Business model readiness</i>	<i>Readiness: 2 (prototype, or even 3 proof-of-concept)</i>
<i>Scaling potential</i>	<i>Potential for scaling: 3 (internationally for countries with limited connectivity to the energy grid)</i>
<i>Association to patterns</i>	<i>G7 “Access Provision”</i>
<i>Association to SDGs</i>	<i>SDG 7 (Affordable and Clean Energy)</i>



## 6 Insights for innovation management and policy-making in the context of international development cooperation

The values-based innovation framework (Breuer & Lüdeke-Freund 2017a) allows addressing critical issues related to the development of business models for sustainable development, such as the need to reframe development challenges as business opportunities based on the shared values of collaborating partners, and to design according innovation processes and projects with potentially positive impacts on the SDGs. New challenges emerge once the framework is applied to DC. The values-based framework needs to be refined and further developed to include issues of stakeholder involvement and impact estimation as well as methods to facilitate collaborative business model innovation of entrepreneurs in developing and emerging markets who collaborate with European firms. Within this last section we discuss preliminary implications for innovation management and policy-making in the context of international development cooperation.

### *Implications for the management of innovation projects within the lot*

Critical issues were identified and addressed to review and improve the *lot* process and leverage its scope and effectiveness. The following are some exemplary lessons learned and how they have been addressed:

1. The *lot* approach to facilitating innovation requires a clear terminology to ensure efficient and effective communication and collaboration among all stakeholders. Therefore, an initial framework document entitled “Shared Values and New Business Models for Sustainable Development” was written to introduce and discuss the relevant concepts and a classification system for business model prototypes resulting from the *lot* process.
2. Some participants struggled to understand and communicate their strategic approach and business model and instead focused on engineering aspects and technical features of their proposed solutions. A toolkit with appropriate templates and a

handbook with a repeatable workflow alongside methodological coaching will support future participants to better create and communicate viable business models.

3. Most company partners treated the SDGs in a very selective way and just focused on obvious win-win opportunities, but rarely considered unintended and negative side effects of their projects. Guidelines for impact analysis and assessment as well as criteria for values-based business models are currently being refined in order to provide better guidance throughout the whole *lot* process.

Managing innovation projects in the context of international development cooperation is particularly challenging because of several reasons, many of which are related to the fact that language matters. Experts in DC, innovation managers and managers and entrepreneurs who are involved in the *lot* process may share – unconsciously – common normative orientations and goals, but as long as they lack a proper terminology and language that allows them to identify these commonalities, their activities run the risk of standing unconnected next to each other. Experimenting with concepts such as CSR and shared value, and finally with the notion of shared values and values-based management, shows that strong and figurative concepts and terms are needed to motivate and hold together innovation processes that are stakeholder-inclusive and allow for co-creation between the participants. Concepts with these qualities offer far more than theoretically grounded definitions and clarity; they serve as communicative devices and boundary concepts with the ability to unfold the directive, heuristic and integrative potential of normative orientations and shared values, e.g. expressed through the SDGs, as source and guideline for innovation.

Another implication refers to the difficulty to engage in business model innovation. Although business model innovation is widely accepted as a key to business success, with the ability to leverage e.g. process, product and service innovation, it was interesting to see that many *lot* participants struggled to concentrate on the business model as their innovation object and instead showed a tendency to remain within traditional innovation categories such as new processes and products. This might have several reasons, such as the participants' disciplinary backgrounds, but if it is that difficult for participants to engage in a form of innovation that is nowadays seen as the dominating approach to gaining and improving business success, special attention has to be paid to how the *lot* participants are led to engage in business model innovation. As with the notions of shared values and values-based innovation and their role as communicative devices and boundary concepts, there seems to be a need for according guidance to navigate the *lot* participants towards an improved understanding of, and the capability to apply, business model innovation. According tools, serving as another class of boundary concepts, are important to achieve this goal and make sure that the innovation projects finally lead to new business models (beyond single processes, products and services) for sustainable development. Tools like the values-based Business Innovation Kit might serve this purpose.

Finally, the tendency to treat the SDGs as a kind of checklist that can be ticked whenever some kind of link between a company's activities and one or more SDGs can be identified may be highly misleading. First, the SDGs are an integrative framework – no goal has a higher or lower priority than other goals. Therefore, prioritising one or several goals as a company may be acceptable for practical reasons as not every company can deal with every SDG. But it is at the same questionable from an ethical perspective. Why, for example, is it legitimate that a company cares about green energy but ignores



the needs of people who are in need of food or health care? This is not to say that a green energy company engaging in innovation activities should take care of all 17 goals simultaneously, but it should be clear about the reasons why it aims for contributions to SDG 7, and not SDG 2 or 3. It should also at least explore cursorily whether further contributions to the SDGs might be possible. Extending innovators' perspectives and moving from a tick-box approach to the SDG to a more integrative one is a challenge that has to be considered in the further development of the *lot* approach.

Besides these implications for the management of innovation processes within the *lot* and in the context of international DC, we can also point to some preliminary implications for policy-making, particularly regarding the fact that the *lot* introduces a new approach to the realm of DC tools.

### *Policy recommendations*

The *lot* builds on a business-oriented approach to DC. It emphasises the importance and the potential of companies as agents for sustainable development. Based on this rationale and the classification of an initial set of *lot* business model prototypes, some preliminary policy recommendations can be derived.

New business models and business cases for sustainable development are needed to activate companies as agents for DC and the pursuit of shared values, such as those represented by the SDGs. This requires a shift in mind sets on both sides, companies and DC organisations. Companies, or more generally speaking entrepreneurs, are passionate about their goals and are efficient and effective in problem solving. The daily business of entrepreneurs and managers includes dealing with scarcities (e.g. money, employees, regulatory support etc.). Day by day, they develop solutions to dynamically changing problems, following the ultimate aim of satisfying their stakeholders. The SDGs as well as the circumstances in developing and emerging countries call for this type of innovative and flexible problem solver. However, entrepreneurs and managers can gain greatly from recognizing the opportunities of advancing the circumstances in the least developed countries and those on a trajectory to reach the standards of industrialised countries. Development cooperation organisations can leverage these innovative problem-solving skills and treat private companies as partners and contributors who not only create economic value but strive for shared values. But to do so, the communication towards these important problem solvers has to be adapted to their "language" (see above) and faster and more flexible frameworks for their engagement are required. Policy-makers are thus challenged to align the different clock-speeds of their own system and the business world.

Even if such an alignment is feasible, the ability to solve problems and survive in market competition will not automatically be applied to DC by every company. And those who do so might oversee the real needs of local communities in developing and emerging countries. It has to be considered that companies engaging in DC may also do harm to the communities in which they engage. Negative impacts due to "land grabbing" (e.g. agro-industrial corporations in Africa), destruction of local ecosystems (e.g. palm oil in Asia), negligence of social standards (e.g. in global manufacturing supply chains) or a pure profit orientation that threatens local socio-economic development (e.g. hydroelectric power stations in ecologically vulnerable communities) must be avoided. Development cooperation organisations must develop project development processes, codes of conduct, control instruments etc. to make sure that a business-oriented approach

to DC does not open doors to devastating and reckless business practices in vulnerable communities. Professionally managing outcomes and unintended consequences, monitoring and evaluating them against initial values-based benchmarks and intervening accordingly are indispensable means to guide the development business models in support of the SDGs.

Accordingly, the proposed new mind set for DC needs new tools to facilitate cooperation. Shared values and shared visions derived from the SDGs, but also from the unique needs of local populations in developing and emerging countries, offer a rich repository of new business and DC ideas. They can also make sure that detrimental effects of the involvement of purely profit-oriented companies can be avoided. The *lot* offers a framework that flexibly connects different DC stakeholders. Instead of just focusing on the “business of business”, opening the framework and its tools for a values-based approach to business and innovation can increase and unfold the potential of *lot*-facilitated collaborations and better connect them to the needs of local communities. It can also help in avoiding mission drift on the side of involved companies (e.g. drifting from a social mission to typical profit-making) as well as risks to DC as being seen as supporting business for the sake of business only. According tools are available, for example values-based business modelling tools, value mapping tools etc., but these need to be tested and adapted to the DC context, as is currently done with the *lot* approach.

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