

#CompaniesForChange

How Companies can Improve their Impact on the Sustainable Development Goals (SDGs) and Harness the Power of Digitalization

A Practical Handbook for Managers





Highlights

87% of CEOs globally believe the SDGs provide an opportunity to rethink approaches to sustainability

*

49% of CEOs globally believe that business will be the single most important actor in delivering the SDGs *

88% of econsense members are engaging with the SDGs *

Change is necessary across the entire value chain, with high positive impact opportunities in product innovation and high potential to reduce negative impacts in supply chains

Change for SDGs can deliver a positive business case in four value levers: increase in revenues, increase in intangible values, reduced costs and reduced risks

*

Digital solutions are indispensable enablers: Digitalization can help to contribute to all 17 SDGs and >50% of the SDG sub-goal targets

This handbook inspires with seven leading practices for change. Each practice has a positive impact on SDG achievement, a business case and harnesses the power of digitalization.

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How to use this handbook

This handbook is made for leaders and managers who want to drive change in their companies, for example:

Business Unit and/or Brand Managers * Function Managers, for example, Strategy, Procurement, R&D, CR, HR and/or Marketing

The handbook intends to inspire for action by:

Providing context about the UN Sustainable Development Goals (SDGs), the role of digitalization and the relevance of companies and business value in this context (Chapter 1)

Introducing seven concrete practices for change with a real business case and company examples (Chapter 2)

Suggesting to get started in the own company and to cooperate with and learn from other companies who have started the journey (Chapters 2 and 3)

Welcome note

The United Nation's Agenda 2030 and its 17 Sustainable Development Goals (SDGs) have changed the way we talk about sustainability in a very positive way. The SDGs provide a shared narrative, generate a common understanding of sustainability challenges and clarify that these are global and interlinked issues. The SDGs are valid for all and are owned by everyone. This means that all stakeholders – states, society, science and business – need to work together to achieve the SDGs.

Business can be a major force for sustainable development and will play a decisive role in achieving the Agenda 2030. Companies have a critical role to play as a source of finance, as a driver of innovation and technological development and as an engine of economic growth and employment. The Agenda 2030 cannot be realized without meaningful engagement by companies. And sustainable development can make good business sense.

Business has a long history of integrating sustainability in operations and developing new solutions to tackle ecological and societal challenges. As an umbrella for a company's activities, the SDGs can now be a driver for change and unleash innovation, economic growth and development. To integrate the SDGs into business practice and to boost the business impact on SDG achievement has been at the top of econsense's agenda since 2015. econsense member companies have already been very active in engaging with the SDGs and maximizing their own SDG contribution.

Now companies have one new, powerful ally in achieving the SDGs: digitalization. It is a true accelerator for change. Digitalization is reshaping our society in many ways and offers a huge chance to catalyze the fundamental transformation the SDGs call for. A recent study of Accenture Strategy and the Global e-Sustainability Initiative shows that digitalization can contribute to the achievement of all 17 SDGs. The path to the Agenda 2030 will be an ambitious journey for all actors alike. However, embracing the transformative power of the SDGs and digitalization will provide an essential window of opportunity to innovate and drive change and to rethink and reset approaches to sustainability.

This handbook provides you with seven concrete practices to change towards positive impact – with a business case and powered by digitalization. We hope that you are inspired by reading this document and initiate and promote the transformation needed to achieve inclusive and sustainable growth as defined by the SDGs.



DR. WOLFGANG GROSSE ENTRUP CHAIRMAN OF THE BOARD ECONSENSE



ALEXANDER HOLST MANAGING DIRECTOR AND HEAD OF SUSTAINABILITY STRATEGY IN THE DACH-REGION, ACCENTURE STRATEGY

1. COMPANIES FOR CHANGE:

aim for impact, make the business case, use digitalization as enabler

IT IS TIME TO CHANGE DIRECTIONS OF GLOBAL PROGRESS

"Sustainable Development" has been on the global agenda at least since the 1970s, when the famous Club of Rome published their "Limits to Growth" report.¹ States, civil society, and increasingly also business, have been trying to redirect the world's development towards a more environmental-friendly, socially and economically viable direction.

However, the world is still moving in the opposite direction, towards "un-sustainability", as Germany's reknown Prof. Dr. Schaltegger puts it, at least with regards to the environment.² Take climate change, for example: global CO₂ emissions remain to be way too high. In Germany, CO₂ emissions have been stagnating at the same levels over the last seven years and have even increased in some sectors such as mobility.³ Germany is very likely to breach its climate goal 2020.⁴ In parallel, the effects of climate change are materializing even faster than expected, the arctic ice is melting and sea levels are rising more quickly.⁵ First villages in coastal areas are already today becoming uninhabitable.⁶ These developments put not only environmental and societal, but also economic development at risk. With regard to several social issues, there has been progress. For example, the UN claim that the Millennium Development Goals (MDGs), the global development agenda from 2000 to 2015, "helped to lift more than one billion people out of extreme poverty".7 However, also in terms of social progress a great deal remains to be done, as for instance, in 2014, 263 million children, adolescents and youth were still out of school throughout the world.8

Recently, in Autumn 2015, the world has set powerful new milestones to change directions: The Paris Agreement sets the path to keep the global temperature increase to well below 2°C and the UN Sustainable Development Goals (SDGs) shape a new global vision to be achieved by 2030.

The SDGs set out a very positive vision for the global future and are extremely ambitious:

- The SDGs call for a full system transformation for good: zero hunger globally, social security systems and universal health care for all, inclusive growth decoupled from environmental degradation, secure working environments for everyone, affordable access to the internet worldwide for all, safe housing for all, etc.
- Change needs to happen everywhere: in the developing regions as well as in developed countries like Germany. Every country in the world has room for improvement in least half of the SDGs⁹

The SDGS call for a full system transformation andevery country in the world has room for improvement in at least half of the SDGs

WHY SDGS AS FRAMEWORK FOR CHANGE?

87% of CEOs globally believe the SDGs provide an opportunity to rethink approaches to sustainability.¹⁰ The authors of this handbook share this view.

The SDGs provide a set of advantages to previous "sustainable development" concepts:

They are a truly global agenda valid for all geographies and affecting all markets: All 193 member states of the United Nations have signed the SDGs and are currently integrating the SDGs in their national agendas, including "developed" countries such as Germany¹¹

- They provide a common language: The SDGs are a reference used by a broad set of stakeholders alike, for example, governments, B2B customers and civil society organizations
- They structure sustainable development environmental, social and economic aspects – in a clearly visualized set of 17 goals
- They provide the ambition level for change: with 169 sub-goal targets that formulate the target state providing (often quantitative) orientation on the gaps that are to close

Intended impact more important than SDG-labeling:

The authors of this handbook take the SDGs as a framework for change for sustainable development and encourage companies to do so as well. However, sustainable development has not been invented with the SDGs. Many companies have a long history of addressing sustainability issues and of developing solutions to tackle sustainability challenges. However, not all activities that contribute to sustainable development are "labeled" as SDG-contributing yet. The authors of this handbook think that the intended impact of companies on sustainable development is more important than the labeling. Therefore, this handbook considers activities with dedicated impact on sustainable development, even if they are not labeled in the context of the SDGs. years already¹⁴

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TO BECOME A MAJOR FORCE FOR SUSTAINABLE DEVELOPMENT, COMPANIES NEED TO ACCELERATE CHANGE

Business can be a major force for sustainable development. Companies have a huge potential to increase the already existing positive impacts on economic progress and quality of life and to reduce negative impacts, for example, on the environment or regarding working conditions in supply chains. Most people today even think that business is as responsible for solving societal problems as governments.¹²

Companies are vocal and clear about their intention to deliver:

company leads on the sustainable development agenda¹³

- 49% of CEOs believe that business will be the most important actor in delivering the SDGs
- 90% of DAX30 companies have dedicated sustainability or corporate responsibility teams, management tools and processes in place, for many

• 90% of CEOs globally say they feel personally committed to ensuring their

- 49% of CEOs globally believe that business will be the single most important actor in delivering the SDGs¹⁵ – even though the SDGs are an agenda of nation states
- 88% of econsense member companies are engaging with the SDGs only two years after their launch¹⁶

One of the reasons why the SDGs are interesting for companies is that the world envisioned by the SDGs would secure and/or enable more flourishing market environments. More prosperous people (no poverty, SDG 1), better educated workforces (quality education, SDG 4), continued existence of natural resources (SDGs 12, 14 and 15), in more stable societies with more stable market conditions (peace, justice and strong institutions, SDG 16)¹⁷ – these are promising prospects for any (global) company.

However, commitment to SDGs means rethinking common business practices.

87% of CEOs believe the SDGs provide an opportunity to rethink approaches to sustainability

THREE PARAMETERS FOR CHANGE: IMPACT ON SDGS, BUSINESS CASE FOR SDGS, EN-ABLING ROLE OF DIGITALIZATION

1. Companies' impact on SDGs: not all SDGs impacted in the same way

To contribute to the SDGs, companies can make use of their huge impact potential. The industry SDG impact analysis provided by this handbook (see Exhibit 1) shows that there is a very high contribution potential towards many SDGs, across producing and services industries. The industry SDG impact analysis investigated the positive and/or negative impacts regarding the 17 SDGs and their 169 sub-goal targets of the value chains (supply chain/supplier activities, production phase/own company activities, use phase of products and/or services) of eight industries represented in econsense, five in the producing and three in the services sector.¹⁸

When aiming for change through company activities, different factors need to be taken into consideration:¹⁹

 Not all SDGs are or can be equally impacted by business: for example, SDG 8 (decent work and economic growth) and 12 (responsible consumption and production) are more directly impacted by business activities, while SDG 10 (reduced inequalities) and 16 (peace, justice and strong institutions) are less dependent on change in business and rather require action from policy makers

Producing and services sectors have differing levers for change: Companies from the producing sector have a much higher impact potential in the supply chain and production phase than service companies, whose impact potential is to a large extent focused on the enabling potential in the use phase of their services

In sum, the use phase of products and services offers the highest potential for positive impact; in the supply chain, reducing negative impacts is particularly important

 portant (refer to next sub-chapter for rationale and background information):

 Three parameters for

 1. Aim to improve the value chain impact of your company on the SDGs (also see impact analysis in next sub-chapter):

change in companies:

1.) Aim to change value

chain impact on SDGs

2.) Be clear about the

3.) Use digitalization as

an enabler for change

business case

 Consider the entire value chain of your company; depending on your industry, impact intensities on the SDGs are likely to differ between:
 Supply chain/supplier activities

When initiating practices for change, the following three parameters are im-

- Production phase/own company activities
- Use phase of products and/or services, including end-of-life
- Understand the necessary impact direction across your value chain. Contributing to SDG achievement can mean both, to:
 - Increase positive impacts, for example, with high potential in the use phase of products and/or services, for example, by providing access to services that are part of the SDG vision like universal health care (SDG 3.8)
 - Decrease negative impacts, for example, with high importance for environmental and social SDGs in the supply chain and the production phase of the producing industries, for example, by reducing waste across the value chain (SDG 12.5)
- 2. Be clear about the business case as an essential driver for change in companies (also see business case examples in next sub-chapter). When preparing practices for change, describe how they could:
 - Increase revenues, for example, by creating new business opportunities
 - Reduce costs, for example, by improving efficiencies
 - Increase intangible values, for example, by increasing trust and/or customer satisfaction and loyalty
 - Reduce risks, for example, by mitigating supply chain or reputational risks
- 3. Use digitalization as an enabler for change (see also digital transformation potential in next sub-chapter) and benefit from change that is disrupting work and life anyway:
 - Enabling people-centric business models, with unprecedented speed and reach
 - Helping to improve company processes
 - Opening new technological solutions to address SDGs (e.g., smart grids as key component to enable renewable energy)

The next part of this handbook dives deeper into these three parameters.

- The value chain steps require different types of action in terms of reducing negative or increasing positive impacts (see Exhibit 2): The product use phase offers most potential to maximize companies' positive impact on the SDGs; the supply chain requires companies to focus on reducing their negative impact; in the production phase/their own activities, companies have the biggest playing field to improve their impacts in both directions, for example, to improve their positive impacts on decent work (SDG 8) and to reduce their negative impacts on the environment (including SDGs 6, 7, 12, 14 and 15)
- Also, some SDGs rather require a reduction of negative impacts and others
 primarily need a strengthening of the positive impacts that companies provide
 to society: While some SDGs, like 14 (life below water) or 15 (life on land),
 mainly require companies to reduce their negative impacts, other SDGs, like 9
 (industry, innovation and infrastructure) or 17 (partnerships for the goals), can
 directly benefit from active and positive commitment of companies

		Pro	Producing Sector	tor		Se	Service Sector**	***
Industry	Automotive/ OEM	Chemicals, Pharma & Lifescience	Consumer goods	Industrial goods	Utilities	Financial & Advisory services	ICT (incl. sourced devices)	Logistics & Travel
SDG Title* Value Chain Step	*	*		*	*	** *	*	*
SDG 1 No poverty								
SDG 2 Zero hunger								
SDG 3 Good health and well-being								
SDG 4 Quality education								
SDG 5 Gender equality								
SDG 6 Clean water and sanitation								
SDG 7 Affordable and clean energy								
SDG 8 Decent work and economic growth								
SDG 9 Industry, innovation and infrastructure								
SDG 10 Reduced inequalities								
SDG 11 Sustainable cities and communities								
SDG 12 Responsible consumption and production								
SDG 13 Climate action								
SDG 14 Life below water								
SDG 15 Life on land								
SDG 16 Peace, justice and strong institutions								
SDG 17 Partnerships for the goals								
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	Positive/ne	Positive/negative impact (potential):	ential): high	medium	low			

Exhibit 1: Industry SDG impact analysis along value chains of eight industries

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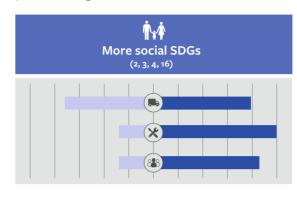
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*) short version by UN

medium also |

Exhibit 2: econsense member view on change potential along value chain²⁰









Increasing positive impact

Reducing negative impact

supply chain/supplier activities

- Y production phase/own company activities
- suse phase of products and/or services

2. The business case for SDGs: an essential driver to introduce practices for change

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A sound business case is an essential driver for change in companies. econsense member companies think that the two biggest barriers that need to be overcome to achieve change for SDG impact are

- an unclear business case for SDG impact maximization and
- a missing link between SDGs, business strategy and product portfolio management.²¹

Sustainable development can make good business sense:

In macro-economic terms, sustainable development is on top of the agenda. According to the World Economic Forum, the five highest global risks in 2017 are of environmental or social nature. Extreme weather events, natural disasters, large-scale involuntary migration, failure to tackle climate change and water crises.²²

Several studies have already estimated the positive business potential of the SDGs for industries. For example:

Digital solutions for the SDGs could provide over \$11 trillion in economic benefits in 2030

- According to the World Business Council for Sustainable Development (WBCSD), "the goals have the potential to unleash innovation, economic growth and development at an unprecedented scale and could be worth at least \$12 trillion a year in market opportunities and generate up to 380 million new jobs by 2030"²³
- According to the Global e-Sustainability Initiative (GeSI) and Accenture Strategy, digital solutions that help achieve the SDGs can provide a total of \$11.1 trillion economic benefits in 2030 for a broad set of industries; for example, the Information Communication and Technology (ICT) industry could profit from \$2.1 trillion additional revenues in 2030 only from digital solutions that help achieve the SDGs – a 60 percent boost of additional revenues compared to today's revenues of the ICT industry²⁴

But what does that mean for an individual company?

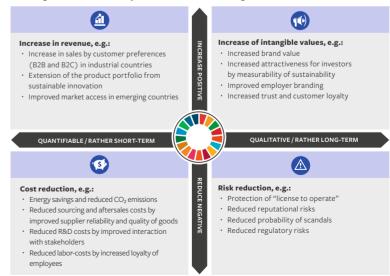
Companies can realize value from SDG-contributing practices in four dimensions (as Exhibit 3 illustrates).²⁵

Here are some illustrative proof-points for shorter-term, more quantifiable value creation:

- Revenue increase, for example, from sales of new or growing sales of existing products; illustrative proof-points:
 - BASF's accelerator products grew faster and increased their revenue share from 23.3% in 2013 to 27.2% in 2016, at the same time contributing with a higher profitability (cp. practice 5)
 - Unilever's Sustainable Living brands grew 50% faster than the rest of the business, accounting for 60% of growth in 2016, at the same time contributing to SDGs like clean water and better hygiene (SDG 6)²⁶
- Cost reduction, for example, by increasing efficiency; illustrative proof-points:
 With their StreetScooter, Deutsche Post DHL achieved a fuel cost reduction of more than 1,000€ per vehicle per year in addition to tax savings and reduced maintenance costs of at least 60%
 - Microsoft could save up to 15-30% of their energy costs (depending on the building) by introducing a more energy efficient smart building solution (SDG 7 and 13) with an upfront investment of less than 10% of energy costs, the payback period was less than two years²⁷

Exhibit 3: Sustainability valuation framework²⁸

The integration of sustainability into the core business can generate value in four dimensions



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Improving impacts on SDGs can lead to shorter and longer term business value, as the leading practices in this handbook illustrate

- Increase of intangible values, for example, increased trust, customer satisfaction or investor appraisal; illustrative proof-points:
 - Deutsche Telekom reported a cut of customer complaints by 50% achieved by close cooperation and co-innovation with their suppliers (cp. practice 1)
 - BlackRock is actively demanding long-term orientation and "sharper focus on environmental and social factors" from the companies it invests in (BlackRock CEO Larry Fink in a letter to S&P500 CEOs),²⁹ in sum, asking company CEOs to take into consideration SDG aspects in their decisions in order to remain relevant for investors
- Risk reduction, for example, reduced supply or reputational risks; illustrative proof-points:
 - Continental proactively reduces the risk of non-compliant products by applying an SDG-informed market strategy
 - Companies that engage with the SDGs are likely to profit from anticipating upcoming policies and avoid future restrictions, for example, with regards to emerging policies on carbon prices or clean air in cities

In the practices description of Chapter 2, you will find which of these value drivers are activated by which practice.

It is important to identify the right partners for change:

Cooperation across silos is an essential success factor The changes required in company management and concrete practices will not be achieved by working in silos. Getting relevant internal stakeholders on board, who might profit from the practice or who could help to make it a success is highly relevant - and an essential success factor for the practices that are described in chapter 2 of this handbook. Each practice comprises an initial list of relevant internal stakeholders and external partners to engage with, for example:

- Top Management and Strategy, benefitting from improved company performance
- Business Units and Product Managers, profiting from new business ideas
- Innovation and R&D, profiting from a product pipeline enhanced by forward-looking societal perspectives
- Procurement, profiting from better supplier reliability
- Communications, helping to bring the message across, to provide an outside-in view and profiting from telling "good" messages
- External partners like suppliers, start-ups, think tanks or business coalitions, helping to drive change for "out of the box" mindset shifts

Different business cases are expected from different SDGs:

Not all SDGs intuitively make a good business case, albeit there might be a broader industry interest in them, for example, SDG 16 on better institutions, enabling more favorable market conditions.

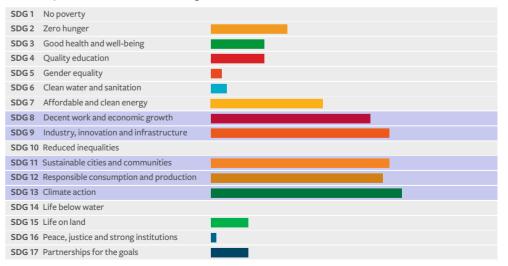
The TOP 5 SDGs in terms of business case, as assessed by econsense members today, are (see Exhibit 4): SDG 13 (climate action), SDG 9 (industry, innovation and infrastructure), SDG 11 (sustainable cities and communities), SDG 12 (responsible consumption and production) and SDG 8 (decent work and economic growth). Other SDGs appear to have a less obvious business case for individual companies, for example, SDG 1 (no poverty), 10 (reduced inequalities) and 14 (life below water).³⁰

The need for innovative thinking:

The authors of this handbook think that aiming for SDG achievement means holistically aiming for all 17 SDGs. However, the SDGs cannot be achieved by business alone (see also "closing thoughts" at the end of this chapter).

For SDGs, where companies have a high impact, but currently do not observe a tangible business case (e.g., SDG 6, clean water and sanitation), it is necessary for companies to get creative. This is where innovation and new thinking, essential pre-requisites for all practices described in this handbook (see chapter 2), are particularly relevant and where digital solutions enable change that has been unimaginable so far.

Exhibit 4: Top 5 SDGs for business case, according to econsense members³¹



3. Digitalization as a new ally: a powerful enabler for change

Digitalization is disrupting everything. Hyper-personalization, real-time availability of data, ubiquity, connected everything/Internet of Things, virtualization, augmented reality and artificial intelligence are key traits characterizing the new digital era. And change is happening at unprecedented speed and reach: Just take how digital technology has revolutionized everyone's communication. Can you imagine living without a mobile phone today, without text messages, without speaking to colleagues, business partners or friends from anywhere at any time you like? Today, over 4.5 billion people have a mobile phone,³² over 60% of the global population – and this just 24 years after the first mobile phone entered the market. No industrial revolution ever influenced the lives of so many people so quickly.³³

Digitalization is disrupting life and work with unprecedented diffusion speed and reach – over 60% of the global population has a mobile phone, just 24 years after the first mobile phone entered the market

Also, other areas of life are strongly impacted, for example healthcare, putting the doctor in your pocket through remote diagnostics, or mobility, through sharing and connected cars. Even in Germany, a country with a strong car-owning culture, more than 1.7 million people are already registered car sharing users.³⁴ The future of mobility is expected to be self-driving vehicles, based on the Internet of Things, Artificial Intelligence and machine learning. Assuming a successful transition to renewable energies, the future of emission-free, connected cities is imaginable.

At work, value chains are disrupted, leading to huge changes in production processes and business model designs, for example, from product to "as a service" models, as showcased by Spotify in the music market or car-sharing apps in the automotive/mobility market. These changes also demand new approaches for the workforce of the future. Interestingly, 84% of workers globally (78% in Germany) are excited about the changes that technology is bringing.³⁵

This transformational change that is happening anyway, offers a huge chance to catalyze the system transformation that the SDGs call for:

• Digital solutions can positively impact every single one of the 17 SDGs (see Exhibit 5) and >50% of the SDG sub-goal targets, as GeSI and Accenture Strategy found in their #SystemTransformation report in 2016,³⁶ and as the above described industry SDG impact analysis of the ICT sector illustrated (see Exhibit 1)

Digital solutions can positively influence all 17 SDGs and over 50% of SDG sub-goal targets

• Differences in digital transformation potential per SDG (see Exhibit 5): while some SDGs have the potential to profit from digital transformation, for example, more affordable education from anywhere and anytime (SDG 4), or a functioning renewable energy sector with smart grids and intelligent, decentralized solutions (SDG 7), other SDGs are more dependent on shifts in other domains of influence, for example policy action for reduced inequalities between countries (SDG 10)

And more good news: digitalization will potentially drive the business case of SDGs. The World Economic Forum and Accenture analyzed the effects of digital transformation across industries and suggest that the "combined value" to society and industry will be upwards of US\$ 100 trillion by 2025.³⁷

On an individual company level, digitalization can be an essential enabler for change towards SDGs:

- Across the value chain, digitalization can help to improve transparency and traceability of the supply chain and product life cycles, improve cross-silo collaboration through digitization of the workplace, enable more efficient and CO₂-friendly company processes and resource management, enable more people-/customer-centric business models and completely new products/technologies
- In overall company management, digitalization can help to improve measurement and steering of SDG impact through more efficient and reliable data collection and strategic capabilities through predictive data analytics
- In engaging with the ecosystem, digitalization can help to increase access to products/services for people, through better availability and affordability of products/services and can boost speed and reach of communicating the company's impact (internally and externally)³⁸

7 SDGs ³⁹
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SDG title (short version from UN)	Digital transformation potential	Digital impact highlight
SDG 1 No poverty	((•	Internet access can reduce number of people living on less than \$1.25 per day by one third
SDG 2 Zero hunger	(())	Smart agriculture can help increase yield up to 900 kg/ha in 2030
SDG 3 Good health and well-being		E-health solutions expected to transform healthcare delivery, e.g., via remote access with up to 1.6bn. I
SDG 4 Quality education		E-learning solutions expected to transform education delivery, e.g., up to 450 mn e-learning degrees in
SDG 5 Gender equality	(())	Internet access can increase combined GDP by women's employment in developing countries by $\$13$ - $\$$
SDG 6 Clean water and sanitation	(())	Smart water management can reduce global water consumption by 15%
SDG 7 Affordable and clean energy		Smart energy management, e.g., smart grids with predictive analytics, can enable >1.3 bn MWh saving:
SDG 8 Decent work and economic growth		Broadband penetration can lead up to 1,38% GDP growth, e.g. via reduced resource requirements
SDG 9 Industry, innovation and infrastructure		loT and smart manufacturing and logistics can collectively enable \$982 bn of cost savings
SDG 10 Reduced inequalities	((••	Mobile devices can connect up to 2.5 bn. additional people mainly in developing regions and LDCs in 20
SDG 11 Sustainable cities and communities		Smart building and smart city mobility alone enable 5 $\%$ CO $_2$ emissions savings in 2030
SDG 12 Responsible consumption and production		Smart agriculture can lead to 20% food waste savings in 2030
SDG 13 Climate action		Digital solutions can reduce global CO $_2$ emissions by 20% and global oil consumption by 70% in 2030
SDG 14 Life below water		Smart conservation solutions could already improve preservation of 32% of the world's coastal areas
SDG 15 Life on land	(())	Smart agriculture can save up to 251 tn liters of water in 2030
SDG 16 Peace, justice and strong institutions	((••	E-government can help make participation more accessible, affordable and transparent
SDG 17 Partnerships for the goals		Connectivity can help leverage technology and the use of ICT is expected to drive partnerships

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CLOSING THOUGHT: WILL CHANGE IN COMPANIES BE THE ONLY SOLU-**TION TO ACHIEVE ALL SDGS?**

The authors of this handbook think that the SDGs will not be achieved without accelerating change in companies. Yet, companies can and will not do it alone:

• The SDGs are a framework signed by states. 78 of the 169 SDG sub-goal targets (46%) are mainly directed towards international or national policy action.⁴⁰ Here, companies can contribute, but the main responsibility lies with states and multilateral organizations.

SDGs will not be achieved without companies – but companies cannot do it alone

- Not all SDGs are similarly impacted by companies' value chains (see industry impact analysis). Here, it will be specifically necessary for policy makers and other societal actors to drive change.
- Not all SDGs have an intuitive business case for a single company (see business case for SDGs). Business model innovation for these SDGs might take too long in order to drive the changes needed to achieve them. Even if digital technologies might enable new approaches, companies might just not focus their current activities on these SDGs. Here, partnerhips will need to be built - industry and cross-industry. Policy makers and other societal actors will be specifically required to drive change.

Yet, albeit change in companies is not the only solution to achieve all SDGs, it is important to repeat the high relevance of business: the SDGs cannot be achieved without business. In sum:

- For SDGs with high impact and high business case, individual companies can go ahead and introduce practices for change in their value chains and company management
- For SDGs that either have a low impact or a low business case (or both), companies can engage in partnerships and advocate for change in their ecosystems; these SDGs often provide the broader basis for an attractive market climate

Now, be inspired by concrete practices for change in companies - flipping the page to chapter 2 of this handbook.

2. SEVEN PRACTICES FOR COMPANIES TO DRIVE CHANGE AND CAPTURE BUSINESS VALUE



OVERVIEW

This handbook comprises seven leading practices for change towards higher SDG impact (see Exhibit 6).

The practices build on the three parameters of change presented in chapter 1:

- 1. High impact potential on the SDGs
- 2. A business case
- 3. Digitalization as a driver for transformation

To capture the value in these practices, a company may need to rethink fundamental aspects, such as how to approach value creation and measure success, how to collaborate internally and how to foster external partnerships. Accordingly, all seven practices comprise practical suggestions for managers, who want to drive change, and are applicable for both production and services industries.

Each practice description covers the following categories:

- Describing how to do it
- Highlighting the main internal stakeholders to partner with
- Illustrating the business case for each change
- Describing how digitalization could drive the transformation
- Suggesting a metric how to track success
- Providing practice examples and voices from companies who have already started the journey

To ease the identification of the respective practice for your function, they are ordered according to their allocation in the company:

- Across the value chain, for example, relevant for Procurement, Innovation / R&D, Product Management, Marketing and Aftersales
- In overall company management, for example, relevant for the CEO and Strategy, Business Units or Brand Management, Product Development, Finance and Human Resources
- In wider ecosystem engagement, for example, relevant for the CEO, Legal and Public Relations

Exhibit 6:

Seven leading practices to improve impact on the SDGs – Overview

Pr	actice Type	Leading Practice	â	Busine:	ss Value	
	Supply Chain	1. Co-Innovate with suppliers		5	1	
Value Chain	Production Phase	2. Design for SDG impact and consider digitally enabled business models	ⓓ	S		
	🐮 Use Phase	3. Enable users to harness sustainability benefits during product/service use			Ø	
		4. Pursue SDG-oriented market strategy	1	ø	1	
00	General Company Management	5. Integrate sustainability in products and services portfolio management		S	(
		6. Re- and upskill employees to integrate SDGs in decision- making		ø	1	
\odot	Ecosystem Engagement	7. Advocate for SDG- supportive policies		5	1	
Image: The second and the second an						

Main Internal Stakeholders (beyond CR/Sustainabilty)	Exampl	es illustrating aspects of the practice
 Procurement Country / Regional Management	Ŧ··	"Cooperative Partnership" illustrating the cooperative aspect of engaging suppliers
 Innovation / R&D Product Management Digital (e.g., Excellence Center) 	Deutsche Post DHL Group	"StreetScooter" illustrating environmental and social aspects as innovation drivers "Mindbox Accelerator" illustrating how to consider digitally enabled business models
Product ManagementMarketingAfter-Sales	Bayer Bayer Bayer	"Digital Farming" illustrating how digital solutions can help to harness sustainability benefits
 CEO and Strategy Country/Regional Management Business Units Marketing, Sales and Communications 	SIEMENS Ontinental	"Siemens – Business to Society" illustrating how SDGs can promote/support understand- ing of impact on specific markets "Integrating SDG13 into market strategy" illustrating how a strategically defined focus SDG informs market strategy of several Business Units
 Product Management and Business Units CEO and Strategy Innovation / R&D Finance 	BASF We create chemistry	"Sustainable Solution Steering "" illustrating how sustainability can be integrated in portfolio steering
 Human Resources Business Units Internal Communication 	VOLKSWAGEN ATTERCESSISSENAT	 "MOOC training for sustainability" illustrating how digital channels can serve for trainings on SDGs "Digital Factory" ilustrating how digitalization shapes sustainable forms of collaboration
CEO and StrategyLegalPublic Relations	WE MEAN BUSINESS	"Low carbon economy" illustrating how companies can engage in coalitions to foster supportive policies

PRACTICE 1 CO-INNOVATE WITH SUPPLIERS

Co-innovating with suppliers takes sustainable supply chain management to a more valuable level of supplier relationships than previous more top-down and once-at-atime approaches like self-assessments. It focuses on the specific local needs of the supplier, in particular on the societal and environmental realities and integrates suppliers in the definition of joint standards and improvement plans. Thereby, it improves quality of supplied goods and supplier reliability.

HOW TO DO IT

- Define SDG-related issues in the supplier activities, for example, pollution of the environment (SDGs 6, 13, 14 or 15) or poor working conditions (SDG 8), relevant for the core business
- Identify one or several concrete suppliers to jointly innovate for positive SDG contribution, i.e. co-create action plans to improve SDGs after understanding local issues
- Enable the suppliers' ownership for action to ensure sustainable success
- Co-measure success with concrete success measures to celebrate improvements and mitigate risks
- Upscale supply chain innovation continuously, for example, through a supplier community, to also capture upsides from joint product innovation

MAIN INTERNAL STAKEHOLDERS (BEYOND CR/SUSTAINABILITY)

- Procurement: benefits from increased supplier reliability and better value for money
- Country/Regional Management: benefits from improved reputation of the company as responsible buyer

HOW DIGITALIZATION CAN DRIVE THE TRANSFORMATION

- Offers the chance to create new, digital-enabled ecosystem business models
- Helps to prepare models for scale through big data and predictive analytics
- Augments the possible benefits of open innovation methods

PRACTICE FOCUS



VALUE TO SDGS

Value direction	SDGs
Increase	Particularly 4, 8,
positive impacts	and 12
Decrease negative	Potentially all,
impacts	besides 17

POSSIBLE SUCCESS METRIC

Numbers of supplier facilities co-innovated with

BUSINESS VALUE*

Revenue increase, e.g. more differentiated products by co-inno- vation for product development	Intangibles increase, e.g higher quality of pro- ducts, higher supplier reliability
Cost reduction, e.g. reduced complaint management, han- dling fees and other after-sales costs	Risk reduction, e.g. reduced reputational risks

PRACTICE MATURITY

Emerging

*Legend:

- main drivers
- secondary drivers
- indirect impact or no impact

Τ...

EXAMPLE 1 – ILLUSTRATING THE COOPERATIVE ASPECT OF ENGAGING SUPPLIERS

DEUTSCHE TELEKOM – COOPERATIVE PARTNERSHIP

In 2014, Deutsche Telekom has set out a specific development program to improve the relationships with suppliers through collaboration on sustainability performance, and thereby reducing the need for audits and improving product quality. Since 2014, every year, co-innovation has been conducted with ca. 4-5 supplier facilities (for example producing set-up boxes) with between 400 and 5,000 coworkers each.

HOW DEUTSCHE TELEKOM HAS DONE IT / IS DOING IT

- Identified major areas of concern in Deutsche Telekom's supply chain, for example, long working hours in production facilities
- Developed a methodology for collaboration and impact/success measurement at suppliers and at Deutsche Telekom (in terms of non-financial and financial aspects)
- Identified, encouraged and briefed most important suppliers to work with (criteria for selection include: strategic goods supplied, volume of revenue, country risk potential for bad working conditions)
- Selected concrete supplier facilities to work with, for example, depending on the knowledge and motivation of the facility manager
- Conducts joint local assessments on the local situation together with an expert team at the facilities
- Asked supplier teams to lead in composing their local action plan in order to reach a best-practice; supported them with suggestions for improvements and/or workshops to train the supplier's employees
- Involves or helps to involve sub-suppliers where appropriate/necessary
- Tracks progress and helps for improvements, incl. meetings to jointly discuss progress measures
- Plans to build a digitally enabled platform with the Global e-Sustainability Initiative to enable industry-wide replication and scaling of the approach

MAIN INTERNAL STAKEHOLDERS

- Corporate Responsibility: initiated the program
- Procurement: close collaboration with CR

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

- Resource-intensity (1.5 FTE on average in CR and Procurement, plus additional costs for external support) can make internal buy-in difficult: prepare a good business case right from the start and track and communicate successes
- Lack of management attention at some suppliers can lead to slow progress

VALUE TO SDGS (HIGH-LEVEL)

- SDG 7.3: Energy consumption reduction, as in a sample case cut by 20%
- SDG 8.2 and 8.5: Supplier productivity increase, as in a sample case by 15%; improved working conditions, as in a sample case weekly working hours were reduced from 68 to 48 hrs

BUSINESS VALUE (HIGH-LEVEL)

- Intangibles increase: Customer complaints cut by 50% (due to improved quality of supplied goods)
- Cost savings: Potential for reduced buying price due to cost savings of suppliers for example, productivity increase by 15%, energy consumption cut by 20%, supply chain cost saving of 5%
- Longer-term risk reduction

ROLE OF DIGITALIZATION

• Enables collaboration platform currently being set up for industry collaboration

"This cooperative program is a clear winwin situation for our suppliers as well as for Deutsche Telekom. By ensuring better working conditions, the program has a positive influence on suppliers' employee loyalty and motivation, raises productivity and improves the quality of products - thus creating a positive financial impact."

BIRGIT KLESPER, SENIOR VICE PRESIDENT GROUP CORPORATE RESPONSIBILITY, DEUTSCHE TELEKOM AG

NOTES

PRACTICE 2

DESIGN FOR SDG IMPACT AND CONSIDER DIGITALLY ENABLED BUSINESS MODELS

Designing for SDG impact means to take a social and/or environmental lens in the innovation process, with the twofold objective of increasing the positive SDG impact of a company while capturing new business opportunities. This practice is often backed by digital solutions: Their people-centric nature combined with their high diffusion reach and speed can help to speed up and scale positive impact. At the same time, the new products and services opportunities can open new revenue streams and contribute to a company's profitable growth agenda.

HOW TO DO IT

- Add a social and/or environmental impact lens on potential innovation outcomes during ideation phase
 - Define positive SDG impact that the innovation could create or current negative impact that it could reduce
- Define most affected stakeholders
- Consider digital technologies that could drive positive SDG impact, for example, mobile access from anywhere
- Keep additional SDG-lens throughout the entire product innovation process, including as a percentage of the criteria for "proof of concept"
- For all steps mentioned, choose a delivery mode of innovation
 - Integrating the SDG lens into the regular in-house innovation
 - Conducting sessions on SDG-focused innovation in-house
 - Taking an incubator model with or without external partners with an environmental- or social-first mindset

MAIN INTERNAL STAKEHOLDERS (BEYOND CR/SUSTAINABILITY)

- Innovation / R&D: benefits from additional ideas resulting from the innovation process, which are better linked to ongoing societal and digital disruptions and thereby help to future-proof the portfolio
- Product management: gets a more diverse innovation pipeline, leading to more business opportunities
- Digital competence center (emerging function in some companies): helps with digitally enabled business model innovation

HOW DIGITALIZATION CAN DRIVE THE TRANSFORMATION

- Offers the chance to create new, digitally enabled business models, for example, platform or "as a service" models
- Helps to prepare models for scale through big data and predictive analytics

PRACTICE FOCUS



VALUE TO SDGS

Value direction	SDGs
Increase positive impacts Decrease negative impacts	Potentially all (depending on the industry)

POSSIBLE SUCCESS METRIC

Number of successful product launches with a dedicated SDG-impact

BUSINESS VALUE*

nev

Co: thre

effi

venue increase, e.g. w products and/or vices, new/revised d more future-proof siness models (like oduct as a service)	Intangibles increase, e.g. more future-proof innovation process in- cluding a sustainability and digital lens
st reduction, e.g.	Risk reduction, e.g.
ough higher	reduced risk to lose
iciencies	license to operate

PRACTICE MATURITY

Emerging

*Legend:

- main drivers secondary drivers
- in dias at impacts
- indirect impact or no impact

ILLUSTRATING ENVIRONMENTAL AND SOCIAL

ASPECTS AS INNOVATION DRIVERS

HOW DEUTSCHE POST DHL HAS DONE IT / IS DOING IT

EXAMPLE 1 –

couriers of Deutsche Post DHL.

Deutsche Post DHL

Group



BUSINESS VALUE (HIGH-LEVEL)

- Risk reduction: reducing risk of losing access to cities due to stricter environmental regulation
- Cost reduction: positive TCO, through reduced fuel costs by more than 1,000€ per vehicle per year, tax savings and reduced maintenance costs by at least 60%
- Intangibles increase: increased employee satisfaction, improved working conditions, high identification of employees with StreetScooter vehicle and the company's GoGreen program, positive perception by customer and public

ROLE OF DIGITALIZATION

NOTES:

• Is the technological basis for managing the intelligent charging (infra-) structure for the StreetScooter

"Designing a sustainable solution for mail and parcel delivery adds to our own and our customers' green targets. With the StreetScooter we achieve a positive TCO and contribute to cleaner cities."

MARTIN LINDE,

CHIEF SALES OFFICER POST & CEO POST INTERNATIONAL, DEUTSCHE POST DHL GROUP

- Identified critical business, environmental and social aspects in the delivery of Deutsche Post DHL's post and parcel shipments, i.e., banning of diesel vehicles from inner-city centers, air pollution in cities and CO₂ emissions of their delivery vans (vehicles) and occupational health and safety issues
- Took a collaborative approach to innovation: partnered with RWTH Aachen "StreetScooter" start-up and involved 150 Deutsche Post DHL couriers in the development process
- Set up an intelligent charging infrastructure for the StreetScooter fleet at delivery sites

DEUTSCHE POST DHL – DESIGNING FOR CLEANER CITIES AND

Deutsche Post DHL used environmental and social aspects as starting points to innovate for

emission-free delivery in cities. This approach resulted in the StreetScooter, developed in a

collaborative manner, jointly with a start-up of the RWTH Aachen University and with the

IMPROVED WORKING CONDITIONS: THE STREETSCOOTER

- Launched StreetScooter which is lauded by external and internal stakeholders alike, due to its zero emissions approach, cost savings and improved ergonomics for the couriers
- As a result, the StreetScooter fleet has about 3,000 vehicles in suburban and urban areas to date. Starting 2013, Deutsche Post DHL introduced electric vehicles for CO₂ free delivery in Bonn, Cologne, Munich, Berlin, Hamburg, Essen, Herne, Bochum as well as in Vienna (and some more in the near future), resulting in zero emissions and reduced noise in the cities, and providing more ergonomic working conditions for its drivers

MAIN INTERNAL STAKEHOLDERS

- E-Mobility and GoGreen division (Post eCommerce Parcel): initiated the program
- Couriers: contributed to an ergonomic vehicle design
- Operations: aligned delivery, fleet and site processes/ infrastructure
- Sales: markets the program

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

• Finding the right partner(s) for SDG-inspired innovation who share vision

VALUE TO SDGS (HIGH-LEVEL)

- SDG 8.5: Improved working conditions for delivery workforce through improved ergonomic vehicle design
- SDG 11.6: Improved quality of life in cities due to improved air quality and reduced noise levels

EXAMPLE 2 – ILLUSTRATING HOW TO CONSIDER DIGITALLY ENABLED BUSINESS MODELS

DEUTSCHE BAHN – DB MINDBOX ACCELERATOR

INNOVATING DEUTSCHE BAHN'S BUSINESS

The DB Mindbox is an open-innovation platform for Deutsche Bahn to team up with start-ups and developers for innovating DB's business. It aims for creative and scalable solutions for sustainable mobility and logistics – with a clear, digitally enabled focus. DB Mindbox has worked with more than 30 start-ups so far to bring their ideas to life and make them marketable. Further batches will follow to address challenges in other business units of Deutsche Bahn and enhance the ambition of the company's sustainable strategy DB2020+.

HOW DEUTSCHE BAHN HAS DONE IT / IS DOING IT

- Deutsche Bahn offers open data for free usage on a web-based portal and invites start-ups for digital-infused innovation in the DB Mindbox
- The "challenges" and "batches" call for applications on how to improve DB's business within the scope of DB2020+, integrating environmental, social and economic aspects alike
- Start-ups present their cases on a pitch and selection day and the best solutions are carefully selected by a jury of Deutsche Bahn and external experts. The winners get funding, access to Deutsche Bahn's know-how, a free working space and mentoring to bring their ideas to life. To prove their concept, start-ups are offered a real testing opportunity within Deutsche Bahn's system
- Results include innovation such as green walls for railway stations to improve air quality, a sharing-concept for e-scooters as well as a mobile, wireless and sustainable power source through transforming vibrations into electricity
- After that, further partnering is assessed and start-ups are offered a membership in the "DB Mindbox" alumni network

MAIN INTERNAL STAKEHOLDERS

- DB Mindbox: initiated and runs the program
- DB Business Units: select and mentor the winners
- Corporate Strategy: brings in strategy and sustainability perspective
- DB Digital Ventures: offers potential investment

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

- Partnering with start-ups requires big companies to adapt to start-up needs like speed or short and binding decision-processes.
- Great ideas do not automatically imply a real business case. Therefore, companies must be open to the possibility that some of the start-ups will fail.

VALUE TO SDGS (HIGH-LEVEL)

- Potentially all, depending on the specific innovation "challenge", but selected main targeted SDGs
- SDG 9.1: Quality, reliable and sustainable infrastructure
- SDG 11.2: Safe and affordable transport systems

BUSINESS VALUE (HIGH-LEVEL)

- Increase of intangibles:
 - Enhances new technologies for DB's core business and digital user experience of customers
 - Drives change towards a new culture of work by learning from start-ups
 - Increases attractiveness of Deutsche Bahn as a brand and within the start-up community (network of about 700 start-ups so far)
- Revenue increase: Future-proofs DB's business model and opens new revenue opportunities

ROLE OF DIGITALIZATION

NOTES:

• Serves as a core inspiration for products/services and business model innovation

..Alianed with our DB2020+ Strategy, innovations at DB Mindbox are aiming at linking economic, societal and environmental value. Partnering with start-ups is a great way to come up with 'out of the box' innovation. But companies have to keep in mind that it's no panacea. Real innovation power requires cultural change and a strong commitment of the organization." ONNO SZILLIS.

HEAD OF DB MINDBOX, DEUTSCHE BAHN AG



PRACTICE 3

ENABLE USERS TO HARNESS SUSTAINABILITY BENEFITS DURING **PRODUCT/SERVICE USE**

Enabling users to harness sustainability benefits during product/services use is about helping users understand how they can profit from or enjoy positive sustainability impacts during the use phase. This comprises that companies analyze the use phase of products and/or services and their impacts on the SDGs. The practice can immensely profit from the people-centricity of digital solutions. It can help increase the emotional engagement of existing customers, contribute to higher revenues per customer and open access to new customer segments.

HOW TO DO IT

- Prioritize products/services with a high SDG impact and good financial performance
- Develop a qualitative cause-effect chain of how products/services can impact relevant SDGs during use phase
- Quantify selected sustainability benefits, e.g., environmental, social and/or economic, for customers in use phase of products and/ or services
- Check how augmenting your products/ services with digital solutions could inform, nudge and/or reward sustainable behavior of users
- · Communicate benefits in marketing materials for example, CO_2 emissions to be saved by B2B customers
- Train marketing and aftersales departments to enable customers to harness these benefits

MAIN INTERNAL STAKEHOLDERS (BEYOND CR/SUSTAINABILITY)

- Product Management: benefits from an improved competitive positioning by providing an additional value add to customers
- Marketing: helps to formulate product benefits
- Aftersales: supports customers to harness benefits

HOW DIGITALIZATION CAN DRIVE THE TRANSFORMATION

- Increases transparency and traceability of impact
- Offers the chance to create new, digitally enabled business models, for example, platform or "as a service" models

PRACTICE FOCUS

88 Use phase of products and/or services

VALUE TO SDGS

Value direction	SDGs
Increase positive impacts	Potentially all
Decrease negative impacts	(depending on the industry)

POSSIBLE SUCCESS METRIC

Enabled [insert positive impact metric depending on product/service, e.g. enabled CO, emissions reductions] by product use

BUSINESS VALUE*

Revenue increase, e.g. enhanced customer value proposition (B2B and B2C); access to new customer segments	Intangibles increase, e.g. increased customer loyalty, improved employer branding
Cost reduction, e.g.	Risk reduction, e.g.
only indirectly and in	only indirectly and in
the longer term	the longer term

PRACTICE MATURITY

Emerging

*Legend:

- main drivers
- secondary drivers
- indirect impact or no impact

3

Bayer

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

Bayer Digital Farming envisions selling outcome-based services – for example, weed-free field vs. a bottle of herbicide. One of Bayer's big challenges is that two business models are supported – i.e., selling outcomes vs. product units.



"Digital Farming

VALUE TO SDGS (HIGH-LEVEL)

- SDG 2.4: Resilient agricultural practices that increased productivity Better use of resources and risk management can increase yields by ~25%, reduced weather related damaged crops ~25% and more nutrient dense food
- SDG 8.2: Achieve higher levels of economic productivity The use of scouting apps in large farm operations and by smallholder farmers, enabled through widespread smartphone adoption,⁴¹ increases productivity and yield and leads to higher profits
- SDG 15.1: Sustainable use of terrestrial and inland freshwater ecosystems by customized agronomic solutions help protect the soil and biodiversity through reduced use of crop protection products and better use of water

improves our competitive positioning while enabling our customers to farm more efficiently and sustainably. Our business proposition optimizes the decisionmaking process and increases our customers' competitiveness through gains in productivity and cost-cutting." TOBIAS MENNE, GLOBAL HEAD DIGITAL FARMING,

BAYER AG

BUSINESS VALUE (HIGH-LEVEL)

• Revenue increase: Digital Farming contributes to enhance the product portfolio of Bayer delivered through a services business model, thereby securing revenue generation and growth in the digital "as a service" age

ROLE OF DIGITALIZATION

- Enables innovation and new business models i.e., outcome-based, decision-making tools for yield increase or "personalized nutrition" for crops based on real time data – and higher efficiencies through data analytics
- Enables access to knowledge and information for farmers and protection of the environment through sustainable farming practices
- Automates processes thereby helping to mitigate labor shortage and increasing safety
- Opens new professional fields which help that a higher number of young city professionals from exact sciences become involved in agriculture technology (computer science, statistics, mathematics, etc.)
- Drives changes in the regulatory environment fostering the development of a digital infrastructure to transfer data quickly and reliably and facilitating the creation of a data ecosystem

EXAMPLE –

ILLUSTRATING HOW DIGITAL SOLUTIONS CAN HELP HARNESS SUSTAINABILITY BENEFITS DURING PRODUCT USE

BAYER – DIGITAL FARMING ACCELERATES FARMERS' ABILITY TO INCREASE CROP YIELDS IN A SUSTAINABLE MANNER

Digital Farming accelerates farmers' ability to increase crop yields in a more sustainable manner. It benefits the farmers' operations by simplifying the planning effort, lowering the amount of crop protection product applications, reducing the risk of wrong applications and achieving better prevention of pests and diseases. It enables more solutions-oriented interactions with growers via data and analytics. The function was created in 2014. Since 2016, ~100,000 users or 5 million hectares in 60+ countries have been implementing "Digital Farming" applications. Currently, the scouting App has ~2000 new users per day. Digital Farming products are planned to be expanded to additional crops and more countries.

HOW BAYER HAS DONE IT / IS DOING IT

Identifies the benefits of digital solutions in agriculture – for example, potential for yield increase and reduced use of crop protection products through data-driven, more precise application timing and dosing

- Takes a science-based approach to deliver positive impact for example, collaborating with various external research partners to develop a modular computational framework built on spatial statistics
- Enables agronomists to understand the effect, relative importance and distribution of influencing growth factors on observed crop yield
- Provides real-time data which combined with agronomic expertise results in clear recommendations – for example, for optimized spray times and zones crop protection product application
- Takes a customer-centric approach for example, collaborating with partners in the development of mobile imaging technology to determine, for instance, the nutrient or nitrogen status and requirements of the plants with a smartphone app
- Ongoingly expands in terms of crops, regional availability and development of new digital tools

MAIN INTERNAL STAKEHOLDERS

- R&D: integrates greater number of complimentary competencies and brings in agile scrum methodology to acknowledge the impact of digitalization across the entire business and to plan with a much higher number of scenarios than before
- Sales & Marketing: promotes and sells Digital Farming products, and thereby, the more efficient use of Bayer products and Bayer competitors' products. Albeit this might seem counter intuitive, helping farmers to increase productivity and profitability in a changing environment, as well as the industry long-term sustainability is at the core of Bayer's vision

PRACTICE 4 PURSUE SDG-ORIENTED MARKET STRATEGY

Pursuing an SDG-oriented market strategy provides a better understanding of the socio-economic environment of a company and its business activities. The practice strives to identify gaps for positive business contribution to a country's or region's development. Thereby, it can help to innovate for business solutions that address social/environmental needs, open new business opportunities and improve liaising with local partners and customers. HOW TO DO IT

- Define methodology and business case to analyze SDG impact of whole value chain, including supply chain, own operations and products/services use phase
- Take a market-specific approach (country or region-level) to improve validity and relevance of impact and business case
- Quantify impacts where possible, embed into description of qualitative impacts across the value chain
- Integrate SDG-oriented market analysis in business development, business strategy, company and product positioning, for example, in sales conversations and stakeholder/ customer engagement strategies

MAIN INTERNAL STAKEHOLDERS (BEYOND CR/SUSTAINABILITY)

- CEO and Strategy: benefit from a broader view to identify strategic risks and growth opportunities
- Regional/Country Leads and Business Units: gain a better market understanding and positioning
- Marketing, Sales and Communications: benefit from more evidence-based information about the company's and/or product's positive contributions to society

HOW DIGITALIZATION CAN DRIVE THE TRANSFORMATION

- Enables easy measurement and steering through access to data
- Provides strategic capabilities through predictive data analytics
- Increases transparency and traceability through data availability
- Allows for higher speed and reach of communication

PRACTICE FOCUS

😋 General company management

VALUE TO SDGS

Value direction	SDGs
Increase positive impacts Decrease negative impacts	Potentially all (depending on the industry)

POSSIBLE SUCCESS METRIC

Share of sales generated through integrating SDG impacts in product and/or company positioning

BUSINESS VALUE*

evenue increase, e.g.	Intangibles increase, e.g.
nproved market	enhanced brand value,
enetration by new	improved relationships
narket insights	with local actors
ost reduction, e.g. educed rate of narket failures	Risk reduction, e.g. reduced reputational risks by addressing social and environmen- tal challenges

PRACTICE MATURITY

Emerging

C

re

*Legend:

- main drivers
- secondary drivers
- indirect impact or no impact

ILLUSTRATING HOW SDGS CAN PROVIDE A

SIEMENS – BUSINESS TO SOCIETY-APPROACH

FRAMEWORK FOR A BROADER UNDERSTANDING

OF A COMPANY'S IMPACT ON SPECIFIC MARKETS

SIEMENS Ingenuity for life

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

- Countries do not always relate their goals to SDGs: "take the intention, not the letter"
- Consciously decide on the regional level of KPI measurement: often, the local level is more adept/relevant to the target group than an extrapolation to the global level
- Beware of the quantification metrics: monetization of impact does not always serve the purpose of your impact valuation

VALUE TO SDGS (HIGH-LEVEL)

• Potentially all SDGs, with differing intensity degrees (high relevance SDGs include SDG 3, 7, 9, 11 and 13)

BUSINESS VALUE (HIGH-LEVEL)

- Revenue increase: gaining sales with public clients asking for a local value contribution, identifying business and portfolio opportunities though early stakeholder engagement and change in perspective
- Intangibles increase: uplifting brand value and employee engagement

ROLE OF DIGITALIZATION

- Enabling role to improve data analytics and transparency in reporting
- Driver for technology innovation to create impact



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"Strategic insights from the Business to Society-analysis facilitate our interaction with customers, applicants, politicians and institutions and improve our brand value in Germany." UWE BARTMANN,

CEO SIEMENS GERMANY

HOW SIEMENS HAS DONE IT / IS DOING IT

EXAMPLE 1 –

• Prioritizes SDGs based on the influence by Siemens via four levers: portfolio, operations, thought leadership and Corporate Citizenship (high influence: direct contribution through portfolio, medium: own operations; low: indirect contribution, for example via customers or only via minor part of business)

With the Business to Society-approach, Siemens takes a global, country-, project- or site-level ap-

mens had completed studies in 18 countries and is working with an additional 14 to inform their

wards B2G customers. The results will be challenged and updated on a regular basis.

proach to demonstrate its contribution to SDGs relevant to the local context. By summer 2017, Sie-

market positioning, opportunity development and customer engagement strategies specifically to-

- Identifies the topics relevant for sustainable development in a country and understands which goals the country has set itself (including national implementation plans of SDGs), for example, in terms of economic growth and the creation of local jobs, skills development and further education, innovation, environmental protection, quality of life and societal transformation. Prioritizes topics that are important to Siemens' stakeholder groups
- Identifies gaps between country ambition and current status. Measures Siemens' contribution against KPIs - depending on the most vital issues of the country and illustrates it in a Business to Society-Value Map that points out either global or country-level contributions to SDGs and national sustainable development priorities (for example, GDP contribution through business activities, jobs enabled in developing countries, or tons of CO₂ saved)
- Helps Siemens to develop business opportunities and to better position its business activities in a country or with a specific project, for example, when Siemens supplies infrastructure or builds a plant
- Plans to increase engagement with national decision makers to help achieve SDGs

MAIN INTERNAL STAKEHOLDERS

- Country CEO: acting as executive sponsor
- Corporate Sustainability: driving the methodology
- Strategy/Business Development and Communication: driving the project in close cooperation
- Local Management team including Business Lines, HR, Sales, etc.: ensure topic selection/ information is relevant to target groups and provide data from their respective fields

NOTES:

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Ontinental

"Considering climate change in our strategic thinking and product development, positions us well to best serve the environment, the society and customers' needs. Climate change is one of the most relevant issues affecting our entire industry. We as a technology leader develop futureorientated solutions for global mobility. We support the goal of clean air and help to mitigate climate change with our products."

KURT LEHMANN, CORPORATE TECHNOLOGY OFFICER, CONTINENTAL AG

EXAMPLE 2 – ILLUSTRATING HOW A STRATEGIC FOCUS SDG INFORMS MARKET STRATEGY OF SEVERAL BUSINESS DIVISIONS

CONTINENTAL – INTEGRATING SDG13 INTO MARKET STRATEGIES

In 2012, Continental identified climate change and the related CO_2 emission reduction needs of its customers as a strategic priority. Therefore, CO_2 reduction is now being strategically embedded in product development across divisions.

HOW CONTINENTAL HAS DONE IT / IS DOING IT

- Identified customer needs for more emission friendly supply of goods
- Prioritized helping customers get to zero emissions as a strategic business goal (SDG13, climate change)
- Set up "CO₂ reduction technology" unit in strategy department to identify emission reduction priorities
- The CO₂ reduction technology unit engages with all business divisions, for example, Tire
 or Interior, to come up with emission-friendly products, for example, tires with highly improved
 rolling resistance, lighter vehicle interiors, better aerodynamics or highly efficient exhaust
 technologies
- Cross-divisional teams develop go-to-market and positioning of product benefits in customer interaction

MAIN INTERNAL STAKEHOLDERS

- Corporate Technology Officer: benefits from future-proofing Continental's strategy and positioning as preferred supplier
- Business divisions: benefit from being able to satisfy B2B customers' emerging needs

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

• Be aware of the quantification metrics: monetization of impact does not always serve the purpose of impact quantification

VALUE TO SDGS (HIGH-LEVEL)

SDG 13

BUSINESS VALUE (HIGH-LEVEL)

- Revenue increase:
 - huge business case in terms of expected sales, given emerging regulation on reducing emission values or prohibiting high-emission vehicles to drive in certain areas
 - In 2016 approx. 11.6 billion € sales were generated with products for energy efficiency and CO, reduction
- Risk reduction: ensure compliant products, already conform with tomorrow's regulation

ROLE OF DIGITALIZATION

- Provides new technologies for business development, for example, digital solutions like Car2X enabling path towards zero emissions
- Improves data analytics and transparency to improve driver behavior

NOTES:

PRACTICE 5

INTEGRATE SUSTAINABILITY IN PRODUCTS AND SERVICES PORTFOLIO MANAGEMENT

Integrating sustainability in products and services portfolio management helps to reduce risks along the value chain and to improve the social, environmental and economic impact of a company's products and/or services. The segmentation and strategic steering of the product portfolio is an essential driver for change towards the SDGs, as it provides transparency and is directly linked with core business development, strategy and innovation. With its risk reduction and positive impact potential during customers' use phase, it has a strong business case to protect a company's license to operate and to grow.

HOW TO DO IT

- Segment product portfolio based on environmental, social and economic SDG risks and benefits into sustainable, neutral and risky product segments
- Set targets to increase share of sustainable products and to decrease share of products with risks
- Define activities to reach targets, for example, design of next generation of sustainable products and mitigation actions for risky products
- Link individual performance targets to defined sustainability portfolio targets
- Train product and marketing managers to integrate sustainability benefits in customer conversations
- Regularly track business success of portfolio segments with KPIs such as growth rate and/ or enabled benefits through sustainable portfolio segments

MAIN INTERNAL STAKEHOLDERS (BEYOND CR/SUSTAINABILITY)

- Business Units / Brand Management and Product Management: benefit from improved B2B customer relationships, reduced portfolio risks and future-proof value chains
- Strategy: gets improved strategic foresight of potential portfolio risks
- Innovation / R&D: integrates more sustainability aspects in innovation process and benefits from additional ideas linked to ongoing societal disruptions (see also practice 2)
- Finance: connects financial performance management of portfolio with sustainability performance management

HOW DIGITALIZATION CAN DRIVE THE TRANSFORMATION

- Makes measurement and steering of big amounts of data easier and more efficient
- Enables the creation of an easy-to-use digital tool for all people involved
- Helps to plan strategically via predictive data analytics

PRACTICE FOCUS



VALUE TO SDGS

Value direction	SDGs
Increase positive impacts	Potentially all
Decrease negative impacts	(depending on the industry)

POSSIBLE SUCCESS METRIC

- Growth of share of revenues of sustainable product segment
- Enabled benefits KPI, e.g., CO₂ emissions savings through product portfolio or number of additional people benefitting from a socially good service

BUSINESS VALUE*

Revenue increase, e.g. Intangibles increase, e.g. faster growing preferred partner for share of sustainable B2B customers appreproducts than rest ciating to buy more of the portfolio (see sustainable products Unilever) to support their own sustainability targets Cost reduction, e.g. Risk reduction, e.g. only indirectly or maintain license to when integrating prooperate by offering valuable products/ cess efficiency into the approach services

PRACTICE MATURITY

Existing

*Legend:

main drivers

- secondary drivers
- indirect impact or no impact

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BUSINESS VALUE (HIGH-LEVEL)

- Revenue increase: Accelerator products are characterized by, on average, higher profitability and higher relative growth, their share from overall revenues growing from 23.3% in 2013 to 27.2 % in 2016

- Intangibles increase: Improved B2B customer relationships
- Risk reduction: reduced exposure to portfolio risks

ROLE OF DIGITALIZATION

- Helps to transparently analyze data and track and trace success
- Eases global collaboration of different departments



ALEXANDER WAESCH, MARKETING MANAGER DISPERSIONS FOR ARCHITECTURAL COATINGS. BASF SE

tainability and business

value can go hand in

hand."

EXAMPLE – ILLUSTRATING HOW SUSTAINABILITY CAN BE INTEGRATED INTO PRODUCTS AND SERVICES PORTFOLIO STEERING

BASF – SUSTAINABLE SOLUTION STEERING®

With the Sustainable Solution Steering[®], BASF has built an instrument to steer the sustainability performance of its products and services portfolio. Since 2014, BASF has assessed over 60,000 products and used the resulting portfolio segmentation twofold. Firstly, to further develop highly sustainable solutions and increase their share, and secondly, to reduce the share of less sustainable products.

HOW BASF HAS DONE IT / IS DOING IT

- Developed a segmentation methodology based on sustainability needs and trends of value chains
- Assessed the sustainability contribution of its products in its specific application considering industry and region specific views and assigned each product to one of four categories (Accelerator, Performer, Transitioner, Challenged)
- Utilized segmentation systematically to steer entire portfolio towards more sustainable solutions with >60% of R&D budget spent on Accelerator projects
- >2,000 experts involved worldwide for example R&D, Product Safety, Sales, Marketing, Sustainability
- Is integrating sustainability into strategic, R&D and customer support processes and safeguards contribution by each business unit with Sustainable Solution Steering® targets
- Communicates targets publicly, for example, 28% sales share of Accelerator solutions in 2020 and applies them to every business unit

MAIN INTERNAL STAKEHOLDERS

- Product Safety: benefits from enhanced view on product safety requirements along the value chain from raw materials to end consumer
- Marketing: integrates sustainability value in product positioning and benefits from differentiation at B2B customers

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

 Resource-intensity: Methodology requires continuous update both in terms of content validity and data structure

VALUE TO SDGS (HIGH-LEVEL)

- SDG 6.3: Clean water and sanitation, by offering water treatment solutions
- SDG 9.4: Industry, innovation and infrastructure, by actively enforcing innovation for sustainable solutions
- SDG 12.2: Responsible consumption and production, by developing more sustainable production procedures
- SDG 13.1: Climate action, by offering products for climate protection

NOTES:



PRACTICE 6

RE- AND UPSKILL EMPLOYEES TO INTEGRATE SDGS IN DECISION-MAKING

Re- and upskilling employees to integrate SDGs in decision-making addresses the need of organizations and their people to learn and adapt over time. The practice helps leaders and employees to be able to "think out of the box" and in systems – competences ever more needed in today's era of digital and societal disruption. Companies can better future-proof their business, reduce the risks of shortsighted decision making and experience higher levels of employee engagement.

HOW TO DO IT

- Analyze potential skill needs and gaps towards more SDG-oriented business activities, also considering skills required for digitally enabled innovation
- Broaden skills development within the company with new necessary meta-competences like dilemma management and systems thinking and with SDG-specific knowledge
- Complement company's HR strategy for recruiting, personnel retention and development with SDG-specific knowledge and skills, including competence models and incentive schemes
- For all trainings: rethink methodologies and relate to neuro-science based findings, for example, enrich content provision with user journey discovery and positive emotions for change

MAIN INTERNAL STAKEHOLDERS (BEYOND CR/SUSTAINABILITY)

- Human Resources: benefits from 'a sense of purpose' that improves employer branding and employee engagement
- Internal Communications: transports the message
- Business Units: benefit from more engaged employees with a wider view to harness new business potential

HOW DIGITALIZATION CAN DRIVE THE TRANSFORMATION

- Digital as a theme of skills development, for example, digital business model prototyping for SDG impact
- Supports training via e-learning tools and bots

PRACTICE FOCUS



VALUE TO SDGS

Value direction	SDGs
Increase positive impacts	4, 8 / More indirectly: potentially all (depend- ing on the industry)
Decrease negative impacts	More indirectly: potentially all (depend- ing on the industry)

POSSIBLE SUCCESS METRIC:

% of employees re- and upskilled for SDG competences in the last year

BUSINESS VALUE*

Revenue increase, e.g. only indirectly and in the longer term	Intangibles increase, e.g. higher employee engagement through "sense of purpose" at work
Cost reduction, e.g. retention cost reduc- tion through higher employee engagement	Risk reduction, e.g. aking across hierarchy levels
PRACTICE MATURITY	<i>'</i> :
Emerging	

*Legend:

- main drivers
- secondary drivers
- indirect impact or no impact

EXAMPLE 1 –

ILLUSTRATING HOW DIGITAL CHANNELS CAN SERVE TO TRAIN EMPLOYEES, CUSTOMERS AND OTHER INTERESTED STAKEHOLDERS ON SDGS IN BUSINESS



SAP - FREE MASSIVE OPEN ONLINE COURSE (MOOC) ON "SUSTAINABILITY THROUGH DIGITAL TRANSFORMATION"

In 2016, SAP launched a free and open three-week online training on "Sustainability Through Digital Transformation", focusing on the impacts and opportunities of digitalization on business success and SDGs. SAP employees as well as SAP's external ecosystem, i.e., customers, suppliers, students and professionals from other public or private partners, were invited to participate in the training. The course has reached ca. 7,000 people. The course is in line with SAP embedding the SDGs in its vision and purpose, and integrating SDGs into board-area specific short- and midterm targets.

HOW SAP HAS DONE IT / IS DOING IT

- Developed video-based lectures comprising 3 weeks à 4-6 hours, on how to leverage digital innovation to transform and change industry sectors along the examples of selected SDGs Developed a web book on SDGs for companies to enable participants to prepare for the course. Puts (and keeps until today) multimedia content available at www.sap.com/unglobalgoals, including short editorials and data visualizations on each SDG, customer videos and stories
- Conducted a three-month promotion campaign across internal and external communication channels to drive registration for and participation in the MOOC
- Offered online forums for participants to exchange and jointly learn throughout the course and provides the opportunity to finalize the training with a final exam and certificate
- As next steps, a re-run of the course including new option to achieve certificate is planned in October 2017 on https://open.sap.com/courses/sbi2-1 and an exchange platform and virtual coffee corners are facilitated bringing together an extended community of stakeholders from different areas driving SDG-related initiatives

MAIN INTERNAL STAKEHOLDERS

- Sustainability and Product Development: prepare content, video lectures, online discussion
- Learning experts from openSAP Team: run project management and technical execution
- Corporate Communications: engage employees
- Marketing: engage partners

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

• A one-time learning offer might be limited in its potential to change routines: it needs to be complemented by consistent integration of SDGs as business opportunity into management objectives, business plans, innovation process, customer engagements, communication, leadership behavior and role modeling, etc.



VALUE TO SDGS (HIGH-LEVEL)

- SDG 4.3 and SDG 4.4: Vocational training and skills development
- Potentially also all other SDGs, as participants of the course learn how to harness digital solutions for SDG achievement in several sectors

BUSINESS VALUE (HIGH-LEVEL)

- Intangible value increase:
 - o SAP positioned as a forward thinker
 - o Increased potential for SDG-related innovations
 - o Increased employee engagement by inspiring through purpose

ROLE OF DIGITALIZATION

- Enables access and flexible consumption from anywhere for anyone at any time to the training beyond physical class-room formats
- Provides main part of the content of SAP's MOOC

employees to embed the SDGs into their daily work, we provide them with a great framework to put SAP's vision "to help the world run better and improve people's lives" into action and foster employee engagement." DR. BERND WELZ, CHIEF KNOWLEDGE MANAGER, SAP SE

NOTES:

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VOLKSWAGEN

CompaniesForChange



EXAMPLE 2 – ILLUSTRATING HOW DIGITAL SHAPES SUSTAINABLE FORMS OF COLLABORATION

VOLKSWAGEN – DIGITAL REALITY HUB

Volkswagen harnesses the power of virtual reality (VR) and augmented reality (AR) to enable cross-country /-functional collaboration to respond to the introduction of e-mobility as well as the increasing digitalization and automation in its plants. The Digital Reality Hub is a system, which enables this change. It is a multi-user VR/AR environment and connects systems, users and data for realizing specific VR projects fast and at low costs. Projects in the Digital Reality Hub allow VW to evaluate the most effective way to manufacture cars through VR collaboration, to set up new training scenarios for the necessary requalification of employees and to save costs and CO₂ emissions from travelling to other sites. The first activities started in January 2017.

HOW VOLKSWAGEN HAS DONE IT / IS DOING IT

- Identifies the challenges arising from digitalization of production and workforce planning and analyzes how VR can help turn them into opportunities
- Develops a central collaboration platform to connect people in VR, no matter where they are
- Captures 360° movies to allow users to capture their processes and share them with others
- Provides 3D Models of factories, objects and vehicles in one platform (Asset Store) and enables users to use the objects in VR to create their own content
- Gives users possibilities to create their own space/ for their content and share it with others
- Creates an open platform for the employees, to which everyone can contribute

MAIN INTERNAL STAKEHOLDERS

- Production planning: Enables digital planning of factories in real-time without the need of building things physically, for example, production machines, prototypes
- Brand management and process planning: Evaluate new, effective processes from different plants and discuss the implementation in other factories without the need to travel
- Shop floor employees: Get individual training based on skill level and qualification grade decoupled from production cycle and without time or social pressure
- IT: Enables the realization of quick VR prototypes and realizing scenarios fast, without the need to code everything from scratch, saving time and money

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

Integrating the existing planning and master data systems to use the existing 3D data in VR is very complex

VALUE TO SDGS (HIGH-LEVEL)

- SDG 4.3: fast, easy and cheap solutions to train employees for new technology and, thus, ensure their constant employability
- SDGs 8.2, 8.4 and 8.8: improved productivity and technological upgrading; increased resource efficiency and decreased likelihood of accidents in contact with new production machines and prototypes
- SDG 12.2: decreased waste volumes and improved the working processes

• SDG 13: reduced business travels decreasing carbon emissions

BUSINESS VALUE (HIGH-LEVEL)

- Costs savings:
 - o Travels costs savings
 - o Less machines and space needed in training centers
 - Decreased time needed for trainings and process workshopsReduced iterations of special equipment creation
- Intangibles increase:
 - Increased employee engagement and motivation through provision of state of the art technology
 - Increased potential of SDG-related innovation by open platform collaboration
- Risks reduction:
 - o Reduced risk of missing schedules for new factories / models

ROLE OF DIGITALIZATION

• Is at the core of VW's hub, providing the technology to change how enterprise collaboration works

NOTES:

"Digitalization and automation will change our work environment and products massively. The Digital Reality Hub connects people, brands and machines and helps us to master arising challenges in an efficient and sustainable way." DENNIS ABMEUR,

IT LEAD VOLKSWAGEN DIGITAL REALITIES

PRACTICE 7 ADVOCATE FOR SDG-SUPPORTIVE POLICIES

Advocating for SDG-supportive policies aims at establishing a policy environment that is favorable for business activities with a positive SDG impact, for example, incentivizing positive impacts. The practice promotes a stable policy framework that creates fair and transparent market rules, applicable nationally and internationally. If successful, this will help companies to make the business case for strategies and/or practices towards improved SDG impact.

HOW TO DO IT

- Identify and prioritize existing policy gaps, considering their potential contribution towards the SDGs, for example, CO₂ pricing
- Define strategy of how to advocate, for example, alone or as part of a coalition, cross-industry or industry-specific
- Actively engage with policy makers and/or within the coalitions to infuse decisions that support SDG impact, and their ability to enable fair market conditions

MAIN INTERNAL STAKEHOLDERS (BEYOND CR/SUSTAINABILITY)

- CEO and Strategy: benefit from policies that support steering the company towards improved SDG impact
- Legal: ensures engagement does not have conflicts of interests
- Public Relations: takes care of appropriate communication

HOW DIGITALIZATION CAN DRIVE THE TRANSFORMATION

 Supports higher reach and speed of communication and campaigns by using social media

PRACTICE FOCUS

🚫 Ecosystem engagement

VALUE TO SDGS

Value direction	SDGs
Increase positive impacts	Potentially all
Decrease negative impacts	(depending on the industry)

POSSIBLE SUCCESS METRIC

n.a. (success takes place in the ecosystem)

BUSINESS VALUE*

Revenue increase, e.g. only indirect via improved brand rec- ognition, specifically with B2B customers (in the longer term)	Intangibles increase, e.g. strong and collabora- tive relationships with governments, regu- lators and interested parties
Cost reduction, e.g. only if advocating was successful: reduced costs for negative externalities	Risk reduction, e.g. prevention of flawed regulations
PRACTICE MATURITY	,
Exisiting	
*Legend: main drivers	

- secondary drivers
- indirect impact or no impact

EXAMPLE – ILLUSTRATING HOW COMPANIES CAN ENGAGE IN COALITIONS FOR SDG-SUPPORTIVE POLICIES

WE MEAN BUSINESS

NOTES:

WE MEAN BUSINESS COALITION – ADVOCATING FOR A LOW CARBON ECONOMY

We Mean Business is a coalition of private and public actors that recognizes that the transition to a low carbon economy is the only way to secure sustainable economic growth and prosperity for all. 768 companies from all over the world have signed the We Mean Business Coalition so far. The platform encourages innovation and helps ensure sustained economic competitiveness by promoting regulatory requirements publicly. Currently, 14 econsense member companies are engaging in the We Mean Business coalition.

HOW COMPANIES CAN ENGAGE

- Companies can publicly commit to action and are encouraged to support one or several defined initiatives towards a low carbon economy, for example, putting a price on carbon like Nestlé, Novartis, Unilever, Statoil, or Veolia
- Companies that make a commitment to putting a price on carbon, agree to align with the UN Global Compact's Business Leadership Criteria on Carbon Pricing:
 - o Set a material internal carbon price, which is integrated into "must" investment decisions
 - o Advocate the importance on carbon pricing through policies
 - o Communicate progress and improvement publicly
- All commitments are automatically fed into the UNFCCC's Non-State Actor Zone for Climate Action (NAZCA) online portal, to jointly encourage smart climate policies
- Ongoing mobilization of companies to commit to low carbon economy

POTENTIAL CHALLENGES TO TAKE INTO CONSIDERATION

• Carefully review motivation of coalition partners to avoid being associated with potential green washing accusation

VALUE TO SDGS (HIGH-LEVEL)

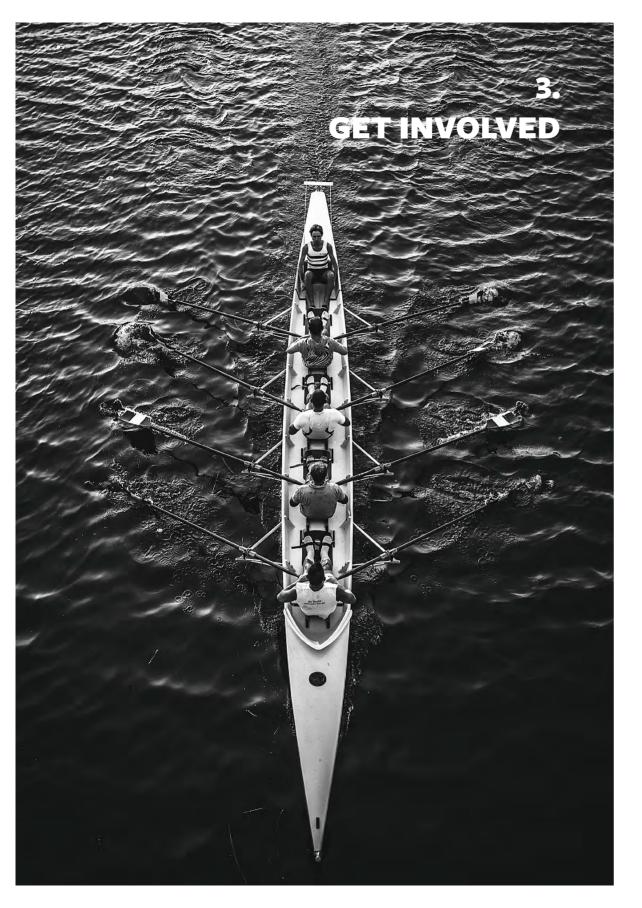
- SDG 13.2: Climate action by advocating for policy to reduce greenhouse gas emissions
- SDG 17.16: Global partnership for sustainable development complemented by multi-stakeholder partnerships

BUSINESS VALUE (HIGH-LEVEL)

- Risk reduction:
 - o Identification of new ways of business as traditional ones are expected to be outdated
 - o Prevent flawed regulation by a lack of stakeholder dialog

ROLE OF DIGITALIZATION

- Enables global collaboration and exchange of knowledge and data, for example, CDP data
- Helps to get the message across by registering global commitments to action by companies, cities and investors, for example, NAZCA



#CompaniesForChange

The authors hope that this handbook has provided you with context and inspiration for concrete practices to initiate change towards SDG achievement in your company. Now it is time for you to get involved. To introduce practices that have a positive impact and a business case. And to harness the power of digitalization.

YOUR TWO MAIN ENGAGEMENT AREAS COULD BE:

Start change in your own company:

- Check how the selected practices presented in this handbook could be applied to your company
- Be ambitious for change take into consideration your entire value chain
- Think new innovate considering the chances of digital disruption and the transformative vision the SDGs provide
- Make the business case think change in line with business value, this will help mobilize resources and buy-in from relevant internal stakeholders
- Engage with the right internal partners team up for knowledge exchange and co-funding of projects
- Include your suppliers and customers in the journey for change co-innovate also with stakeholders up- and downstream your core business activities

Learn from peers:

- Learn from company examples in this handbook
- Engage in project groups within econsense on SDG achievement and digitalization
- Join and/or kick-start function-specific expert workshops, in existing industry- or cross-industry coalitions or as specific task forces

The authors of this handbook hope that it might serve as a useful companion on your journey.

IOTES:		

NOTES:

- 1. **Meadows et. al,** "The Limits to Growth: a report for the Club of Rome's project on the predicament of mankind", 1972
- 2. **Prof. Dr. Stefan Schaltegger**, keynote speech on 22nd September 2016 at the EMAN Conference in Lüneburg, Germany
- 3. Bundesumweltamt, "Emissionsquellen", 2016
- 4. Germany aims to cut greenhouse gas emissions by 40% by 2020 and up to 95% by 2050, compared to 1990 levels. With a stagnated reduction level of 28% over the last years, experts doubt that Germany will be able to achieve its goals. (Source: Bundesumweltamt, "Treibhausgas-Emissionen in Deutschland", 2017)
- Accenture Strategy Analysis based on: a.o. United Nations; Science Daily; The Independent, "Climate change may be escalating so fast it could be 'game over', scientists warn", 2016; Figueres, Christina et al., "Three years to safeguard our climate", in: Nature no. 546, pp. 593-595, 2017
- Quarmyne, Nyani, "The Ghanaian villages destroyed by climate change", in: The Guardian, 2016; Tagesschau, "Totope - ein Dorf versinkt", 2017
- 7. The UN, "The Millennium Development Goals Report 2015", 2015
- 8. United Nations Educational, Scientific and Cultural Organization (UNESCO), "Education for people and planet: Creating sustainable futures for all", 2016
- 9. Global e-Sustainability Initiative (GeSI) & Accenture Strategy "Status of the World Analysis" in "#SystemTransformation", 2016. For Germany, also check: Destatis, "Nachhaltige Entwicklung in Deutschland. Indikatorenbericht 2016", 2017: Germany tracks its progress regarding SDG achievement by 63 agreed-on indicators. Currently, Germany is in line with SDG achievement by 2030 in 43% of all cases, while 16% of the indicators report a reverse development. Moreover, in latest years, just 18% of the indicators developed in favor of SDG achievement, 52% stagnated and 30% deteriorated
- The UN Global Compact & Accenture Strategy CEO Study, "Agenda 2030: A Window of Opportunity", 2016
- 11. The Federal Government of Germany, "German Sustainable Development Strategy", 2017
- 12. Havas Media and Accenture, "The Consumer Study: From Marketing to Mattering", 2014
- The UN Global Compact & Accenture Strategy CEO Study, "Agenda 2030: A Window of Opportunity", 2016
- 14. Accenture Strategy, DAX30 Benchmarking "On the path to purpose-driven business leveraging the strengths of Sustainability & HR", 2017, results available on request
- The UN Global Compact & Accenture Strategy CEO Study, "Agenda 2030: A Window of Opportunity", 2016
- 16. econsense & Accenture Strategy survey amongst econsense member companies, 2017
- World Business Council for Sustainable Development, "CEO Guide to Sustainable Development Goals", 2017
- 18. SDGs are analyzed taking into account the sub-goal targets of each SDG in addition to the overall SDG theme; analysis followed a conservative approach; philanthropic activities were excluded; assessment level is not necessarily applicable for all businesses within one industry group since business units within an industry can vary broadly. (Sources: Accenture Strategy analysis based on desk research and on expert knowledge of various Accenture Strategy advisors; econsense and Accenture Strategy survey amongst econsense member companies, 2017; company publications on SDG relevance, different years)
- Conclusion of industry SDG impact analysis combined with the results of the econsense & Accenture Strategy survey amongst econsense member companies, 2017
- 20. econsense member companies were able to choose among increasing positive impact, reducing negative impact, increasing positive & reducing negative and little to no impact.

When companies chose both impact directions, the result was assigned to each of the first two categories. (Source: econsense & Accenture Strategy survey amongst econsense member companies, 2017)

- 21. econsense & Accenture Strategy survey amongst econsense member companies, 2017
- 22. World Economic Forum, "Global Risks Report 2017", 2017
- 23. World Business Council for Sustainable Development, "CEO Guide to Sustainable Development Goals", 2017
- 24. Global e-Sustainability Initiative (GeSI) & Accenture Strategy, "#SystemTransformation. How Digital Solutions Will Drive Progress towards the Sustainable Development Goals", 2016
- 25. Ordered in the perceived relevance by econsense member companies, from most relevant to least relevant (Source: econsense & Accenture Strategy survey amongst econsense member companies, 2017)
- 26. Unilever, "Unilever's Sustainable Living brands contribute to drive higher rates of growth", 2017
- 27. Quoted in Global e-Sustainability Initiative (GeSI) & Accenture Strategy, "SMARTer2030", 2015
- Framework adapted to SDGs based on: Accenture Strategy, "Sustainability Value Management. Stronger metrics to drive differentiation and growth", 2016
- 29. CNBC, "BlackRock's Larry Fink warns CEOs to consider shareholders' long-term interests", 2017
- 30. Our observation of more and less relevant SDGs for business is in line with other studies on the business relevance of SDGs, for example: CSR Europe, Frost & Sullivan & Globescan, "The Sustainable Development Goals (SDGs): The Value for Europe", 2017; econsense & Global Compact Network Germany, "Sustainable Development Goals and German Business", 2016; PwC, "Make it your business: Engaging with the Sustainable Development Goals", 2015; Systain, "Relevanz der SDGs aus Sicht von Unternehmen", 2017
- Ranking based on calculation: 5 points per selection as "Top 1", 4 points per selection as "Top 2", ..., 1 point per selection as "Top 5" (Source: econsense & Accenture Strategy survey amongst econsense member companies, 2017)
- 32. Statista, "Number of mobile phone users worldwide from 2013 to 2019", 2017
- 33. Global e-Sustainability Initiative (GeSI) & Accenture Strategy, "#SystemTransformation", 2016
- 34. Carsharing-news.de, "Carsharing-Anbieter", 2017
- 35. Accenture Strategy, "Harnessing Revolution. Creating the future workforce", 2017
- 36. Global e-Sustainability Initiative (GeSI) & Accenture Strategy, "#SystemTransformation", 2016
- World Economic Forum and Accenture, "Digital Transformation of Industries. Demystifying Digital and Securing \$100 Trillion for Society and Industry by 2025", 2015.
- 38. The results of the econsense & Accenture Strategy survey amongst econsense member companies, 2017, indicate that all of the mentioned functions of digital mentioned in this paragraph are perceived to be relevant drivers for change
- 39. Digital impact highlights sources as quoted in "#SystemTransformation", 2016: Accenture Strategy analysis, based on Central Intelligence Agency, "The world factbook. Coast-lines", n.d.; Deloitte, "Value of connectivity: Economic and social benefits of expanding internet access", 2014; GeSI & Accenture Strategy, "#SMARTer2030: ICT Solutions for 21st Century Challenges", 2015; ITU, "ICT as an Enabler for Smart Water Management", 2010; ITU, "Working Together to Connect the World by 2020: Reinforcing Connectivity Initiatives for Universal and Affordable Access", 2016; Nethope et al., "SDG ICT Playbook: From Innovation to Impact", 2015; TeleGeography, "Submarine cable map", 2016; World Bank Group, "World development report 2016: Digital Dividends", 2016
- 40. Sub-targets which call for specific policies, frameworks or research and development support were classified as policy maker target. Some of them require efforts by both, governments and industries
- 41. Pew Research Center, Global attitudes survey, 2015

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econsense – Forum for Sustainable Development of German Business is an association of leading, globally active companies and organizations. econsense was founded in 2000 by the Federation of German Industries (BDI) in order to actively address sustainability challenges and promote sustainable development in business. Today, econsense is a valued contact for stakeholders in public policy, science, civil society and business alike. econsense connects its members on an international and national level and enables an open discussion of chances as well as challenges of implementing sustainability. The work of econsense is driven by the ideas, expertise and active participation of its members. In the econsense project groups, experts of member companies discuss relevant cross-sectoral aspects of sustainability management with a focus on the business case for sustainability. The members of econsense jointly promote an open dialog on the implementation of economic, social and environmental sustainability goals. For more information, follow @econsense or visit www.econsense.de

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