PILOT STUDY III · DECEMBER 2023

3rd **Value Balancing Alliance** Pilot Study

Creating value for the well-being of people and the health of our planet

value balancing alliance

Fotos: Getty Images

United as an alliance, we reshape accounting for better decision-making, sustainable transformation and corporate disclosure.

Fotos: Getty Images

Foreword

Over the past several years, global attention has shifted significantly to accelerating the development of solutions for environmental and social challenges to ensure a just and sustainable transition of the global economy. Expectations are on business to play a prominent role in creating a sustainable future. The latest Edelman Trust Barometer survey1 reinforces the role of business as a trusted global actor to affect the needed change while confidence in other institutions is diminishing.

As a result, companies are called on to share via more precise measures just how they create value in dealing with social and environmental challenges. At a policy level, the EU sustainable finance program to support the Green Deal along with developments in other jurisdictions have emphasized the need for companies to be transparent about and disclose their impacts on people and the planet. Within the financial community, investors are increasingly calling for evidence of corporate sustainability claims. And in the field of corporate sustainability disclosure, the recent release of IFRS Sustainability Standards and the European Sustainability Report Standards provide a firm foundation and incentives for companies to strengthen their sustainability agenda.

Along with this dynamism in the area of sustainability, there remains a strong desire to continue experimenting and better managing positive as well as negative externalities and other impacts to more accurately represent corporate performance and priorities. As an alliance of forward-thinking companies, the Value Balancing Alliance (VBA), together with our partner, the International Foundation for Valuing Impacts (IFVI), is developing a single common impact accounting methodology for the public good, as well as advocating for adoption globally.

Our impact accounting methodology will allow corporates and investors to translate social and environmental impacts into the language of currency, thus rendering them comparable in the same way as financial performance. Our piloting shows that impact accounting generates robust data and business-relevant information for better risk management and opportunity identification, including product development, employee retention and contribution to GDP. By presenting positive and negative impact metrics for most sustainability topics, rather than a summed and totaled number or score, impact accounting provides a solid basis for selecting information deemed relevant for decision making, identifying key value chain challenges, and taking concrete actions to improve impact performance.

The VBA is uniquely positioned to test impact accounting across various applications. The learnings from our piloting are critical for informing the further development of our common methodology. Going forward, as we work with our partner IFVI, these findings will be presented, along with information from public exposure periods, for consideration and incorporation by the Valuation Technical & Practitioner Committee (VTPC). This iterative process provides an opportunity for conversation between practitioners, standard setters, policy makers, and academia – to balance the practicality and robustness of the impact accounting methodology. It also contributes to understanding how value to society and value to business speak with one another. Many rounds of pilot testing have shown that the impacts companies have on societies and environments are increasingly related to shaping circumstances affecting company operations, revenues, expenditures, and enterprise values in markets.

Achieving a sustainable future therefore requires that company performance be measured not only in terms of profit, but also via the positive and negative impacts of the business on nature and society. Our methodology for impact accounting can play a significant role in integrating financial and non-financial values, promoting more innovative business models, including sustainable production and product portfolios. Our efforts in piloting and shaping the methodology will contribute to a bird's eye view – presenting the whole picture by escaping the narrow perspective of profit and helping transform our economy into a more sustainable one.

Paul Penepent, *Head Group Financial Reporting and Accounting, Novartis and VBA Steering Committee Chair*

1 2023 Edelman Trust Barometer Global Report, https://www.edelman.com/sites/g/files/aatuss191/files/2023-03/2023%20Edelman%20Trust%20Barometer%20Global%20Report%20FINAL.pdf

»Our business alliance is a vital laboratory. In the transition we are all in, we develop and test pragmatic solutions how to measure and value the total impact we create: for society, nature, and the enterprise. We expand financial accounting by natural, human, and social capital for better decision making, steering, planning, and meaningful disclosure.

Christian Heller, CEO, Value Balancing Alliance

»Impact Accounting is currently one of the best choices for companies to measure, assess, and represent their value contribution to society and the environment along the value chain. The multi-year piloting and practical exchange among leading companies at the VBA demonstrate that we have a tool at our disposal that will add a new dimension to our accounting and reporting."

Dr. Dirk Elvermann, Member of the Board of Executive Directors - CFO & CDO, BASF

»We firmly believe that impact accounting will transform the way in which the global economy functions affecting everything from decision making, capital allocation, risk management, opportunity identification. The result will be a just and sustainable economic system based on the true contribution of business to people and the planet. The cases of this pilot study importantly illustrate the paradigm shift in decision making and evaluation that result from impact accounting.

T. Robert Zochowski, President and CEO, International Foundation for Valuing Impacts

Fotos: Pexels / Bychlo

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1 — Introduction

The way we measure company performance has evolved over time. In the 13th century, Italian merchants expanded their business to wider parts of the Mediterranean Sea and established many local branches, attracting investments from a growing number of partners. As the scope of business activity increased and business environments changed, new methods – like double-entry bookkeeping – were needed to clearly visualize complicated transactions and accurately allocate profits to investors. In the 19th century, railway conglomerates expanded their networks, which involved substantial financing for infrastructure. To see the different costs of individual components in the rail infrastructure and allocate resources more efficiently, cost accounting was introduced.

Today, the responsibilities and business scope of companies are expanding on a much larger scale, and the way we do business is rapidly transforming.

First, the share of value not captured by existing financial accounting methodologies is increasing exponentially. According to Oceana Tomo, while in 1975 only 17% of the market capitalization value for companies in the S&P 500 represented intangible assets, today 90% of companies' value is intangible.[2] Key components of intangible assets, such as brand, relationships, and human capital, are highly related to sustainability and ESG management. Thus, ESG consideration is adding a new lens to evaluate how well a company manages its intangible assets.[3] Companies and investors are both questioning how to best measure intangible assets and make better decisions.

Secondly, to achieve net zero carbon emissions by 2050 and fulfill biodiversity/nature targets by 2030, a fundamental **transition** of business models is required. Governments are pushing for green labeling and green public procurements, and financial markets are moving fast to invest in business models that deliver clean energy and social equity. Customers are also demanding sustainable products and services. By 2030, according to a recent McKinsey report,[4] growing demand for net zero products could result in more than $12 trillion in sales annually across 11 high-potential value pools, including transport, power, and consumer goods. Companies must efficiently invest in decarbonization solutions and transform their product portfolios. To manage this transition, better data with contextualized information is a must.

And lastly, as the business world becomes hyper connected, global companies' responsibility is growing to cover much more than just their own operations. It is expanding to encompass the **whole value chain**. Far more impacts are created in upstream supply chains and downstream products and service offerings than within the direct corporate operations. According to the EPA, organizations' supply chains often account for more than 90% of their greenhouse gas (GHG) emissions, when taking into account their overall climate impacts.[5] In order to reflect this business reality, given requirements to transparently manage sustainability along the whole value chain and to engage with stakeholders such as suppliers, sub-contractors, transportation providers, and customers, a different, more comprehensive way of measuring company performance is needed, which must be comparable and easily understood.

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2 Intangible Asset Market Value Study, Ocean Tomo, Intangible Asset Market Value Study - Ocean Tomo

3 As Intangible Assets Grow, So Does The Role Of ESG Standards, Martin Jarzebowski, Forbes, As Intangible Assets Grow, So Does The Role Of ESG Standards (forbes.com)

4 Playing offense to create value in the net-zero transition, McKinsey, Playing offense to create in the net-zero transitionnet

5 EPA Center for Corporate Climate Leadership-Supply Chain Guidance, EPA, Supply Chain Guidance | US EPA

Monetization of impacts can play an important role in breaking down barriers between financials and non-financials – and in providing richer information for management. In order to paint an overall picture of corporate impacts across the environmental, social, and economic dimensions, a group of frontier companies have gone a step further than complying with existing sustainability reporting requirements: They are adopting an approach of translating impacts they create into monetary figures.

The Value Balancing Alliance was founded in 2019. Together with its partner IFVI, the VBA is developing a standardized methodology to measure and value corporate environmental and social impacts (referred to as 'impact accounting'). The VBA member companies developed a first methodology with the big 4 accounting firms (Deloitte, EY, KPMG, PwC) and have performed pilots based on it each year. Feedback and lessons learned from the piloting are key to the successive rounds of methodology development. These learnings form an important input for ongoing improvement of the methodology, subject to approval by the VTPC, as part of our partnership with the IFVI. Moreover, piloting ensures that the methodology is applicable in a practical setting and decision-useful in the real economy. We welcome companies, academia, standard setters, financial market players, and other stakeholders to join our journey and help develop an advanced system for a new economy building on the risk – return – impact logic.

The following chapters will (1) introduce the VBA methodology, including key concepts, updating and testing process, (2) share the key results of this piloting round, (3) illustrate how monetized impact can be practically applied in the real economy, and (4) present an outlook for further methodology development in 2024.

What is the VBA methodology on Impact Accounting?

Photo: Pexels / Tom Fisk

2 — Introduction to the VBA methodology

The 2022/2023 pilot of the VBA methodology (Version 0.2) includes 12 indicators and 291 sub-indicators in three impact areas (Environmental, Human and Social, Economic):

- Environmental
  - GHG
  - Air pollution
  - Water consumption
  - Water pollution
  - Land use
  - Waste
- Human and Social
  - Occupational Health and Safety
  - Training
  - Child labor
  - Forced labor
  - Living wage
- Economic
  - GVA (Gross Value Added)

All indicators are based on impact pathways (Input – Output – Outcome – Impact), an approach to delineate the route from company activities to monetized impact value. Impact pathways and calculation approaches are developed based on robust scientific research as described in detail in our methodology papers (all available on our website):

- Methodology – Impact Statement: General Paper
- Methodology – Impact Statement: Environment
- Methodology – Impact Statement: Social and Economic
- Methodology – Impact Statement: Extended Input-Output Modelling
- Methodology – Impact Statement: Downstream – Industry-Agnostic Guidance

The methodology can be applied to all industries and the entire value chain (Upstream – Own Operations – Downstream). Application of the methodology provides a holistic understanding of direct and indirect impacts created by companies, contextualizing impact information through valuation. Monetized impacts for each indicator are presented at each value chain level.

As figure 1 (next doule spread) shows, VBA methodology application consists of three steps (measurement, valuation and impact) to assess the impact of business models.

Measurement – The outputs of a company's activities or performances are quantified in physical units such as kilograms of NO_x (air pollutant) or cubic meters of water consumed, depending on the indicator (e.g., "How many kilograms of NO_x did the company release into the air in a given period?"). The quantified data for these key performance indicators are usually the same data points required in disclosure requirements like IFRS, ESRS, and GRI.

Valuation – To convert measured physical data into monetary impact values, we apply 'value factors', which represent unitary effects of company activities on society. For purposes of the diagram (see next page), the value factor is a combination of the impact pathway and data to model the impact pathway. The value factor is usually country and context specific to reflect different environmental and social circumstances. In this step, the science-based calculation logic for value to society is applied to determine the costs and benefits of company activities for the specific country in monetary terms (e.g., "How much is society affected by one kilogram of NO_x emitted in rural Germany?").

Impact – By multiplying the measured data point (first step) with the 'value factor' (second step), the impact of a company in one country for one indicator is computed in the third step (e.g., "How much is society affected by one kilogram of NO_x emitted in rural Germany? What is the monetary value of this impact?") The monetary valued impacts of each context, country, and indicator can be consolidated and compared to show a holistic picture of the positive and negative impacts the company created. With this, companies can assess overall risks/opportunities and integrate them into decision-making processes. Importantly, positive and negative impacts must not be netted, since they usually affect different stakeholders and cannot be simply "traded off". Aggregation of impacts within one indicator (e.g., impacts from NO_x in rural and urban areas in Germany) or indicators in same impact area (e.g., GHG, air pollution impact in Environment aspect) can, however, be helpful to understand the overall impacts generated – yet any such aggregation should be done with caution.

Expressing impacts in financial terms make them immediately accessible and brings previously peripheral considerations from the expert niche to the heart of business and the boardroom.[6] As we will see from the case studies below, this approach can better position companies to generate the necessary data for internal business steering as well as for external reporting.

6 Sonja Haut, The case for impact – a guide to creating value in a world of social and environmental challenges, p. 119

Measurement
Key Performance Indicator (KPI)

Valuation
Value Factors

IFVI
International Foundation for Valuing Impacts

value balancing alliance

› Based on data utilized for reporting requirements

Joint development based on:
› Research by academia
› Existing frameworks and databases
› Experience of companies

Environmental, social, and economic indicators along the entire value chain:
12 Indicators*
(GHG emissions, Air pollution, Land use, Water consumption, Living wages,...)

Units:
kg CO_2e
m³
Ha
tonnes
hours
...

Values **Cost and Benefit** of business models on Human Well-Being.

Valuation:
USD / kg
USD / m³
USD / ha
USD / hour
...

	(Quantity)	X	(Value)
Calculation Example	kg of CO_2 equivalent	X	Social Cost of Carbon
	kg CO_2e	X	USD/kg

* more indicators are under development

[Figure 1] VBA impact measurement and valuation concept piloted in 2022/2023

Impact

Key Value Indicator (KVI)

Indicator	Upstream	Own operations	Downstream
Environmental			
GHGs	-3,762,348	-1,486,265	-1,992,092
Air pollution	-1,182,436	-46,816	- 602,283
Water consumption	-341,384	-18,684	-1,472,282
Water pollution	-903,486	-70,356	-917,293
Land use	-1,322,087	-35,631	-6,027,451
Waste	-616,691	-139,114	- 271,254
Human and social			
Occupational Health & safety	-5,130,552	-18,959	-5,058,579
Training	152,116	19,714	93,228
Human rights (Child labor, Forced labor)	-2,315,346	0	-2,437,738
Economic			
Labor Compensation	18,180,308	11,097,000	11,985,071
Profit, Depreciation, Tax	18,863,790	14,856,490	10,891,837

Positive and negative value of business behavior at corporate, project and product level.

Feasibility testing and learning

= (Monetized Impact)

= Monetized societal impact of CO_2 emissions

= USD

METHODOLOGY DEVELOPMENT FOR THIS ROUND OF PILOTING AND BEYOND

We need to understand money as a set of promises, "not as a thing, but as a social technology." [7]

The piloted methodology was developed in collaboration with key players in the impact valuation community. Developing a methodology to translate sustainability performance into monetized value had to start with a process of discussion with experts, reaching consensus, and setting promises in the impact society. To attain a widely accepted impact accounting approach, the VBA collaborates with key players, including Impact Weighted Accounts Initiative (now IFVI), WEF, WBCSD, Capitals Coalition, Oxford University, GRI, WifOR, GIST, Value Commission, and OECD.

The VBA aims to align the methodology with the upcoming sustainability disclosure requirements such as IFRS S1 and S2, ESRS, GRI, TCFD, and TNFD. Through close cooperation with standard setters, the VBA is developing and adjusting its methodology in a complementary manner. The aim is for the data requirements to be aligned with the reporting requirements and for the VBA methodology to support companies to be better prepared for sustainability reporting.

The VBA also participates in fulfilling global and regional objectives such as the EU Green Deal. In consortium with the Capitals Coalition and the WBCSD (World Business Council for Sustainable Development), the VBA has led the EU-funded TRANSPARENT project since 2020 to develop a set of natural capital accounting principles and corporate implementation guidelines. The output of the project was recently published, and this publication is the world's first standardized methodology providing practical application guidance for corporate accountants in charge of establishing a natural capital accounting system (please see TRANSPARENT publications).

Since December 2022, the VBA and IFVI have joined forces to develop one common impact accounting methodology for the public good. Together, VBA and IFVI aim to develop methodologies that are business relevant, pragmatic, scalable, and transferable – building on the global sustainability reporting requirements currently being developed by standard setters. The first jointly developed methodology is the General Methodology 1: Conceptual Framework for Impact Accounting. The public expose draft of the General Methodology 1 was published in August 2023 and open for public commenting until October 16th, 2023. First topical methodologies developed in partnership with the IFVI are currently under development and will be tested in upcoming piloting to provide feedback on the practical feasibility and decision-usefulness of the results.

7 Felix Martin, Money: The Unauthorized Biography, p 260

»Impact valuation is on the way to become a key enabler to establish connectivity in double materiality reporting frameworks.

Dr. Klaus Hufschlag, SVP,
Sustainability Reporting & Controlling, DHL

»Measuring the impact of sustainable business practices is becoming increasingly important for companies due to the need to address climate change, meet stakeholder expectations and demands from the capital markets and comply with future regulation. That's why Deloitte is strongly supporting the partnership of the VBA and the IFVI in developing one common impact accounting methodology to ensure that data requirements are aligned with upcoming reporting standards

Volker Krug, CEO, Deloitte Deutschland

What are the main results of the 3rd piloting round?

Fotos: Pexels / Tobias Bjoerkli

3 — Main results of the third pilot

In the **third piloting** round, VBA member companies from 12 industries piloted the applicability of VBA's methodology for measuring their environmental, human and social, as well as economic value to society and tested application of the methodology for corporate decision making. An additional focus this year was on data alignment with upcoming reporting standards. With the help of VBA and peer-to-peer learning, both experienced companies and companies piloting for the first time successfully assessed their value to society due to corporate activities during the previous reporting period.

The **scope** piloted included the 12 indicators of the VBA methodology v0.2 covering environmental, human and social, as well as economic impacts on society due to corporate activities along the value chain.

According to VBA methodology, corporate activities can affect society negatively via environmental impacts such as GHG emissions, air and water pollution, as well as social impacts due to occupational health and safety incidents, and human rights issues. Positive corporate impacts are generated from training of employees and economic activity. Living wages may be positive or negative, depending on whether wages are paid above or below the country-specific living wage. To transparently show both positive and negative impacts, and the different stakeholders affected, each impact is displayed separately.

Most companies considered their own operations and the upstream value chain. Some companies have also started assessing their downstream impacts, which is still challenging due to large product portfolios and lower data availability. One exception is GHG emissions – here, scope 3 emissions are more readily available in most companies and therefore more frequently assessed.

The results showed that impacts depend on the location of a corporate in the value chain, and often occur mostly in the upstream value chain relative to those from own operations. First insights from GHG emissions additionally indicate the importance of considering and eventually managing downstream impacts, but further research is needed to overcome current **data availability challenges**.

Along the entire value chain, **monetary valuation** can be a powerful way to increase the transparency of environmental, social, and economic impacts on society and a useful approach to effectively managing them. Indeed, by applying location-specific value factors, corporates can contextualize the effect of their activities: for example, the same amount of water consumption has a different impact in different countries or regions, and this different impact cannot be captured using physical units (m^3) only.

Even though upstream impacts are largely based on macroeconomic approaches such as averages of the respective sector, monetized upstream impact can provide insights in collaborating with business partners. Upstream impact assessments are used to identify hotspots in the value chain and take appropriate actions in response, e.g., setting up due diligence processes with suppliers or investing in educational programs in countries with highlighted negative risk.

Data availability and data accuracy to assess corporate impacts typically depends on the value chain level, the relevance level of the topic for internal strategy and compliance with existing reporting requirements.

For the upstream value chain, primary data is generally less available. While some companies have started requesting primary data from their direct suppliers, many choose to model their entire upstream impact based on input-output models or life cycle analyses. And using statistical data like this can, indeed, provide insightful and actionable information, such as identification of potential highly negative impacts within the supply chain, beyond direct suppliers.

For own operations, data is in general more readily available, e.g., from direct site measurement, invoices, HR reports, or interviews.

»We have piloted the methodology for the second time and can say that we have again had a steep learning curve in the company. Furthermore, piloting the VBA methodology prepares small and medium-sized enterprises like ours very well for the challenges of CSRD.

Dr. Clemens Jüttner, Chief Sustainability Officer (CSO), Sana Kliniken AG

»Our ambition is to fully understand the value we bring to society. The VBA is a unique alliance to harmonize and test business relevant approaches to measuring and valuing impact.

Paul Penepent, Head Group Financial Reporting and Accounting, Novartis

Some companies tested the data alignment between the draft ESRS[8] and draft IFRS S2[9] and the VBA methodology. This additional analysis confirmed that the data requirements are largely aligned, and some gaps were identified that will be considered in further methodology development. Moreover, piloting provided opportunity to practice a similar process of data collection as required for reporting, so that companies can comply with the regulations and gain additional, actionable insights from applying impact measurement and valuation with minimum effort.

Reporting standards, investors, and other stakeholders increasingly demand information on companies' impacts on society and their ability to adapt their business models to climate and societal changes. Taking the double materiality perspective as required in the CSRD, impact measurement and valuation results support the understanding of impact materiality and provide insights into potential emerging financial materiality due to corporate impacts on society, especially over medium and long-term horizons.

In line with the double materiality perspective, some member companies tested the feasibility and applicability of the VBA value to society methodology in the context of their corporate actions to achieve their sustainability strategy, including first assessments of financial impacts on their businesses. Most companies tested carbon reduction strategies and started by evaluating their value to society and value to business impacts for each action taken to achieve carbon reduction goals, such as sourcing renewable energy and raw materials or investing in new sustainable technologies.

Piloting showed that evaluating both value to society (inside-out) and value to business (outside-in) perspectives for each action taken was realizable with respective efforts but provided a helpful framework for informing internal business decisions. Taking a holistic perspective covering environmental, human, and social impacts has the potential to provide transparent information on implicit trade-offs, leading to more sustainable business decisions.

Overall, we are convinced that monetarily valued information increases the transparency of corporate impacts on society and provide actionable information to corporate decision makers, as well as to financial market actors. In the future, we aim to further align the methodology with reporting requirements, in close collaboration with the IFVI, to ensure successful practical implementation. Testing the methodology will remain an essential component of our work to ensure feasibility and usability of the results for practitioners.

8 https://www.efrag.org/Assets/Download?assetUrl=%2Fsites%2Fwebpublishing%2FSiteAssets%2F06%2520Draft%2520ESRS%25201%2520General%2520requirements%2520November%25202022.pdf

9 https://www.ifrs.org/content/dam/ifrs/project/climate-related-disclosures/issb-exposure-draft-2022-2-climate-related-disclosures.pdf

Indicator	Upstream	Own operations	Downstream
Environmental			
GHGs	- 3,762,348	- 1,486,265	- 1,992,092
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Economic			
Labor Compensation	18,180,308	11,097,000	11,985,071
Profit, Depreciation, Tax	18,863,790	14,856,490	10,891,837

[Figure 2] Example of piloting results of one company by indicator and value chain level. Please note that the impacts are not additive, and the display of the results is not yet harmonized. Living wages were not piloted along the entire value chain and are therefore not reported. All values in EUR 1,000.

How can impact accounting be applied to decision-making in companies?

Foto: Pexels / Tom Fisk

»The VBA offers a great opportunity to shape the future of Impact Valuation with other global companies across industries and leading academics. It brings us closer to changing the way we measure impact holistically and not just in financial terms.

Petra Gall, Director Sustainability & Impact Valuation, Roche

»Through the pilots so far, we have found that the VBA methodology can show the comprehensive corporate value of our company. When this methodology is established, VBA indicators can be used as Key Performance Indicators (KPIs) for our company, which will lead to activities to improve corporate value and it will help disclose the positive and negative impacts for all stakeholders.

Kouji Eguchi, Representative Corporate Executive Officer,
Senior Vice President, Chief Supply Chain Officer, Mitsubishi Chemical

4 — Cases

Monetary terms can help move the sustainability dialogue to the core of business decision making by providing tangible and easy-to-understand language for corporate decision makers. VBA member companies apply the methodology to business discussions and decision making regarding products, programs and operations in an effort to embed sustainability into their everyday business activities.

The following cases show: how the impact accounting approach can be used in the real economy, how monetized impact can directly connect sustainability to business terms such as cost, expenses, revenues and profits, and how the methodology can support companies in gaining a holistic view on the impact they create and the stakeholders affected.

Changing blockbuster medicine format

Measuring societal impact of CSR initiatives on training

Supporting business partners to reduce waste

Company A

Shifting sourcing options

»Partnering with the VBA and piloting the methodology for impact valuation has supported Bayer to further understand and support more robust decision making at a country level, beyond the usual commercial metrics. The additional dimension to make decisions by utilizing sustainability impacts on top of financial information has provided further insights to support our journey to Net Zero by 2050.

Andy Clarke, Sustainability Lead UK&I and Global Impact Valuation Lead, Bayer

»The evaluation of impact is an important way to help focus our efforts and resources in a systematic way, based on a transparent and balanced methodology. That is why we at ZF conceptually incorporated the second pilot into our formal materiality process to not only identify relevant topics for upcoming reporting obligations, but to inform and support strategic prioritization based on the methodology.

Jochen Berner, Head of Sustainability Strategy, ZF Group

Bayer

Changing blockbuster medicine format

BACKGROUND

With its vision of "Health for all, hunger for none", Bayer has been driving innovation in areas of ecological footprint, inclusive growth and business practices along the value chain. For product innovation, changing the format and per unit size of its UK blockbuster medicine[10] from 2mg to 8mg was analyzed in this pilot considering the potential impact on non-financial as well as financial values.

The direct consequences of changing the unit size of the medicine would be to reduce the frequency of patients' visits to hospitals, pharmacies, and other treatment centers. This was expected to create various environmental, societal, and economic impacts on different stakeholders.

KEY QUESTIONS

Bayer sought to take a more holistic view to designing the medicine in a more sustainable and also more profitable way by asking: "How much impact can be created by changing the unit size of the medicine?", "Which stakeholders could be affected by the change?" and "To what extent, can social and environmental impact affect discussion on the size of the product?"

RESULT

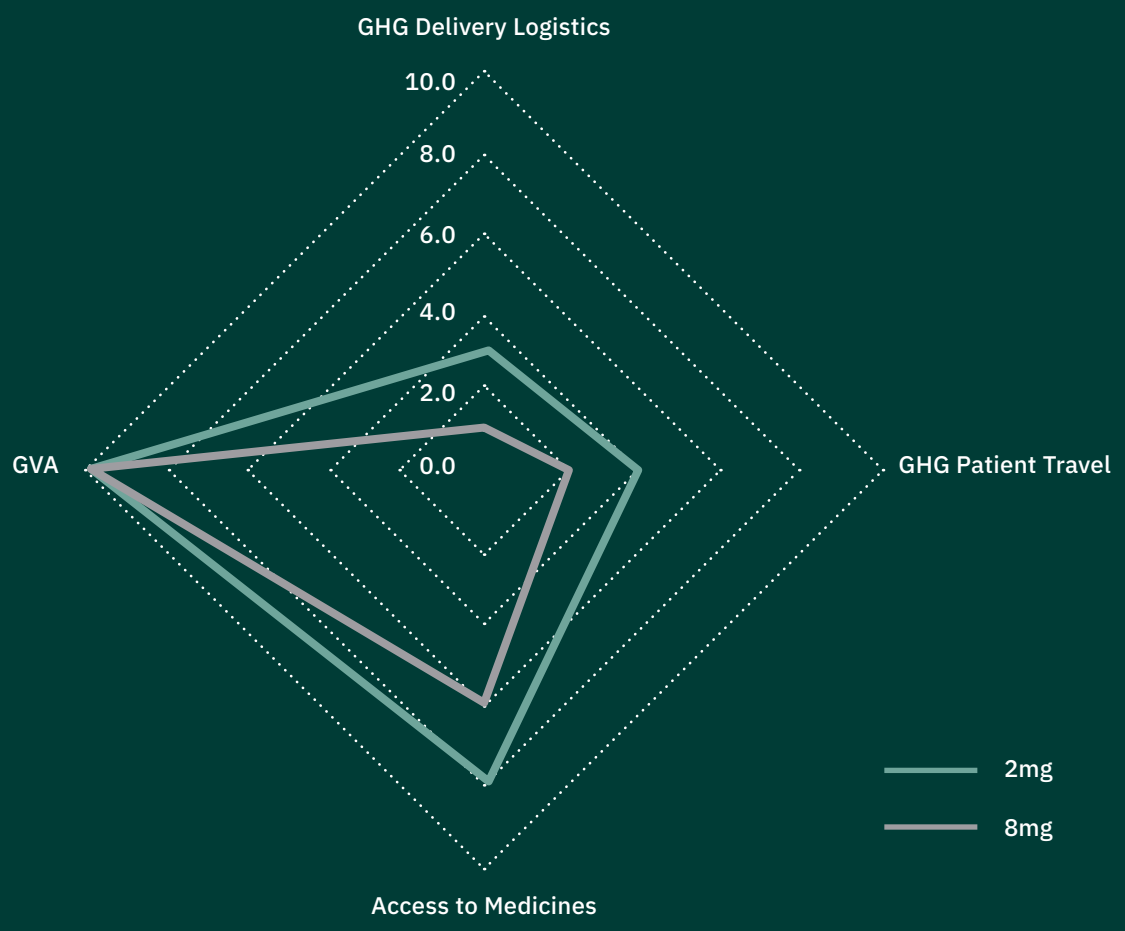
The environmental, social, and economic impacts of the 8mg vial were measured in comparison with the impact of a 2mg vial. The change of the vial size of the medicine can lower GHG emissions between 60-75% due to reduced travel (car, train & bus) by patients on the one hand and fewer medicine deliveries to customers on the other. The reduced frequency can also free up around 50% additional capacity of the NHS (National Health Service) to provide services to patients (treatment costs saved were calculated).

DECISIONS

Bayer decided to change the vial size to 8mg and continue to integrate sustainability into internal discussions on portfolio innovation.

In the pharmaceutical industry, the financial value (profit) is usually very high and non-financial values in environmental and social impact are much less easily ascertained. This can make it difficult to move away from a profit maximization perspective to a value optimization perspective in decision making processes. More discussion is needed to effectively embed sustainability aspects in business discussions. Monetizing the environmental and social impacts provides a much clearer way of integrating impacts and weighing profit against those impacts. For example, sustainability impact can be presented or considered in a more nuanced way, such as % or ratio-aligned view, rather than in direct comparison with profits.

10 An extremely popular medicine that generates annual sales of at least 1 billion USD for the company that sells it. Blockbuster medicines are used to treat common medical problems such as diabetes, high blood pressure, and cancer.



[Figure 3] Expected impact of format change of UK blockbuster medicine

The scale is widely varied among the results of different aspects – profits, GHG, etc. – so the result was converted into a 0-10 scale simply to show the effect size

SAP

Measuring societal impact of CSR initiatives on training

BACKGROUND

SAP's CSR (Corporate Social Responsibility) strategy is focused on two main areas: (1) supporting Social Entrepreneurship and (2) Education & Employment for youth-in-need. In both areas, the key element is training on skills, knowledge, attitudes, and values. To support the beneficiaries in developing their competencies, SAP employees participate in training activities, dedicating their skills, professional expertise, and business know-how on a volunteer basis. Direct inputs and outputs of these trainings, such as number of hours and number of employees engaged, had already been measured, but it was challenging to gauge the more long-term impact of the initiatives.

KEY QUESTIONS

After conducting several years of the CSR training initiative, SAP started to ask questions:

- → "What is the long-term social impact created through employee participation and upskilling via their engagement with social enterprises and youth-in-need?"
- → "What is the implication of this CSR initiative on SAP's service portfolio on trainings?"
- → "How do we communicate the business value of it to internal stakeholders?"

RESULT

To estimate the impact of the initiatives, SAP applied the VBA methodology's training indicator that measures the expected additional wages of the beneficiaries from increased capacity during the rest of their work life due to training. The societal value created through employee participation and upskilling via engagement with social enterprises and youth-in-need in 2022 was estimated at USD 30 million. Using country-specific value factors of the VBA methodology, SAP was able to analyze the detailed impacts in 8 countries where the training was provided.

IMPLICATION FOR BUSINESS

The monetized values of CSR initiative impacts have not yet led to direct change or specific decisions. But through a clear picture of the effectiveness of the initiative, the result provided insights for SAP's system of training – both for employees and customers.

The CSR initiative's training impact on social entrepreneurs and youth-in-need are essentially the same as the training impact on SAP employees. The provided training can contribute to improved capacity and upskilling, and in the end lead to increased economic position, such as higher purchasing power.

Recognizing the value of these CSR initiatives, collaboration among CSR, HR, product team, and SAP Learning (a department in charge of employee training and customer training) was started to integrate the volunteering portfolio into SAP's training program and develop solutions linked to social responsibility. CSR initiatives have gained more acceptance within the company and become more integrated into SAP's learning portfolio and business objectives.

Fotos: Pexels / Isaac Mitchell

SK

Supporting business partners to reduce waste

BACKGROUND

Asphalt concrete ('Ascon') has been used since the early twentieth century in maintaining roads, parking lots, and airports, and this composite material creates a huge amount of Ascon waste every year. In South Korea, though the government has pushed for policies to incentivize the use of recycled Ascon, very few companies were actually using it. The initial goal set by the government was to increase the share of recycled Ascon in total order volume to 40% by 2016. But, as of 2021, the share of recycled Ascon was still only around 21%.

SK Energy, an energy and petrochemical company of SK Group, developed and launched an asphalt product that can be used as a base material exclusively for recycled Ascon, but Ascon producers, which are mostly SMEs, were not using this asphalt product because they could not afford to install the required facilities (tank, dryer, pipelines) to produce recycled Ascon.

SK Energy set up a fund in 2022 to support its partner companies under the spirit of "Growing Together" or "Win-Win Relationships". The strategy to effectively deploy the fund has yet to be established.

KEY QUESTIONS

In 2022, the management of SK Energy looked for the most effective and timely way to deploy their fund of around USD 657,000 to support Ascon producers by establishing specific facilities for recycled Ascon production.

The management faced questions such as: "How much value can be created if SK Energy supported around 10 Ascon producers in its value chain to build facilities to produce recycled ascon?" and "What would be the expected social impact compared to the investment cost?"

RESULT

Using the waste indicator of the VBA methodology, a positive impact of about USD 13.8 million per year was estimated when supporting 10 partner companies to produce recycled Ascon.

The expected impact of SK's business partners producing recycled ascon was calculated by comparing the societal impact of producing new ascon with that of recycled ascon. SK Energy's contribution to the impact was estimated based on the percentage of its asphalt product in recycled ascon that business partners produce (in recycled ascon, asphalt, waste aggregate, and decrepit asphalt are contained in certain percentages).

- → Impact of selling 1 ton of SK's asphalt product to business partners to produce recycled Ascon: USD 1,424,000
    - → Reduction in raw materials for general Ascon: USD 209,000
    - → Reduction in Waste of general Ascon: USD 1,215,000
- → Impact of 1 business partner producing recycled ascon: USD 1,424,000 (estimate based on SK Energy's sales of asphalt product to 1 partner company per year)
- → Impact of 10 business partners producing recycled ascon: 14,240,000 USD

The impact of supporting 10 partner companies is expected to be 22 times higher than the investment costs (USD 657,000).

DECISIONS

Recognizing that the expected positive impact would be far higher than the costs, SK Energy decided to support 10 business partner companies to establish facilities in 2022 and plans to scale up the support to another 20 companies in 2023 and beyond.

With monetary impact valuation, SK Energy was able to directly compare the benefits and costs of supporting business partners. The impact valuation approach will be highly useful in SK Energy's fund-related strategy, including planning and evaluating key projects.

»Through the processes of measuring social values and effectively managing social value creation based on the VBA methodology, I expect companies can innovate business models.

Kyong-mok Cho, CEO and President, SK Energy

Company A (anonymized)

Shifting sourcing options

BACKGROUND

Sourcing sustainable materials is one of the key challenges that a company faces. At the same time, the company is also aiming to increase the resilience of their supply chains. Bringing both perspectives together, multiple scenarios were tested in which current procurements from China were shifted to several different countries.

Based on current procurement practices, three different scenarios for potential sourcing shifts were designed. For the same amount of the existing volume of import from one supplier country, several options to diversify sourcing countries were suggested.

- → **Baseline**: 100% sourced from China
- → **Scenario 1**: 75% sourced from China with 15% from India, and 10% from EU
- → **Scenario 2**: 50% sourced from China, 20% from 'Rest of Asia' (aggregation of Bangladesh, Myanmar, Vietnam and Cambodia), 15% from EU, 15% from Turkey
- → **Scenario 3**: 50% from China, 15% from India, 20% from 'Rest of Africa' (aggregation of Ethiopia, Morocco, Algeria and more), and 15% from EU

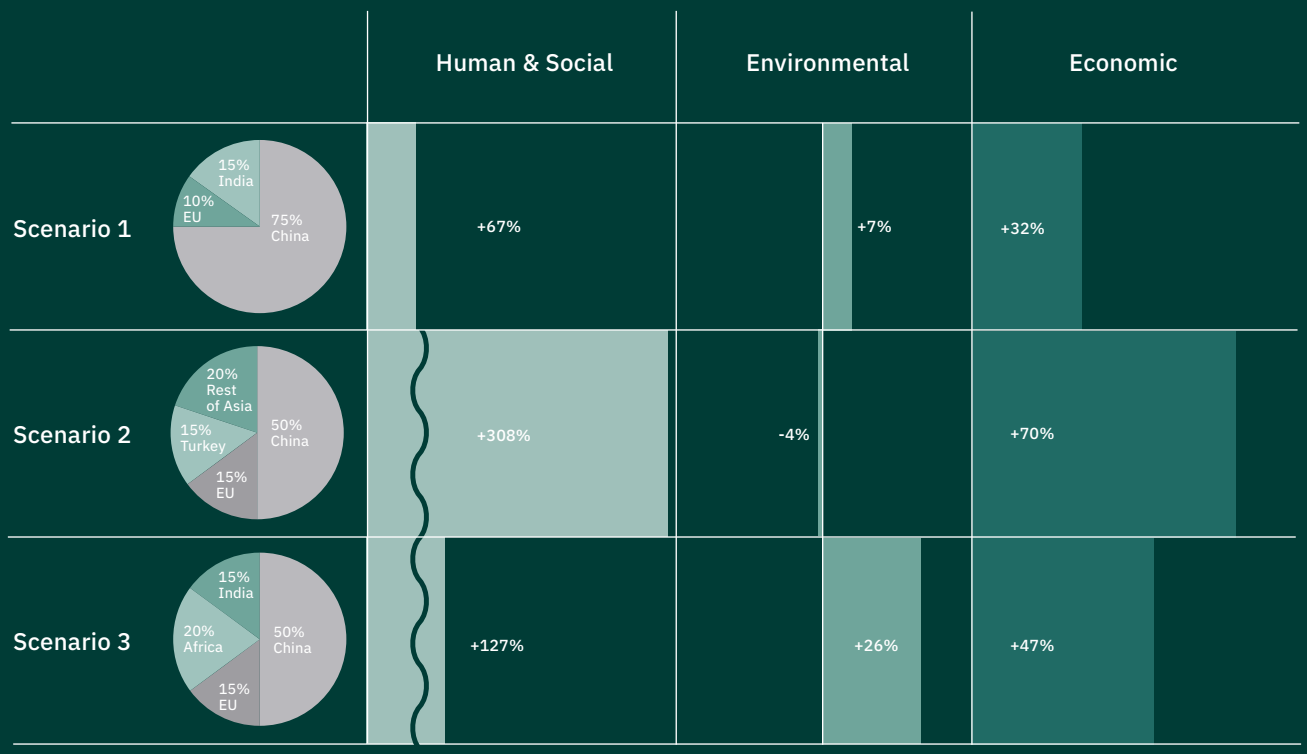
KEY QUESTIONS

The company needed to quantify the upstream impacts of potential sourcing shifts covering diverse options and diverse impact areas. Key questions it had in mind included, "How high are the expected economic, environmental, and social impacts of purchasing the same raw material for each scenario?" and "How do we interpret the expected impact and what would be our decision on sourcing choices and mix?" The estimated societal impacts can then be evaluated in addition to the financial costs faced by the company to implement the sourcing shift.

RESULT

Through the lens of impact valuation and secondary data based on input-output modeling, the company was able to see in one snapshot the expected impact of each scenario compared to the reference scenario. From an economic perspective, positive impacts increased in all scenarios, mainly due to higher tax and wage payments in alternative countries. Negative environmental impacts increased in scenarios 1 and 3, while a slight decrease was shown in scenario 2 due to lower GHGs and air pollution in Spain, where a less carbon intensive energy mix exists.

Looking at potential human and social risks, negative impacts drastically increased in all scenarios. A remarkably large impact of the living wage indicator (whether or not sufficient wages are paid along the supply chain) was observed. For example, not providing enough wages above living wages would be a risk in 'Rest of Asia' as compared to China in scenario 2. Child labor and forced labor posed significantly higher risks in Africa in scenario 3.



[Figure 4] Expected percentage change in the monetized impact of 3 Scenarios compared to basis scenario

Note: To make the results visible in one graph, the length of the bars is only a rough indication of the real impact

DECISIONS

With monetary impact valuation, the company was able to see the expected impacts of different indicators in one picture and intuitively compare the options with robust evidence.

Scenario 2 (shift to 'Rest of Asia', Turkey and Spain) would lead to an improvement in the overall sustainability impact. It is expected that negative environmental impacts would decrease and positive economic impacts would increase compared to the other scenarios.

Negative human and social impacts would increase on quite a large scale, but this effect should be interpreted carefully with further research on the reasons for the increase. In particular, the strong impact of living wages on our scenario analysis using the VBA methodology should be assessed further.

This business case enriches the perspectives that the company has on decisions regarding sourcing shifts and can inform strategic decisions on supplier countries in the future.

What are we planning next?

Fotos: Pexels / Anton Klyuchnikov

»Establishing comparability is necessary to enable top management to discuss and take the right actions. To establish this comparability monetization of ESG impacts is crucial. The VBA´s methodology enables it´s users to perform impact valuation on a monetized basis, delivering the foundation for data-driven decision-making.

Peter Schmidt, Vice President Corporate Accounting & Reporting, KIRCHHOFF group

»Being an integral part of the VBA, our mission is more than just metrics—it's about enabling businesses to accurately quantify and optimize their impact. As a community of solvers, we passionately champion the ongoing evolution and piloting of the VBA methodology, ensuring that our collective efforts shape the future of value-driven business practices.

Robert Prengel, Director of Sustainability Services, PwC Germany

5 — Conclusions and Outlook

Piloting and testing the VBA methodology is an essential component of the methodology development journey to ensure feasibility and usability. By piloting jointly with other peer companies, sharing experiences, and supporting each other, VBA member companies once again showed that the methodology is practically applicable. By applying the methodology to specific decisions, the piloting furthermore confirmed that it provides decision-useful and actionable information for companies' transition to a more sustainable business model.

As we continue piloting every year, we observe an increasing readiness among our members when it comes to practically applying the methodology – from establishing better internal systems to manage data and gaining more buy-in from internal stakeholders, to actually using impact accounting in diverse decision-making cases. Moreover, piloting feedback indicates that finance departments have become the most involved departments in this round of piloting, showing that sustainability has moved to the core part of business discussion by VBA members.

Especially for external communication, the right format of presenting the results needs to be standardized. This is one of the reasons why most member companies only use piloting results for internal communication. The VBA will address the issue of how to promote public presentation of the piloting results by more companies, so that external stakeholders including investors and local communities can be involved in our quest to gain greater transparency about corporate impacts.

Continued piloting has also brought to light more practical questions and comments from members about the methodology – from detailed comments on data requirements and suggestions for calculation logics, to practical questions on the concept, principles, and architecture of the methodology itself. Limitations and suggested improvements have been raised in areas like upstream impact and transparency in value factors.

Feedback from VBA members from the 3rd piloting will inform the next stage of methodology development. Through our close partnership with IFVI, we will be jointly developing a cutting-edge solution to measure benefits and costs to society in monetary terms. After General Methodology 1 is published in late 2023, further indicators on key sustainability topics will be added and further industry approaches for downstream impact will be included.

To shape a methodology that provides meaningful, comparable, and actionable information on company's sustainability performance, testing the methodology by corporates from more diverse industries, sizes, and geographies will be essential. The VBA invites companies from around the world to join our journey towards a globally accepted and applicable impact accounting approach.

About

The **Value Balancing Alliance** (VBA) is a growing not-for-profit alliance with the common goal of developing a standardized methodology for impact accounting. The VBA was founded in 2019 and, as of 2023, represents 29 global companies, including Anglo American, BASF, Bayer, BMW, BNP Paribas, Bosch, CSS, Deutsche Bank, DHL, Dräger, Holcim, Kering, Kirchhoff, L'Oréal, Michelin, Mitsubishi Chemical, Novartis, Otto, Porsche/Volkswagen, Posco, Pure Storage, Roche, SABIC, Sana Kliniken, SAP, Schaeffler, Shinhan Financial Group, SK, and ZF. The alliance is supported by the four largest professional services networks – Deloitte, EY, KPMG, PwC.

To develop a standardized methodology, the VBA cooperates with partners such as WEF, WBCSD, Capitals Coalition, Oxford University, WifOR, GIST, and Value Accounting Network. The VBA also engages with organizations like IFRS, EU, EFRAG, GRI, OECD, national governments, Global Value Commission, and G7 ITF. Since December 2022, the VBA has established a close partnership with the International Foundation for Valuing Impacts (IFVI).

The **International Foundation for Valuing Impacts** (IFVI) was established to build and scale the practice of impact accounting to promote decision making based on risk, return, and impact. It envisions a just and sustainable economic system based on the true contribution of businesses to people and the planet. IFVI's work consists in developing methodologies and valuation estimates which are complementary to, and build upon, the work of the IMP, ISSB, and other regulatory bodies, as well as building stakeholder capacity to implement impact accounting and drive adoption at scale.

IFVI grew out of the Impact-Weighted Accounts Project (IWA) at Harvard Business School in order to scale and achieve the ambitious goals set out by the G7 Impact Task Force in its December 2021 report.

»At Michelin we have the strong belief that the way forward to a more sustainable economy requires monetization of generated externalities, both negative and positive, in order to be considered equally in financial business decision processes. The VBA methodology provides the necessary framework for the underlying monetization process. The yearly Piloting exercise is a fantastic experience-sharing and peer-learning platform for all involved subject matter experts and practitioners.

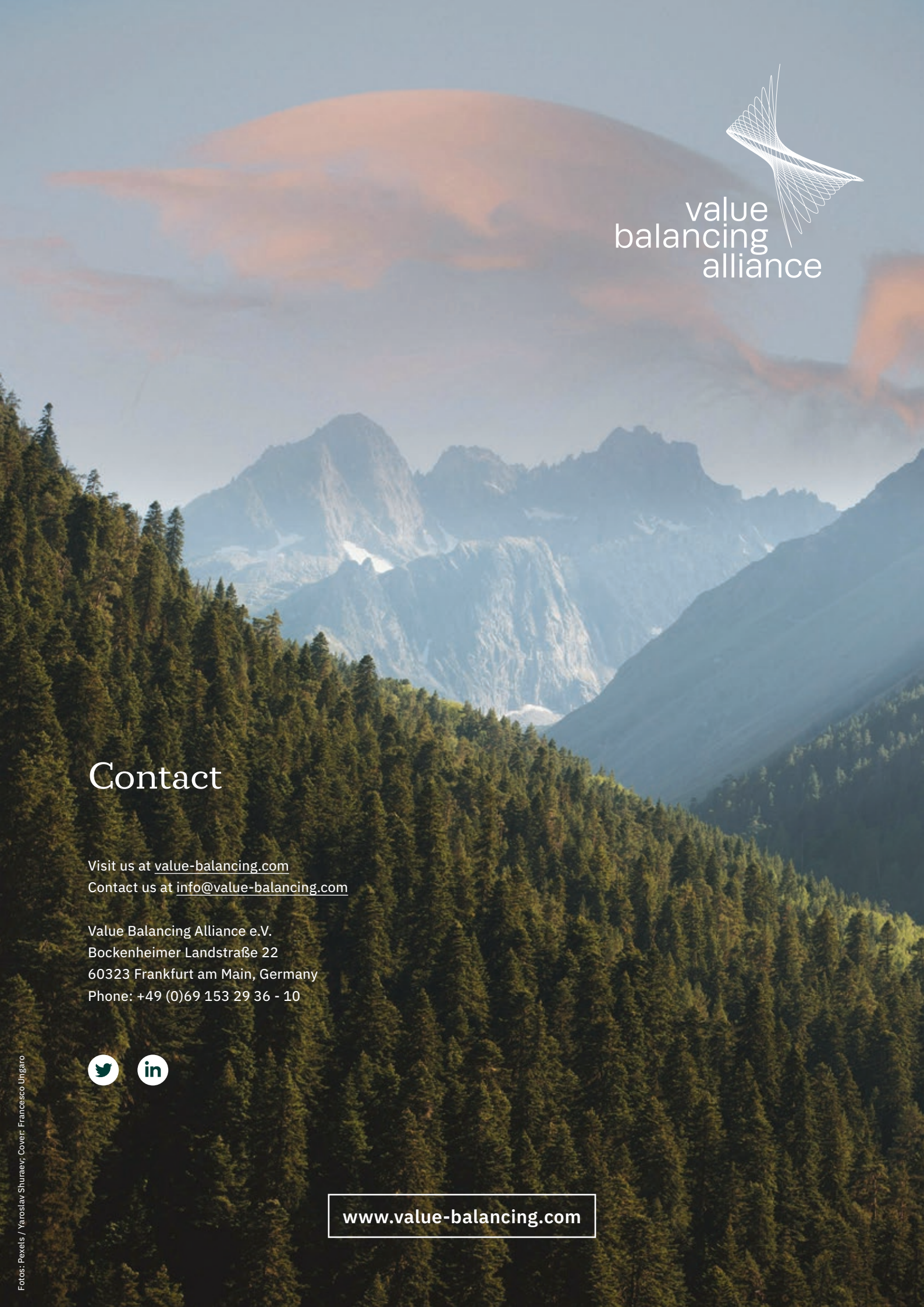
Stefan Kielich, Sustainable Finance Project Leader, Michelin

» As a global leader in the chemical industry, SABIC advocates for excellence in corporate reporting and the standardization of underpinning sustainability, management accounting and steering systems. Adding perspectives from emerging markets such as the Middle East region, where SABIC is headquartered, is important as it broadens the diversity of viewpoints shaping this global methodology.

Dr. Bob Maughon, Executive Vice President, Sustainability, Technology & Innovation and Chief Technology and Sustainability Officer, SABIC

»As a founding member of the VBA, Holcim is committed to creating value for people and the planet, and to measure our business performance beyond financials. The third pilot helped us to further understand the extent of our impacts and to track progress against our sustainability ambitions. We are excited to continue to support the development and piloting of the VBA methodology.

Antonio Carrillo, VP of Sustainability, Holcim



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