

Technology as an enabler for sustainability performance management



EY

Building a better
working world



SAP

Global
Partner

Contents

1

What is Sustainability Performance Management?

2

What is needed? A view from the 'triple bottom line'

3

What is needed from the technology perspective?

4

From theory to practice – environmental taxes

5

A connected view

Introduction

Sustainability strategy and reporting are hot topics for internal and external stakeholders. Taken together, sustainability strategy and associated reporting have a very tangible impact on an organization's ability to access finance, attract talent and grow market share.

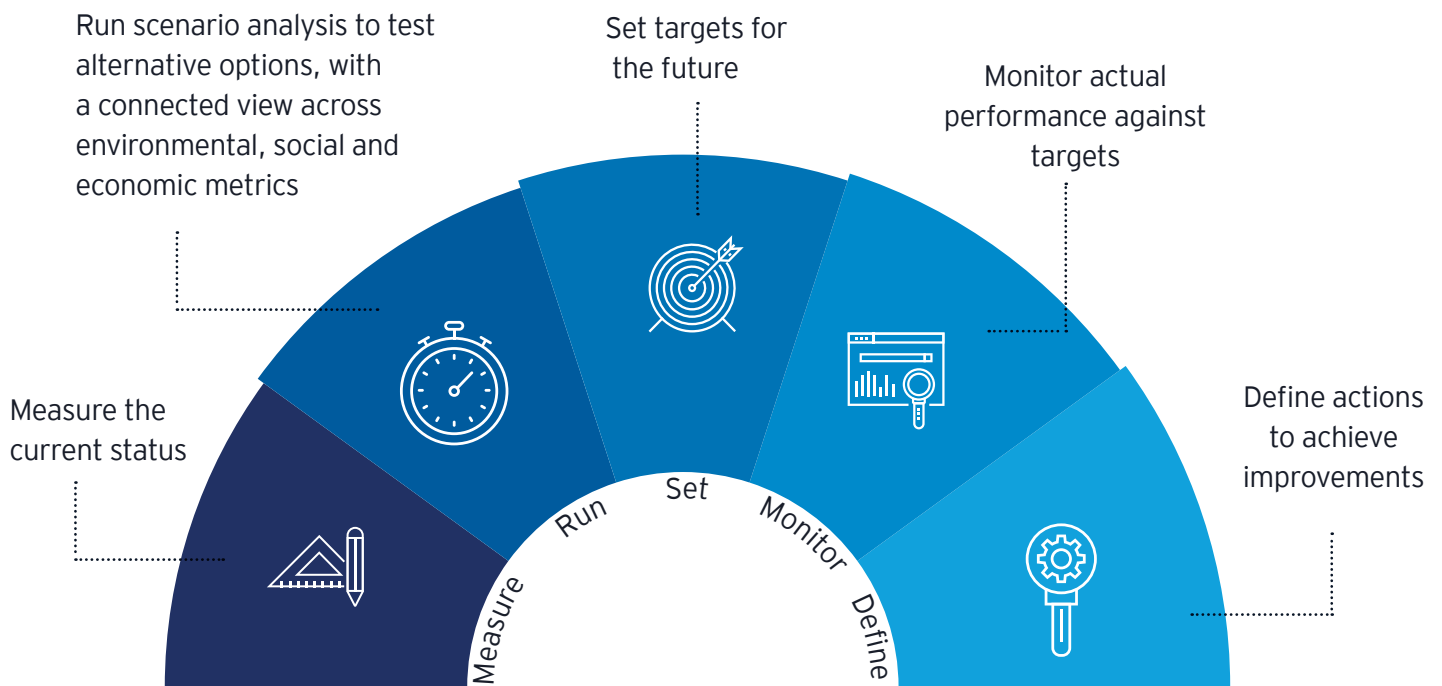
The subject of sustainability is incredibly broad and the metrics by which organizations manage and report against differ by sector, country and strategy. However, most organizations have made future commitments regarding their sustainability metrics and want to demonstrate improvement over time. In this sense, there is a strong need for a performance management capability.

1

What is Sustainability Performance Management?

For years, we have looked at finance and operational performance management, which enables organizations to better manage performance against forecasts and targets. At the heart of performance management systems is understanding performance drivers and levers – what do we need to do differently in order to improve over time?

If we consider sustainability metrics and the need to identify what is driving these metrics, the performance management capability is very familiar. It is essential to:



Process orchestration and governance

A lot is written on 'why' long-term value and sustainability are important. This paper focuses on the role of technology to provide a performance management capability, delivering actionable insights that can be used to improve performance. Performance management solutions provide advanced modeling and simulation capabilities helping organizations to chart a path forward.

The SAP Sustainability Control Tower solution is a central key figure ledger of reliable sustainability-related data. It enables organizations to set targets, monitor progress, and gain actionable insights with automated and updated performance reports, by business unit and location. It allows to source and integrate data from SAP and non-SAP applications into a central sustainability data warehouse and harmonize, allocate, and calculate granular

sustainability figures along established structures from finance, HR, real estate and operations. Based on this central trusted ledger for all sustainability business data, it allows you to analyze and report sustainable business data according to established ESG reporting frameworks.

SAP Sustainability Control Tower drives targeted action by providing business units a dedicated view on their sustainability performance.

A more accurate view to what the future state may look like and what is driving these outcomes serves two key purposes to:

- ▶ Help drive organizations take decisive action to drive positive change
- ▶ Instil trust in internal and external stakeholders on the future outlook of the organization

SAP Sustainability Control Tower

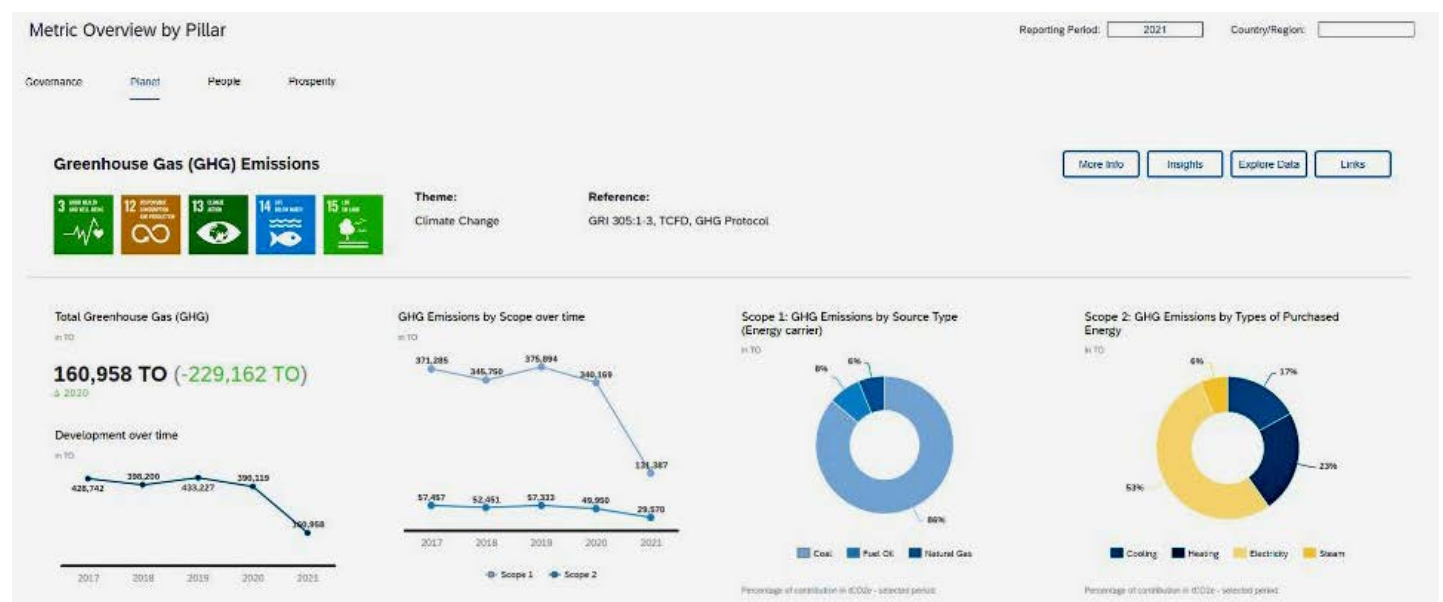


Figure 1: Example Metric Overview by Pillar as seen in SAP Sustainability Control Tower

2

What is needed? A view from the 'triple bottom line'

Organizations should model the 'triple bottom line' – connecting financial, social and environmental information – to better understand interdependencies and inform decisions.

As an example, as an organization, are you able to quantify the social benefits of alternative investment decisions in addition to the environmental and financial benefits and costs?

What is the 'triple bottom line'?

According to a Harvard Business School definition¹, the triple bottom line is a concept that posits firms should commit to measuring their social and environmental impact – in addition to their financial performance – rather than solely focusing on generating profit, or the 'standard bottom line'. It can be broken down into three "Ps": **profit, people and the planet.**

The lack of a connected view restricts the ability to create sustainable and long-term value. There are multiple use cases to consider:

- ▶ **Reporting and disclosures:** Report and disclose across multiple and continually evolving frameworks using a flexible modeling platform, supported by data consistency and a complete audit trail
- ▶ **Modeling emissions throughout the supply chain:** Provide transparency of emissions throughout the supply chain at a granular level down to material codes, which can support various analyses, such as product labeling and pricing decisions
- ▶ **Capital allocation and decision-making:** Evaluate the impact of investment options with a connected view across financial, environmental and social metrics to inform better decision-making
- ▶ **Environmental taxes:** Quantify the impact of environmental taxes throughout the supply chain and understand the impact on profit margins, taking into account the rising cost of carbon on one hand, and the financial incentives for green investments on the other

Performance management solutions offer capabilities to support these use cases plus more. It is possible to capture a range of financial and non-financial data to model the current state, forecast, calculate and allocate data to derive metrics. Last but not least, scenario analyses can be performed to deliver actionable insights.

¹ The Triple Bottom Line: What It Is & Why It's Important (hbs.edu)

3

What is needed from the technology perspective?



To meet these requirements, SAP Sustainability Control Tower is used, bringing together the capabilities of SAP Data Warehouse Cloud, SAP Profitability and Performance Management Cloud and SAP Analytics Cloud, all of which run on SAP Business Technology Platform (SAP BTP).

SAP Business Technology Platform helps accelerate innovation to unlock your business potential. SAP BTP brings together application development, data and analytics, integration and AI capabilities into one unified cloud environment optimized for SAP applications. SAP BTP enables you to create personalized experiences that instantly work with SAP applications, build faster with business context to meet changes with agility, and run with confidence on a trusted, enterprise-grade platform.

SAP Analytics Cloud

solution combines business intelligence, augmented and predictive analytics, and planning capabilities into one cloud environment. As the analytics layer of SAP Business Technology Platform, it supports advanced analytics enterprise-wide.

SAP Data Warehouse Cloud

solution unifies data and analytics in a multi-cloud solution that includes data integration, database, data warehouse, and analytics capabilities for a data-driven enterprise. This data warehouse-as-a-service solution empowers you to better understand your business data and make confident decisions based on real-time information.

SAP Profitability and Performance Management Cloud

solutions offered advanced modeling, allocation and calculation capabilities that empower your business users to make strategic decisions. Insights help to improve the performance of your business, help to increase profitability while realizing wider sustainability goals.

The six common technology requirements for constructing a sustainability performance management solution are explored in more detail on the next pages.



Figure 2: Overview of key technology requirements, capabilities and applicability for sustainability use cases

Activity	Key capabilities	Applicability for sustainability use cases
Capture	Ability to gather data from internal, external, SAP and non-SAP sources	<ul style="list-style-type: none"> ▶ For sustainability use cases, data typically sits in different systems, with different master data and at different levels of granularity, e.g., financial data, production data, operational data and lifecycle assessment databases ▶ Data requires gathering and standardizing into a common model
Calculate, map and allocate	Ability to flexibly model the data including complex calculations, data mapping and allocations	<ul style="list-style-type: none"> ▶ Model underlying data into the necessary state, then run calculations ▶ Create predictive models by combining actual data on a real-time basis and forecast data ▶ Facilitate complex calculations to enable accurate allocations of costs based on identified drivers
Model	Ability to model multiple scenarios across the data, enabling users to plan, assess alternative options and set targets	<ul style="list-style-type: none"> ▶ Provide a predictive view of outcomes by simulating different combinations e.g., carbon emissions and carbon taxes ▶ Enable better understanding of the knock-on effect on the profitability and customer sentiment for improved decision-making
Act	Ability to flexibly define reports and perform ad-hoc analysis for actionable insights and potential corrective actions	<ul style="list-style-type: none"> ▶ Provide full traceability for the data from source to final KPI, without losing granularity, through various reporting views ▶ Process large amounts of data at speed, e.g., analyzing emissions throughout the supply chain and down to material codes ▶ Navigate information intuitively with consumer grade analytics and interactive dashboards
Audit	Ability to access a full audit trail, providing transparency of the model and data used to arrive at outcomes and KPIs	<ul style="list-style-type: none"> ▶ Identify clearly data sources, transformations, allocations and calculations applied used to derive the KPIs with a full audit trail ▶ Provide necessary documentation to support level of governance required for sustainability reporting
Process orchestration and governance	Connecting all capabilities listed above, the workflow and process control enable effective monitoring of the data and activities and call out required actions	<ul style="list-style-type: none"> ▶ Data needed for sustainability purposes comes from different sources with various owners – this requires cross co-operation between several functions, business units and people ▶ Well-orchestrated process through workflow and process control will ensure correct data with appropriate quality is used throughout ▶ Holistic view across the end-to-end process, supporting definition of targets data and enabling review, approval and reject processes for effective monitoring, which is a necessity to help ensure an effective process control

The resulting solution provides a flexible modeling platform serving multiple reporting and performance management use cases.

4

From theory to practice – environmental taxes

Environmental taxes aim to discourage behaviors that have a negative impact on the planet. On the flipside, funding, financing and incentives act to support positive environmental behaviours and support sustainable transformation. In this example, environmental taxes are looked at in a traditional manufacturing organization and how a richer set of data can support accessing finance incentives.

At each stage of its supply chain, environmental taxes will be incurred, either directly or indirectly. How energy is sourced for its manufacturing processes will already have an impact on how much taxes are paid, albeit indirectly.

There are over

4,000


environmental taxes across 45 of the world's largest jurisdictions²

Moving further across the supply chain, the level of emissions produced as a side effect of the production or water usage will further impact the amount of the environmental taxes and charges. Choice of suppliers might also result in higher environmental taxes in some jurisdictions. For example, if the raw materials purchased are made from non-recyclable plastics or if they are sourced from distant countries resulting in a higher carbon footprint.

Last, but not least, is the distribution. The mode of transport and how the goods are packaged (for example, in non-recycled plastic) will also impact the level of the environmental taxes.

Environmental taxes will therefore have an impact on the profitability of the organization. To better manage these costs, it is vital to understand where these costs are incurred: at which supply chain step and why are they incurred. This is where the technology can provide a helping hand, as it can help to monitor various charges and also model different scenarios to provide insights and better support strategic decision-making.

² EY Green Tax Tracker, April 2022, see link: https://www.ey.com/en_gl/tax-guides/keeping-pace-with-sustainability-incentives-carbon-regimes-and-environmental-taxes



Environmental taxes are only one side of the picture. Incentives offer an opportunity to fund sustainable innovation and business transformation. Securing funding and grants for such projects is a complex undertaking and requires a strong business case. Technology enables us to model the financial, social and environmental data needed to simulate alternative outcomes and provides valuable input into a business case for investment.

Figure 3: Example data model for a manufacturer, illustrating the impact of environmental taxes and costs on earnings before income and taxes (EBIT)

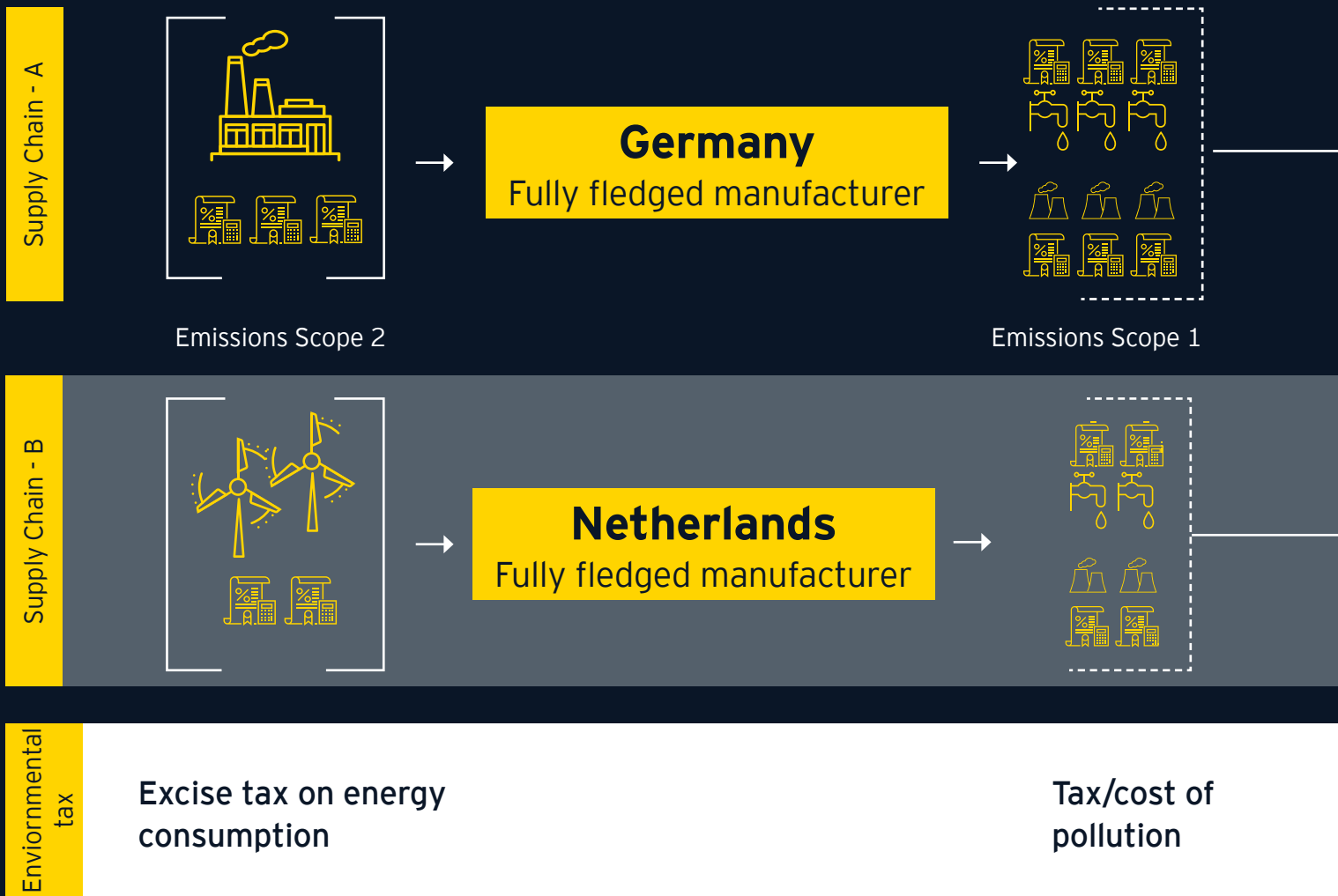
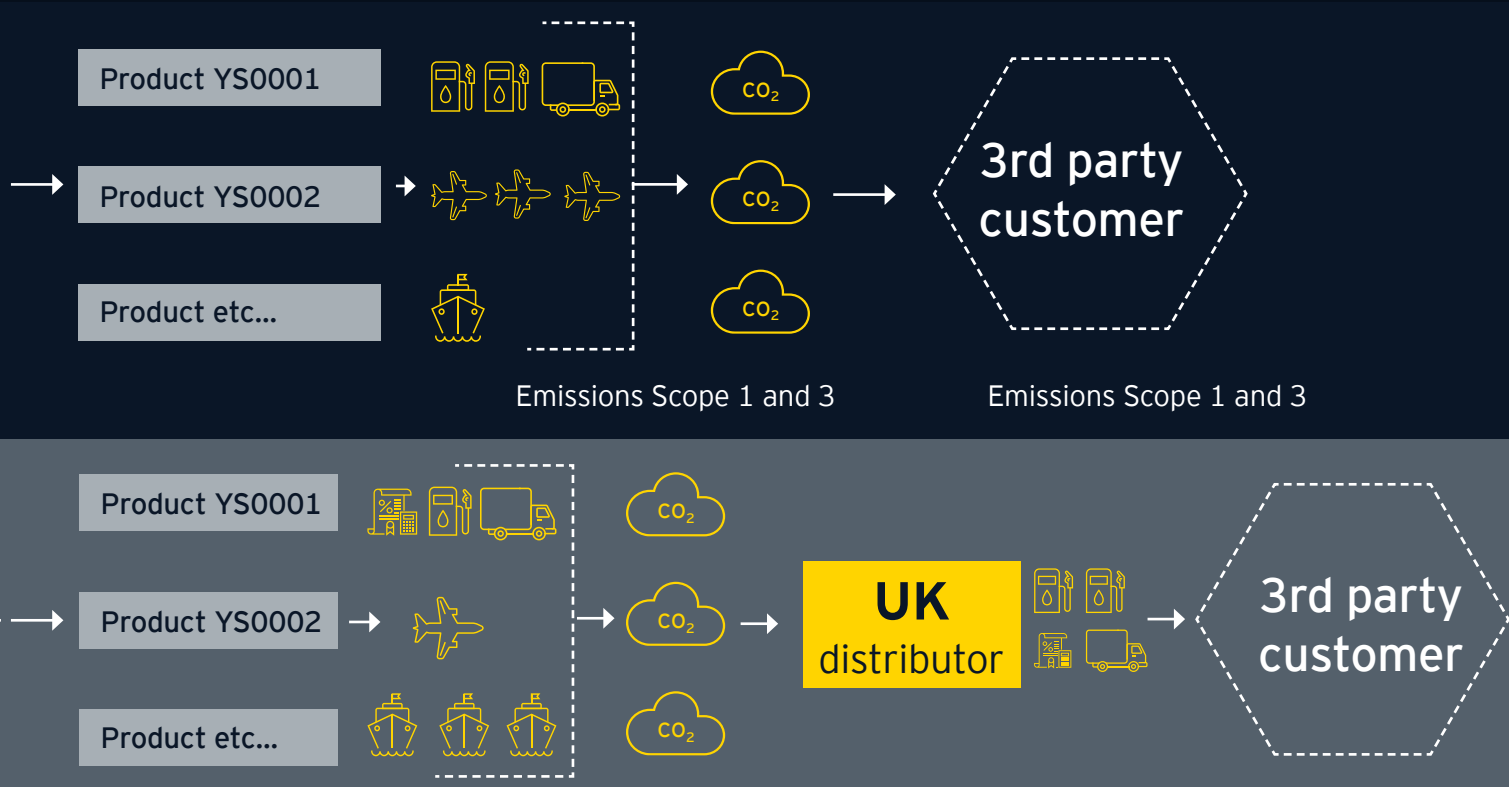


Figure 4: Example P&L for a manufacturer, illustrating the impact of environmental taxes and costs on earnings before income and taxes (EBIT)

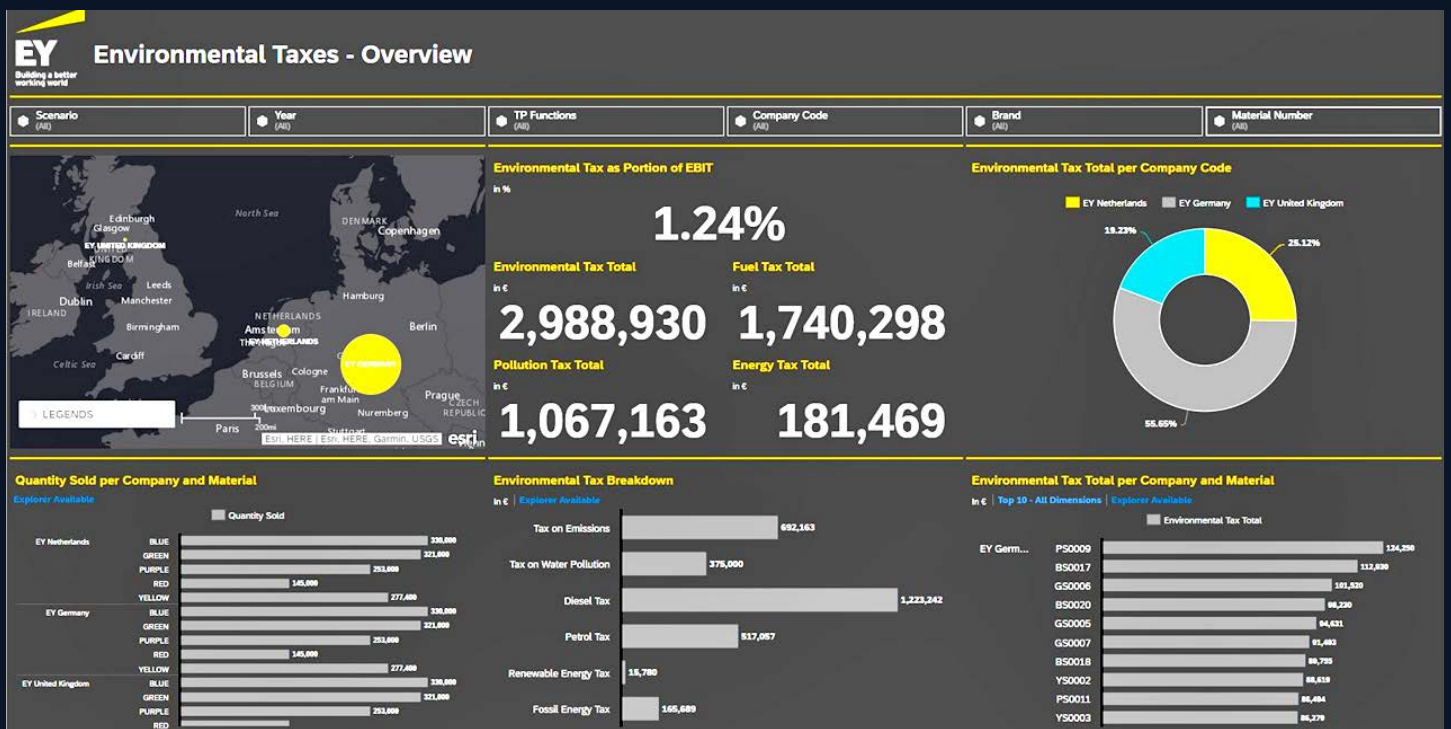
SAP		P&L Report											
ShowHide Layout: P&L Save Data Grid Analyze in Excel		EY Germany					EY Netherlands					EY United Kingdom	
Company Code	1200						1110						#
Plant Code	9999						1300						9999
Trading Partner Destination	BLUE	GREEN	PURPLE	RED	YELLOW	BLUE	GREEN	PURPLE	RED	YELLOW	BLUE		
P&L													
Gross sales to 3rd parties	-192.695.400	-169.278.390	-176.671.710	-124.360.830	-194.035.846	-192.695.400	-169.278.390	-176.671.710	-124.360.830	-194.035.846	-213.854.560		
Gross sales to IC parties	-192.695.400	-169.278.390	-176.671.710	-124.360.830	-194.035.846	-192.695.400	-169.278.390	-176.671.710	-124.360.830	-194.035.846	-213.854.560		
Net sales	-192.695.400	-169.278.390	-176.671.710	-124.360.830	-194.035.846	-192.695.400	-169.278.390	-176.671.710	-124.360.830	-194.035.846	-213.854.560		
Expenses from raw material EXT	159.802.260	150.370.790	150.910.030	113.580.950	156.859.088	159.802.260	149.393.240	150.910.030	113.580.950	156.859.088			
Fossil Energy Cost WO Tax	4.395.870	5.786.370	4.699.440	4.375.980	4.412.160								
Fossil Energy Tax	30.771	40.505	30.632	30.885									
Fossil Energy Total Cost	4.426.641	5.826.875	4.732.336	4.406.612	4.443.045								
Renewable Energy Cost WO Tax						4.395.870	5.786.370	4.699.440	4.375.980	4.412.160			
Renewable Energy Tax						2.931	3.858	3.133	2.917	2.941			
Renewable Energy Total Cost						4.398.801	5.790.228	4.702.573	4.378.897	4.415.101			
Total Energy Cost	4.426.641	5.826.875	4.732.336	4.406.612	4.443.045	4.398.801	5.790.228	4.702.573	4.378.897	4.415.101			
Gas Electricity Water	4.426.641	5.826.875	4.732.336	4.406.612	4.443.045	4.398.801	5.790.228	4.702.573	4.378.897	4.415.101			
Standard Cost (if produced)	164.228.901	156.197.665	155.642.366	117.987.562	161.302.133	164.201.061	155.183.468	155.612.503	117.959.847	161.274.189			
Expenses from finished goods IC											192.695.400		
Standard Cost (if procured)											192.695.400		
Costs of goods sold	164.228.901	156.197.665	155.642.366	117.987.562	161.302.133	164.201.061	155.183.468	155.612.503	117.959.847	161.274.189	192.695.400		
Gross profit	-28.466.499	-13.080.725	-21.029.344	-6.373.268	-32.733.713	-28.494.339	-14.094.922	-21.059.107	-6.400.983	-32.761.657	-21.159.160		
Petrol cost WO Tax						170.665	127.600	175.450	90.277	130.790			
Petrol Tax						127.009	94.960	130.570	67.184	97.334			
Petrol Total Cost						297.674	222.560	306.020	157.461	228.124			
Diesel cost WO Tax	214.000	160.000	220.000	113.200	164.000						202.500		
Diesel Tax	159.259	119.072	163.724	84.243	122.049						150.701		
Diesel Total Cost	373.259	279.072	383.724	197.443	286.049						353.201		
Other Transport cost	1.095.600	3.230.400	2.738.500	1,155.600	1,721.170	738.210	2,410.950	1,764.600	817.250	1,172.820	1,095.600		
Distribution Costs: Outbound Freight	1,468.859	3,509.472	3,123.074	1,353.043	2,007.219	1,035.894	2,633.510	2,070.620	974.711	1,400.944	1,448.801		
General & Administration Expenses	2,660.000	3,271.000	2,716.000	1,718.000	2,774.000	2,660.000	3,271.000	2,716.000	1,718.000	2,774.000	237.600		
Tax on Emissions	115.921	152.589	123.826	115.396	116.350	12.625	16.619	13.497	12.568	12.672			
Tax on Water Pollution	95.979	54.452	42.917	24.977	47.056	37.319	36.301	28.611	16.398	31.371			
Other expenses	171.899	207.041	166.843	139.993	163.406	49.944	52.920	42.108	28.966	44.042			
Operating Expenses	4,300.758	6,987.513	6,005.917	3,211.036	4,944.625	3,745.828	5,957.430	4,828.728	2,721.677	4,218.986	1,686.401		
EBIT	-24.165.741	-6,093.213	-15,023.427	-3,162.232	-27,789.088	-24,748.512	-8,137.493	-16,230.379	-3,679.306	-28,542.670	-19,472.760		
EBT	-24.165.741	-6,093.213	-15,023.427	-3,162.232	-27,789.088	-24,748.512	-8,137.493	-16,230.379	-3,679.306	-28,542.670	-19,472.760		
Net Profit / (Loss)	-24.165.741	-6,093.213	-15,023.427	-3,162.232	-27,789.088	-24,748.512	-8,137.493	-16,230.379	-3,679.306	-28,542.670	-19,472.760		
Energy usee (kWh)	4.884.300	6.429.300	5.221.600	4.862.200	4.902.400	4.884.300	6.429.300	5.221.600	4.862.200	4.902.400			



Excise tax on fuel consumption

Excise tax on fuel consumption

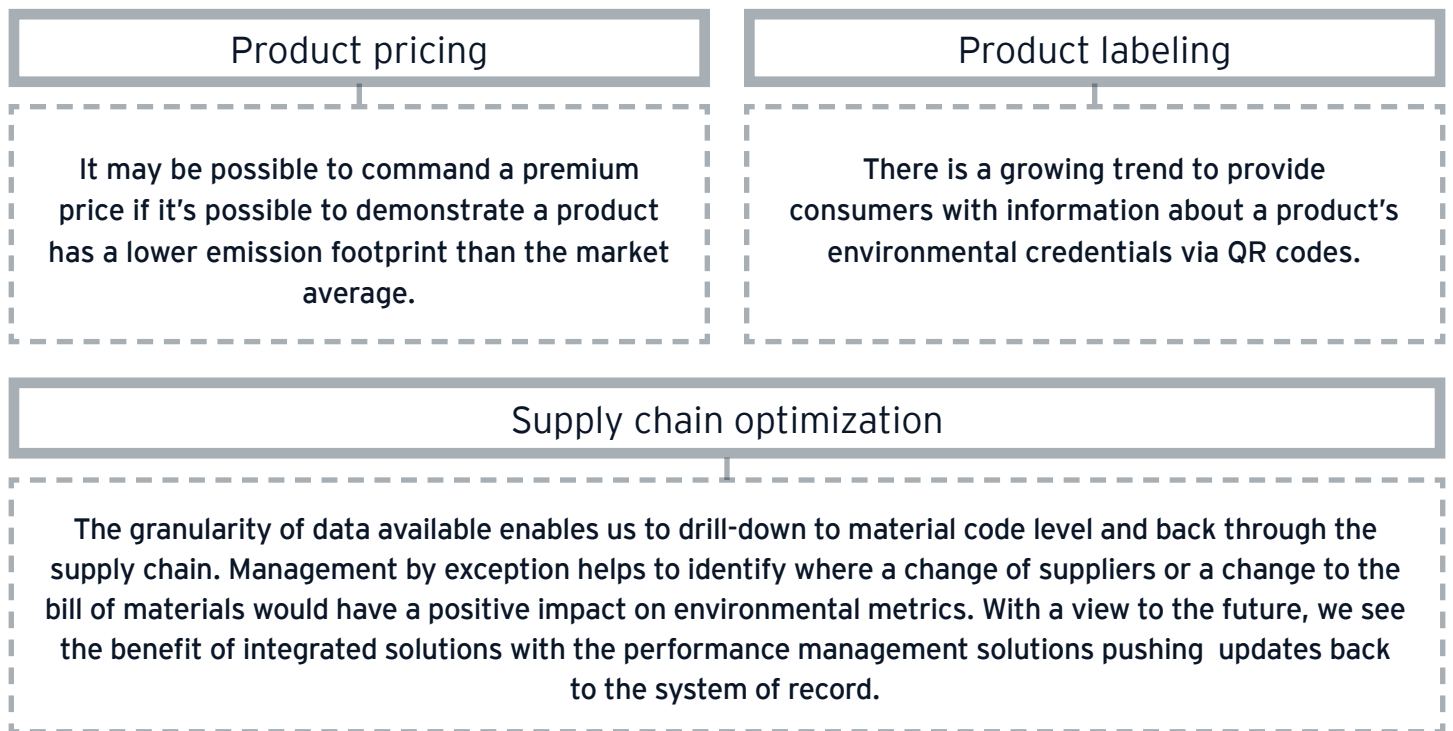
Figure 5: Sample overview enabling management by exception of various environmental taxes and costs



5

A connected view

The example use case of environmental taxes provides a valuable data set that can be used further, for example:



Your sustainability performance journey, supported by EY and SAP teams

EY teams have in-depth experience of designing, configuring and implementing SAP solutions for sustainability for multiple use cases across performance management, tax and finance. We leverage these experiences to deliver connected insights between financial, environmental and social metrics, providing organizations a performance management capability to better support their sustainability strategy and reporting needs.

Plan today for a better tomorrow

With increasing obligations for organizations to achieve their sustainability commitments and report on sustainability metrics, the role of technology to provide actionable insights is clear.

Together, the EY and SAP alliance provides trusted and strong brand collaboration with the right capabilities to help large corporations respond to the challenge. When business works sustainably, the world works better – for business, people and the planet.

Contact us to start your journey today.

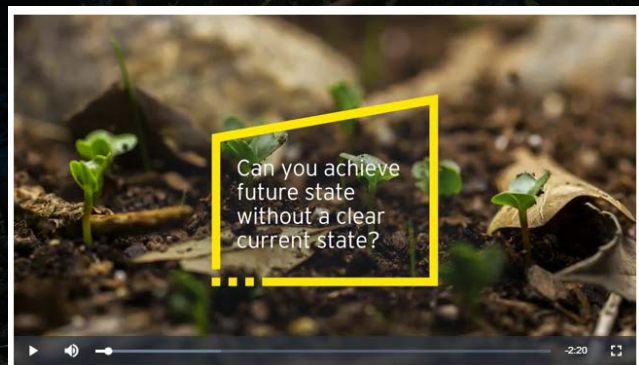
For more information

For details on products and services from SAP and EY, please visit the following websites:

[SAP website \(sap.com\)](https://www.sap.com)

[EY and SAP alliance \(ey.com\)](https://www.ey.com)

[Read the first EY-SAP whitepaper on how platform technologies can drive value in tax and finance functions \(sap.com\)](https://www.sap.com)



“Watch our short video to learn more about how EY and SAP teams can help you transform sustainability management and reporting”

Contacts



Sveinung Baumann-Larsen
Partner and EY EMEIA Platform, Solutions
and Intelligence Leader, Ernst & Young AS
sveinung.larsen@no.ey.com
+47 982 06 202 | [LinkedIn](#)



Michel Haesendonckx
Global Solution Owner
Financial Planning & Analysis, SAP
michel.haesendonckx@sap.com
+32 472 491 699 | [LinkedIn](#)



Jon Scott
Partner, EMEIA Platform, Solutions and
Intelligence, Ernst & Young LLP
jon.scott@uk.ey.com
+44 7909 876 056 | [LinkedIn](#)



Ilona Jarzyna
Senior Manager, EMEIA Platform,
Solutions and Intelligence, Ernst & Young LLP
ilona.jarzyna@uk.ey.com
+44 7341 079 102 | [LinkedIn](#)



Esteban Rastrollo
Director, EMEIA Platform, Solutions and
Intelligence, Ernst & Young Abogados, SLP
esteban.rastrollo.lerma@es.ey.com
+34 933 627 437 | [LinkedIn](#)



Irina Postelnicu
EY EMEIA SAP Sustainability
Go-To-Market Leader
irina.postelnicu@ch.ey.com
+41 58 286 4443 | [LinkedIn](#)

Acknowledgements

The authors would like to acknowledge the collaboration and contribution of colleagues, including Chris Grundy at SAP, and Charlene Glenister at EY for their valued thoughts and insights during the development of this paper.



EY | Building a better working world

EY exists to build a better working world, helping create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

About EY's Tax Technology and Transformation Services

EY's Tax Technology and Transformation (TTT) is a global practice that brings together transformation strategists and technology professionals dedicated to helping organizations redefine the tax function to meet the demands of the digital age: from rapid business model change and global transparency, to expanding digital tax administrations, escalating reporting requirements and cloud-based solutions. Our objective is to help each client transform the traditional tax function into a connected intelligent tax function, with an operating model that thinks about data differently – one that's integrated and adding value across the enterprise, embraces innovation, and is open to adopting advanced and emerging technologies to fuel continuous transformation.

© 2022 EYGM Limited.
All Rights Reserved.

EYG no. 005975-22Gbl

BMC Agency
GA 22177623

ED None



In line with EY's commitment to minimize its impact on the environment, this document has been printed on paper with a high recycled content.

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, legal or other professional advice. Please refer to your advisors for specific advice.