



# Trusted Sustainability Insights

*ESG Dashboards Powered by Microsoft Azure, Power Apps and Power BI*



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# Content

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1

Introduction

2

Demo

3

Pricing

# ESG reporting is often fragmented and performed manually

## Many organisations struggle with ...



Efficient monitoring of progress on sustainability commitments



Gaining data-driven insights on potential actions



Measuring impact of ESG performance



Consolidating data that is scattered throughout and beyond the organization



Realising trust in ESG data and reporting

**... that's why KPMG has developed a solution to accelerate sustainability reporting via the Microsoft suite.**

# ROLES

*To ensure sustainability targets are realized, different roles can be identified:*

I want to ensure we make **progress on company wide ESG strategy and ambitions** for topics that matter



Bart  
ESG Responsible

I want to know for my assigned ESG topics if we're on track and **how we could best improve results** to meet or even exceed expectations



Denise  
ESG Topic Responsible

Sadly enough not all data is easily automatically integrated in the dashboard. On a recurring basis **I provide manual data input for required and assigned ESG metrics**



David  
Manual Data Input

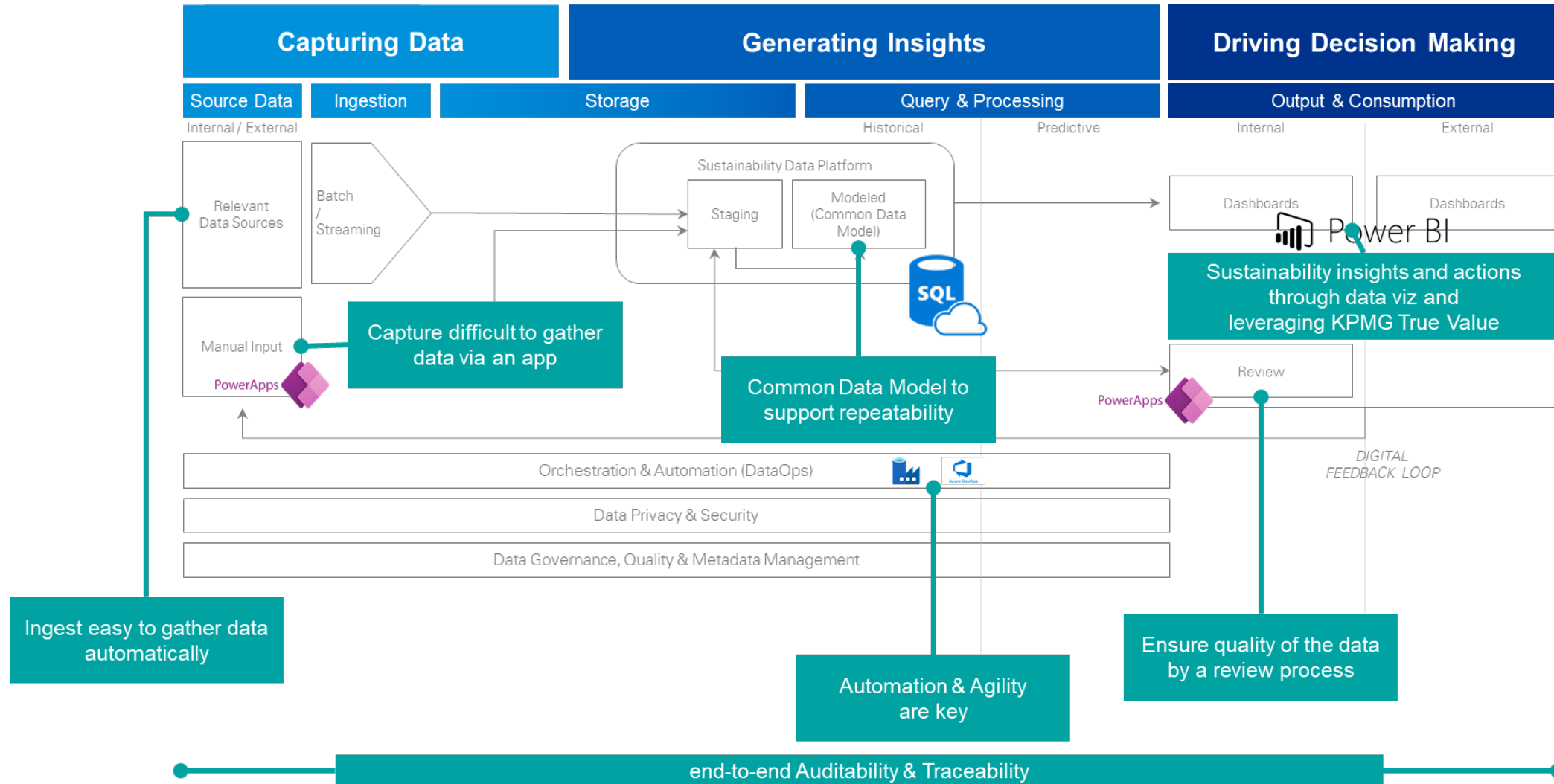
**To ensure data quality I review assigned manual input** supported by automated data quality checks. I also follow-up on timely data input.



Ann  
Data Input Reviewer

# ARCHITECTURE

The high-level overview of the architecture of Trusted Sustainability Insights illustrates the key components of the solution:





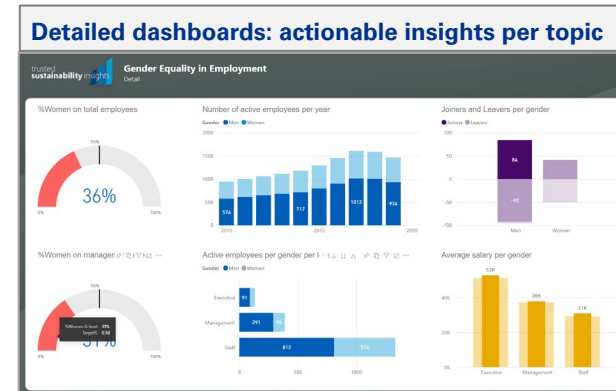
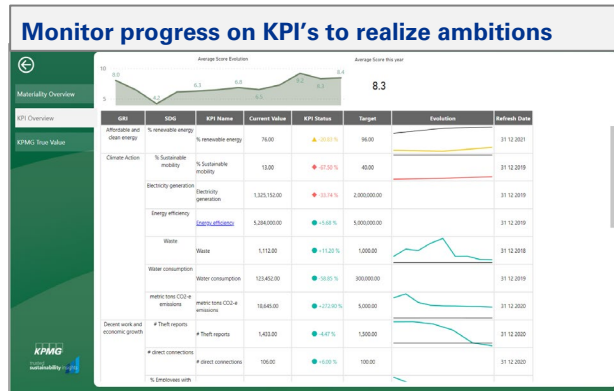
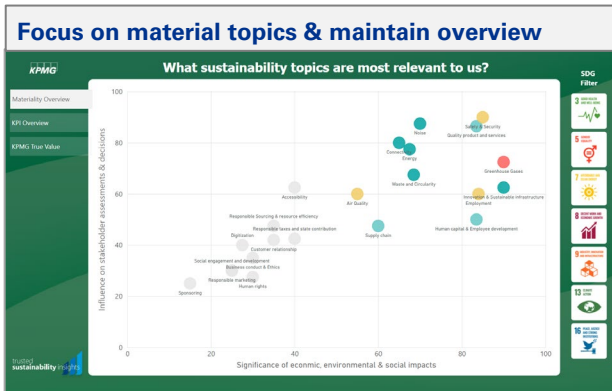
# Trusted Sustainability Insights

## Demo



# TRUSTED SUSTAINABILITY INSIGHTS - Overview of building blocks of the solution

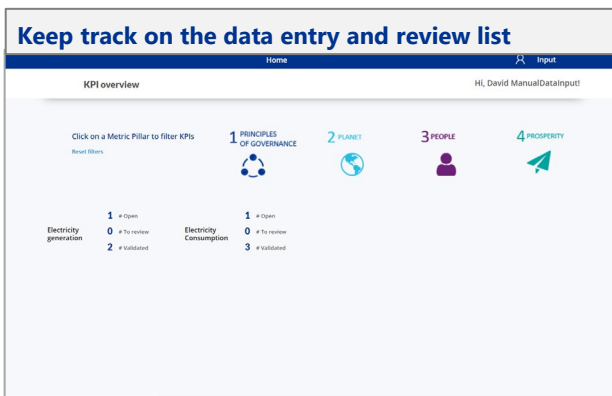
The key building blocks of Trusted Sustainability Insights are summarized below:



### Enhance transparency via data lineage view

Data lineage per KPI

KPI	Unit	Source Type	Source System	Last Update	Planned Next Update	
Air Quality	PM2.5	automatic	Air Quality Meter	2020-10-06	2021-10-06	
Connectivity	# direct connections	automatic	Power App	2020-10-06	2021-10-06	
Customer relationship	Money losses for unethical behavior	manual input	Power App	2022-01-01	2022-01-01	
Digitalization	Energy consumption	automatic	HR Database	2021-09-24	2022-09-24	
Employment	% Employees with minimal wage	%	automatic	HR Database	2020-10-06	2021-10-06
Employment	Percentage female employees	%	automatic	HR Database	2021-03-21	2021-03-21
Employment	Percentage female managers	%	automatic	HR Database	2020-10-06	2021-10-06
Energy	Electricity consumption	kWh	manual input	Power App	2022-01-01	2022-01-01
Energy	Electricity consumption	kWh/m²	manual input	Power App	2021-09-28	2022-09-28
Energy	Electricity consumption per m²	kWh/m²	automatic	Power App	2020-10-06	2021-10-06
Energy	Electricity generation	kW	manual input	Power App	2022-01-01	2022-01-01
Greenhouse Gases	% Sustainable mobility	%	automatic	Mobility Database	2020-10-06	2021-10-06
Greenhouse Gases	Financial assistance received by the government	million euros	manual input	Power App	2022-01-01	2022-01-01
Greenhouse Gases	metric tons CO2e emissions	kiloton	automatic	CO2 Emission Meter	2020-10-06	2021-10-06
Human capital & Employee development	Budget Spend on Training	euros	automatic	Budget Monitoring System	2020-10-06	2021-10-06
Human rights	Wastewater generated	million m³	manual input	Power App	2022-01-01	2022-01-01



### Input and review manual data to boost data quality

Electricity Consumption

Home | Reviewer

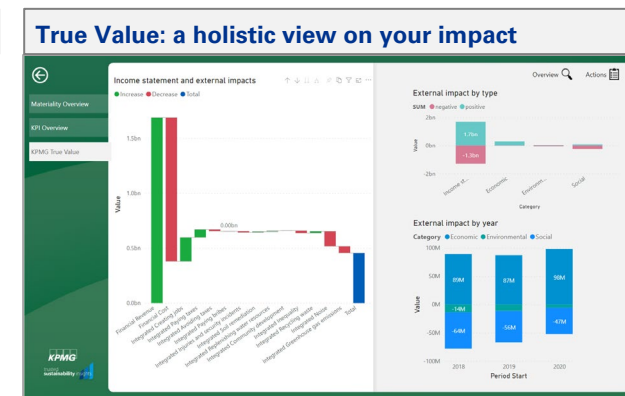
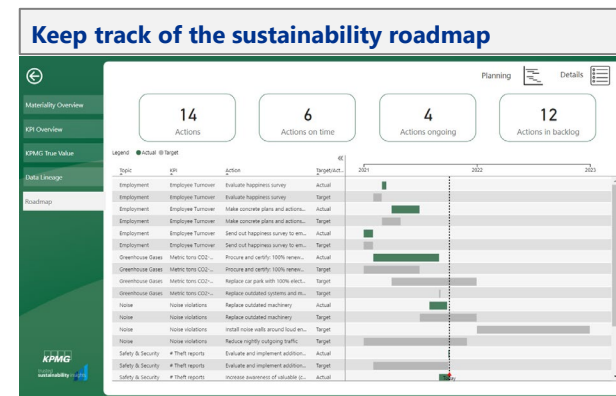
SELECTED PERIOD: Jan 2021 - Dec 2021 | TARGET VALUE: 2800 | PREVIOUS YEAR VALUE: 2957 | CURRENT STATUS: To review

Input Form: VALUE: 2756 kilowatts

Review Form: VALUE: 2756 kilowatts

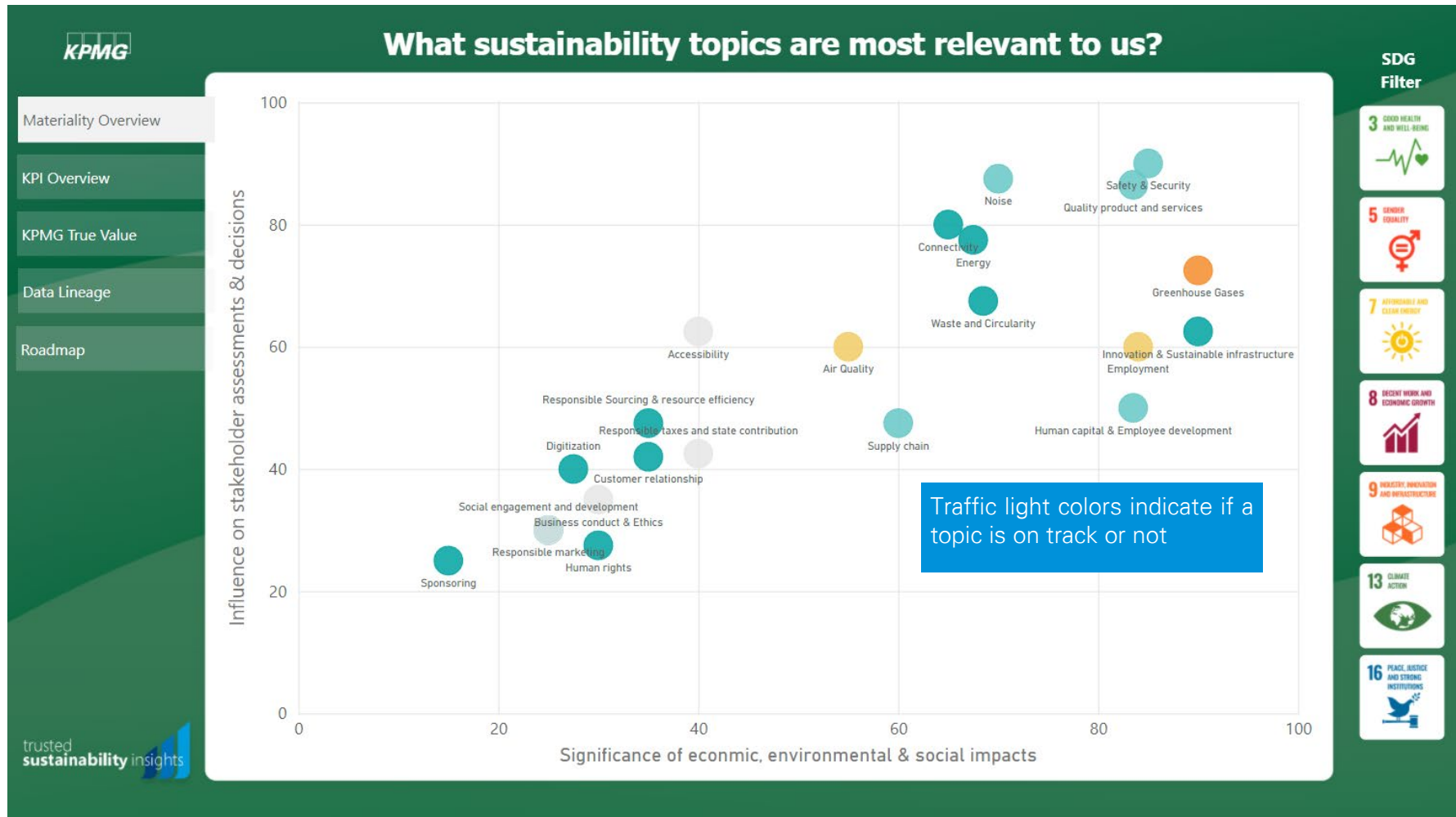
FEEDBACK: Provide the source details please.

SAVE REVIEW | SEND FEEDBACK | VALIDATE



# LANDING PAGE

The landing page gives an overview of performance for material topics (by visualizing actual vs target) and allows to focus efforts.

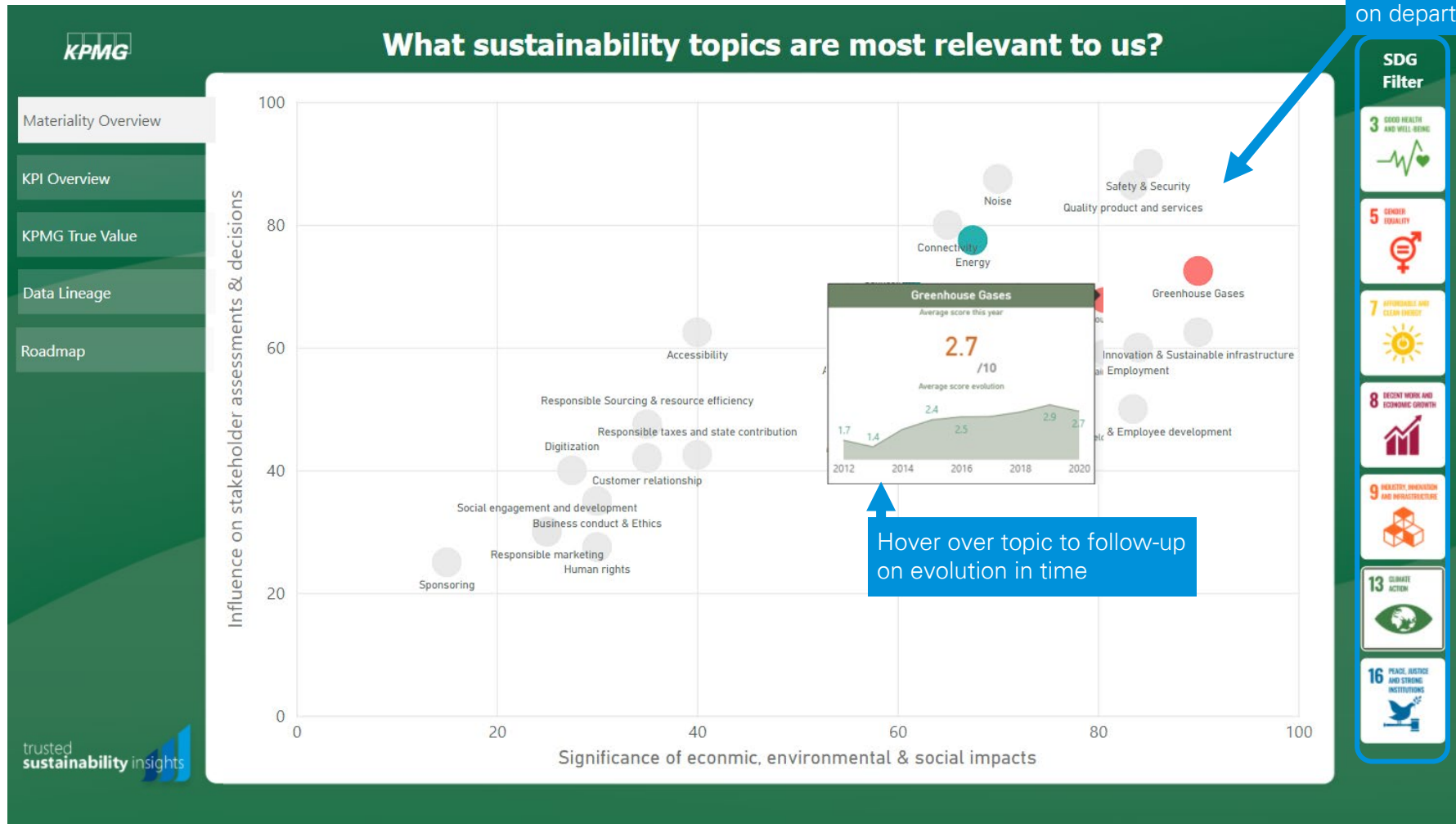




# LANDING PAGE

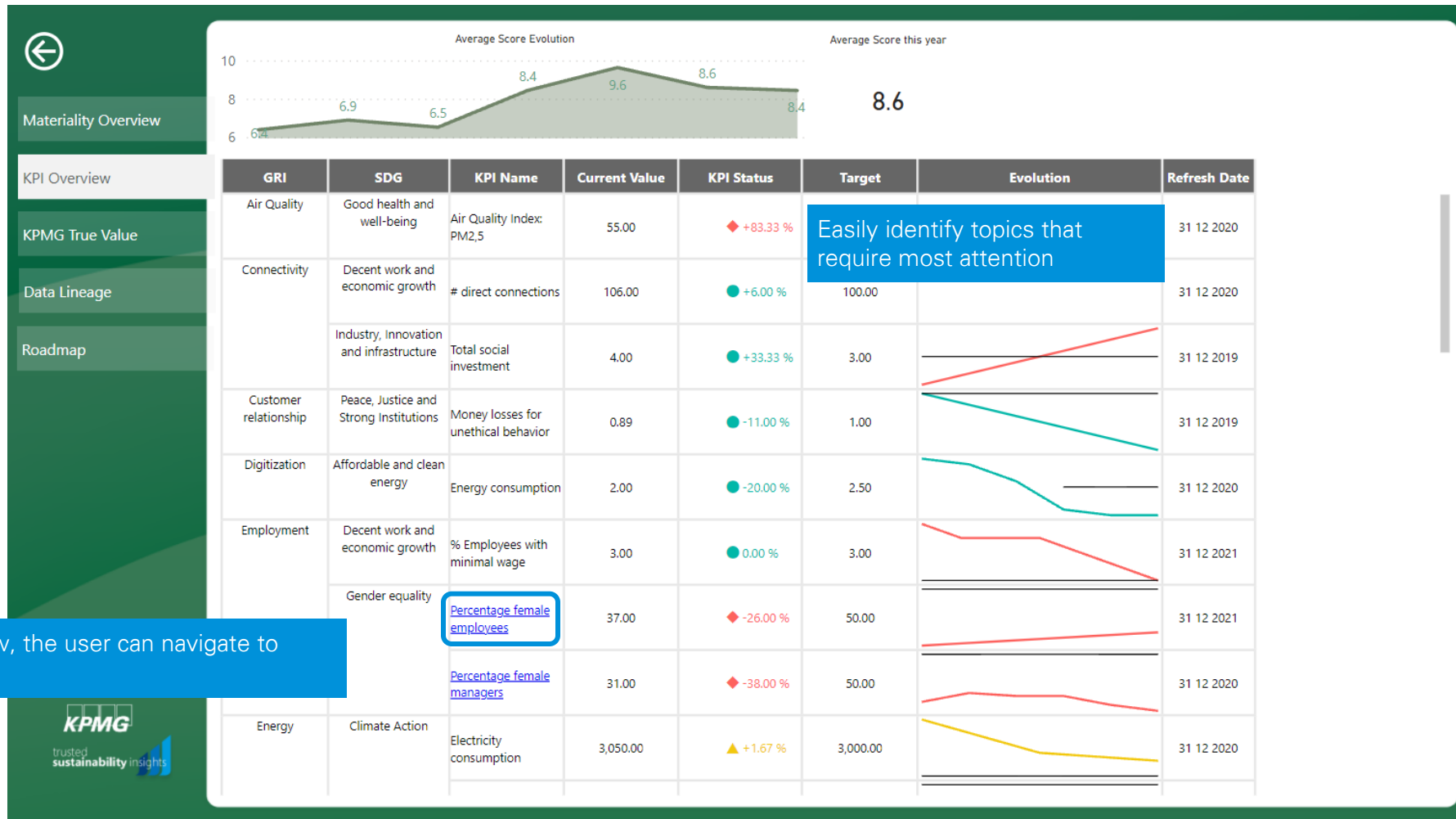
Filters (e.g. an SDG filter) allow to zoom in with a specific focus. Progress over time can be monitored via a transparent tooltip.

Filter the materiality matrix to evaluate progress on specific domains. (e.g. filter on SDG's or on department/owner)



# KPI OVERVIEW

The 'KPI overview' gives a clear view on the sustainability targets and current value.



Easily identify topics that require most attention

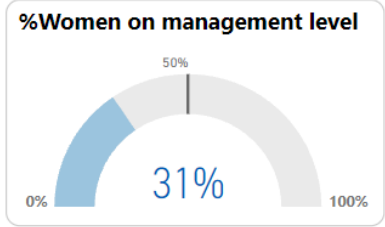
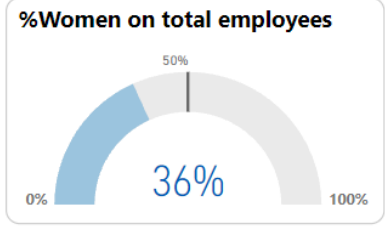
Via the KPI overview, the user can navigate to detailed pages



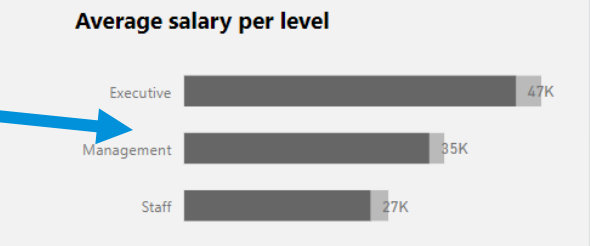
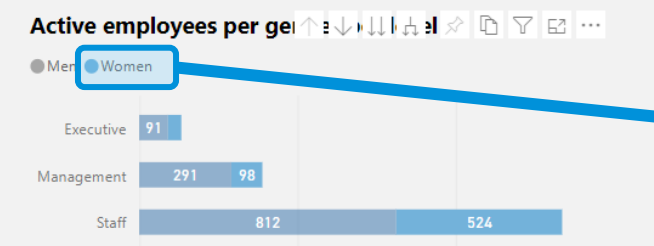
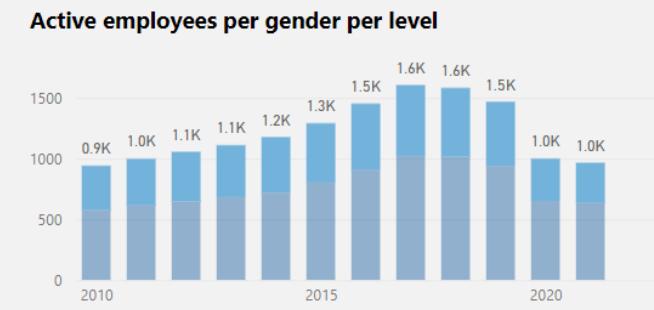
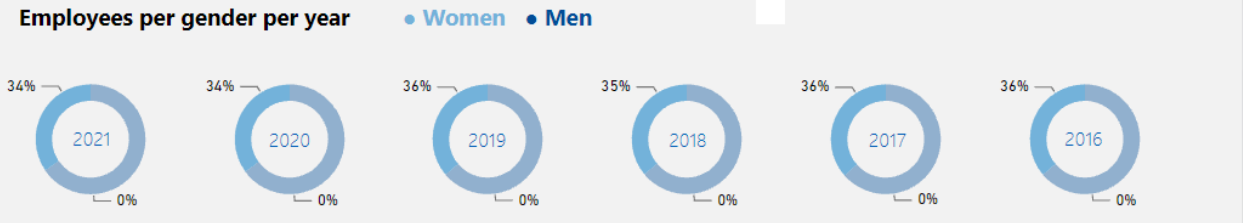
# DETAILED PAGES WITH ACTIONABLE INSIGHTS

Detailed pages provide actionable insights by leveraging available data. These dashboards support decision making of the topic owner and are tailored to the specific context of the topic or the organization.

Clear view on KPI: actual vs. target



Interactive visuals: Data-driven insights in drivers for success. (such as the pay-gap in this example)



Tailored visualizations provide insights from data available in various source systems.

# POWER APP FOR MANUAL DATA ENTRY

If data cannot be sourced automatically, manual data entry is supported via a custom application. A review cycle is embedded to enhance trust in data quality.

The screenshot shows a mobile application interface for "Electricity consumption". At the top, a dark blue header contains "Home" and a user profile icon labeled "Reviewer". Below this, a white header area features a globe icon and the title "Electricity consumption". The main content area is divided into two sections: "Values and comments history" on the left and "Review Form" on the right. The "Values and comments history" section shows a list of entries, with the most recent one from "David ManualDataInput" on 10/4/2021 at 2:10 PM. This entry has a value of 2890 and a comment "Consolidated information". A blue callout box points to this section with the text "Clear logs of the manual data entry and comments." The "Review Form" section contains a "VALUE" input field with "2890" and a unit of "kWh", a "FEEDBACK" text area with the placeholder "Write your feedback here (optional)", and three buttons: "SAVE REVIEW", "SEND FEEDBACK", and "VALIDATE". A blue callout box points to the "VALIDATE" button with the text "Reviewer can validate, overwrite or send the form back to the input user." At the top of the main content area, there are summary statistics: "SELECTED PERIOD Jan 2021 - Dec 2021", "TARGET VALUE 2800", "PREVIOUS YEAR VALUE 3050", and "CURRENT STATUS To review".

# POWER APP FOR MANUAL DATA ENTRY

The homepage of the manual data entry application clearly indicates which information is open for input, to review or validated.

The screenshot displays the 'KPI overview' page of a manual data entry application. At the top, a dark blue navigation bar contains 'Home' and a user profile icon labeled 'Reviewer'. Below this, a light blue header area shows a grid icon, the title 'KPI overview', and a personalized greeting 'Hi, Ann DataInputReviewer!'. The main content area features a 'Filter KPIs by Metric Pillar' section with a 'Reset filter' link and four filter buttons: 'PRINCIPLES OF GOVERNANCE' (dark blue), 'PLANET' (light blue), 'PEOPLE' (purple), and 'PROSPERITY' (teal). Below the filters is a grid of six KPI cards. Each card includes a globe icon, the KPI name, and three status counts: '# Open', '# To review', and '# Validated'. The 'Total social investment' card is highlighted with a teal arrow pointing to its status counts.

Metric Pillar	KPI Name	# Open	# To review	# Validated
PLANET	Electricity generation	1	0	2
	Waste recycled	1	0	2
PEOPLE	Wastewater generated	1	0	2
	Total social investment	1	0	2
PROSPERITY	Greenhouse gas emissions	1	0	2
	Electricity consumption	1	1	2

# DATA LINEAGE

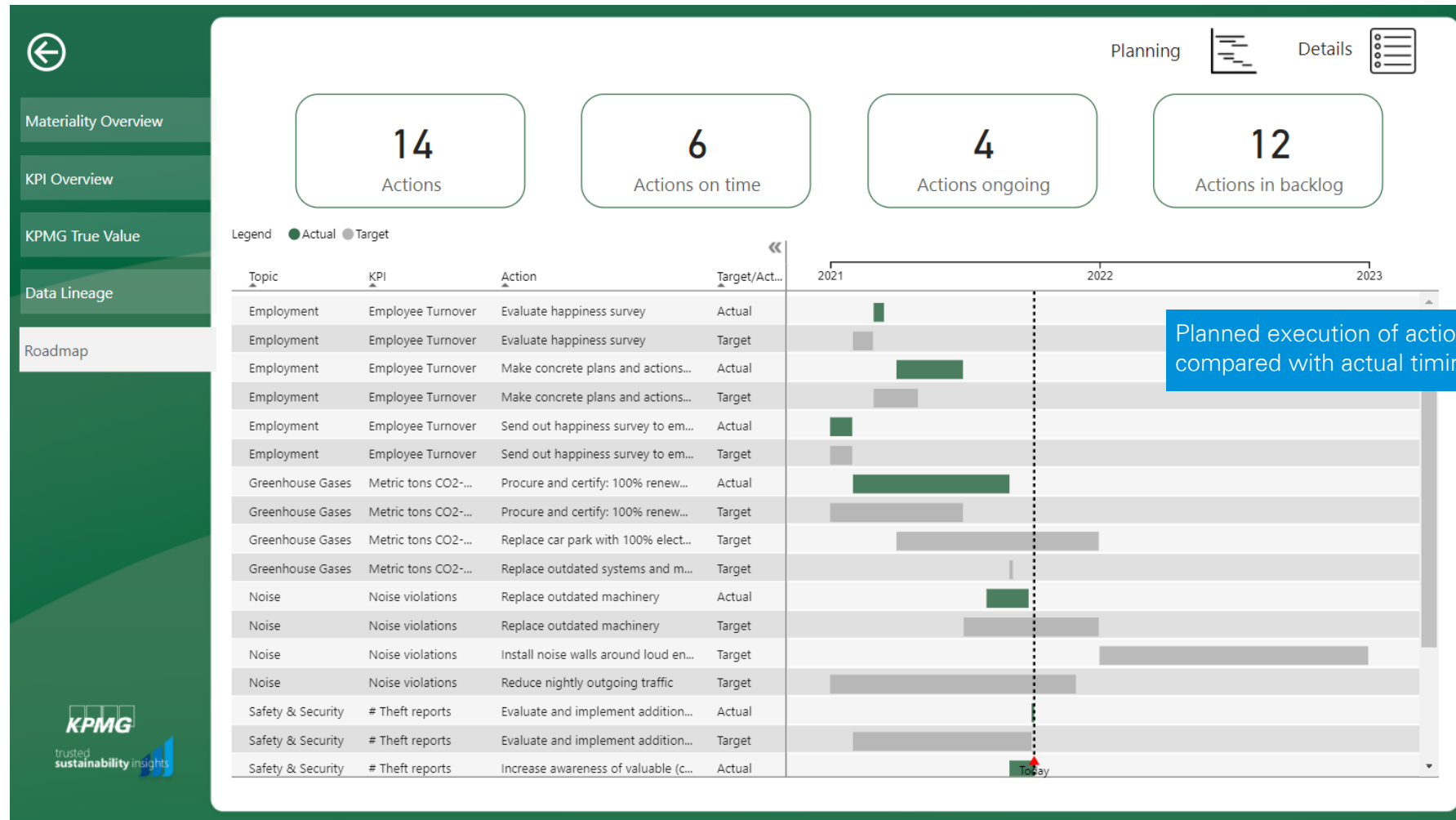
Multiple data sources are connected to host the sustainability dashboards. The data lineage page provides an overview of the data source per topic, and clearly indicates if data is complete.

The screenshot shows a 'Data lineage per KPI' table. At the top right, there are three status indicators: a green circle for 'updated', a yellow circle for 'data gaps', and a red circle for 'update missing'. The table has columns for GRI Topic, KPI, UoM, Source Type, Source System, Last Update, and Planned Next Update. A legend on the right side of the table indicates that green checkmarks represent 'updated', yellow exclamation marks represent 'data gaps', and red 'X' marks represent 'update missing'. The table lists various KPIs such as Air Quality, Connectivity, Digitization, Employment, Energy, Greenhouse Gases, and Human capital & Employee development, each with its corresponding data source and update status.

GRI Topic	KPI	UoM	Source Type	Source System	Last Update	Planned Next Update	Status
Air Quality	Air Quality Index: PM2,5	PM 2.5	automatic	Air Quality Meter	2020-10-06	2021-10-06	data gaps
Connectivity	# direct connections	connections	automatic		2020-10-06	2021-10-06	data gaps
Connectivity	Total social investment	million euros	manual input	Power App		2022-01-01	data gaps
Customer relationship	Money losses for unethical behavior	million euros	manual input	Power App		2022-01-01	data gaps
Digitization	Energy consumption	MWh	automatic		2021-09-24	2022-09-24	updated
Employment	% Employees with minimal wage	%	automatic	HR Database	2020-10-06	2021-10-06	data gaps
Employment	Percentage female employees	%	automatic	HR Database	2020-03-21	2021-03-21	update missing
Employment	Percentage female employees	%	automatic	HR Database	2021-03-21	2022-03-21	updated
Employment	Percentage female managers	%	automatic	HR Database	2020-10-06	2021-10-06	data gaps
Energy	Electricity consumption	kWh	manual input	Power App		2022-01-01	data gaps
Energy	Electricity consumption	kWh	manual input	Power App	2021-09-28	2022-09-28	updated
Energy	electricity consumption per m <sup>2</sup>	kWh/m <sup>2</sup>	automatic		2020-10-06	2021-10-06	data gaps
Energy	Electricity generation	kW	manual input	Power App		2022-01-01	data gaps
Greenhouse Gases	% Sustainable mobility	%	automatic	Mobility Database	2020-10-06	2021-10-06	data gaps
Greenhouse Gases	Financial assistance received by the government	million euros	manual input	Power App		2022-01-01	data gaps
Greenhouse Gases	metric tons CO2-e emissions	kiloton	automatic	CO2 Emission Meter	2020-10-06	2021-10-06	data gaps
Human capital & Employee development	Budget Spent on Training	euros	automatic	Budget Monitoring System	2020-10-06	2021-10-06	data gaps
Human rights	Wastewater generated	million m <sup>3</sup>	manual input	Power App		2022-01-01	data gaps
Innovation & Sustainable infrastructure	Complaints	complaints	automatic	Complaint	2020-10-06	2021-10-06	data gaps

# ROADMAP

The sustainability roadmap describes which actions will be implemented to reach the commitments. Via Trusted Sustainability Insights, implementation of the actions on the roadmap is monitored.



# ROADMAP

For actions that are completed, the expected impact on a KPI is compared with the observed value for the specific indicator. This allows to evaluate periodically if the roadmap will lead to the anticipated results.

The screenshot displays a sustainability roadmap interface with a left-hand navigation menu and three main sections: Backlog, Ongoing, and Finished.

**Backlog Section:**

Topic	Action	Role	Target Start Date	Target End Date	KPI
Greenhouse Gases	Replace car park with 100% electric cars	Mobility	2021-04-01	2021-12-31	Metric tons CO2-e emissions
Greenhouse Gases	Replace outdated systems and machinery	Facilities	2021-09-01	2021-01-01	Metric tons CO2-e emissions
Noise	Install noise walls around loud environments on site	Facilities	2022-01-01	2022-12-31	Noise violations
Noise	Reduce nightly outgoing traffic	Facilities	2021-01-01	2021-11-30	Noise violations
Safety & Security	Increase number of security cameras on site	Facilities	2021-07-01	2021-12-31	# Theft reports
Safety & Security	Introduce safety lockers in the workspaces	Facilities	2021-01-01	2021-01-01	# Theft reports

**Ongoing Section:**

Topic	KPI	Action	Role	Target Start Date	Actual Start Date	Target End Date	Actual End Date
Safety & Security	# Theft reports	Evaluate and implement additional safety measures	Human Resources	2021-02-01	2021-10-01	2021-10-01	
Safety & Security	# Theft reports	Increase awareness of valuable (company) items through info sessions	Human Resources	2021-05-01	2021-09-01	2021-06-01	

**Finished Section:**

Topic	Action	Role	Target Start Date	Actual Start Date
Employee Well-being	Make concrete plans and actions based on happiness survey	Human Resources & Management	2021-03-01	2021-04-01
Employee Well-being	Install new alarming systems	Facilities	2021-04-01	2021-04-01
Employee Well-being	Send out happiness survey to employees	Human Resources	2021-01-01	2021-01-01
Employee Well-being	Evaluate happiness survey	Human Resources	2021-02-01	2021-03-01
Employee Well-being	Make concrete plans and actions based on happiness survey	Human Resources & Management	2021-03-01	2021-04-01
Greenhouse Gases	Procure and certifi: 100% renewable enerav	Facilities	2021-01-01	2021-02-01

**Tooltip:** A tooltip for the action "Make concrete plans and actions based on happiness survey" shows a bar chart comparing Actual (0.58), Baseline (0.55), and Expected (0.61) values for the KPI "Employee Well-being".

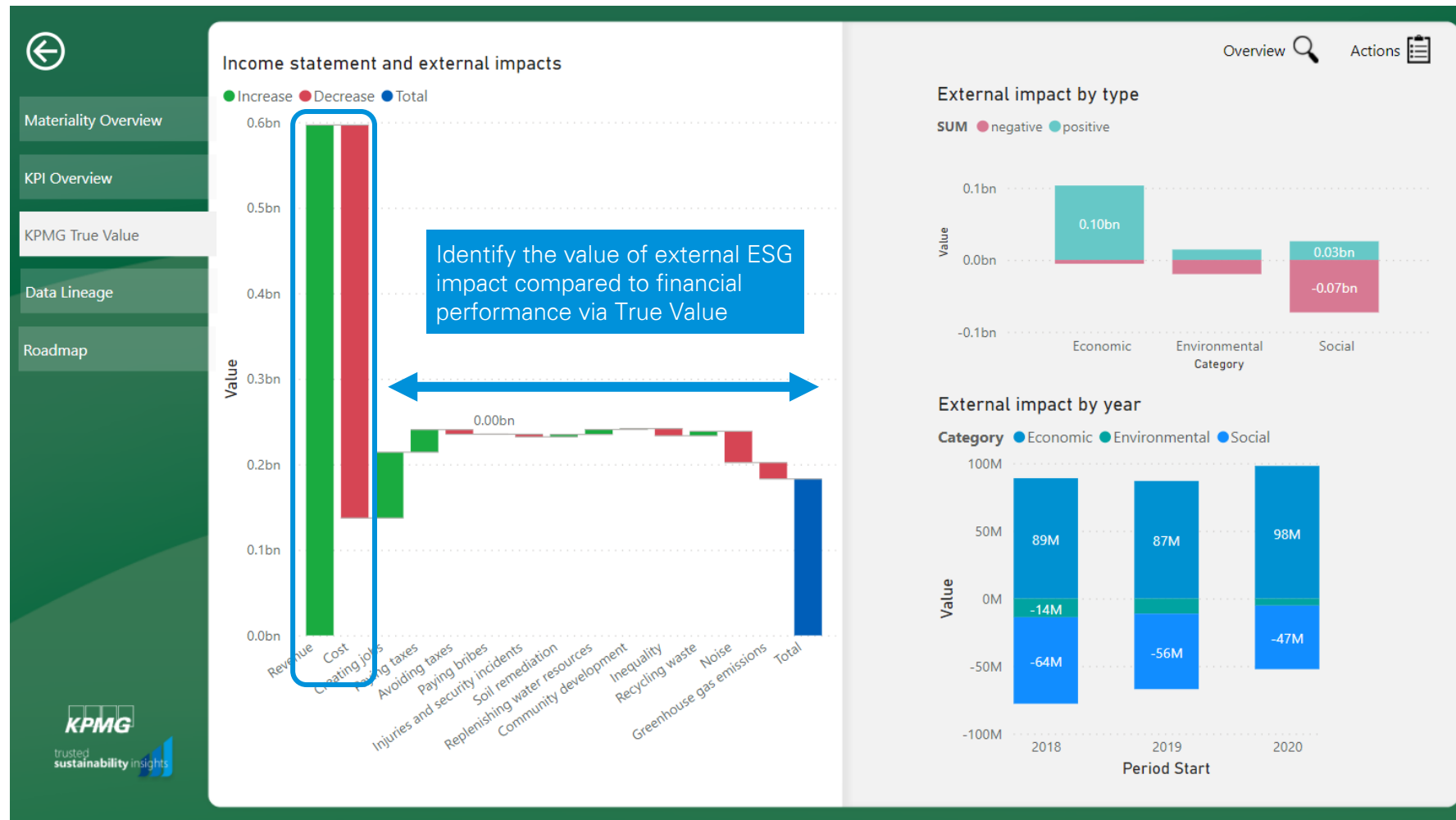
A tooltip allows to compare the observed impact of a specific action with the anticipated outcome.

The status of different actions on the sustainability roadmap is clearly indicated.



# IMPACT ASSESSMENT VIA TRUE VALUE

An impact assessment on the material topics allows to quantify external costs and benefits.



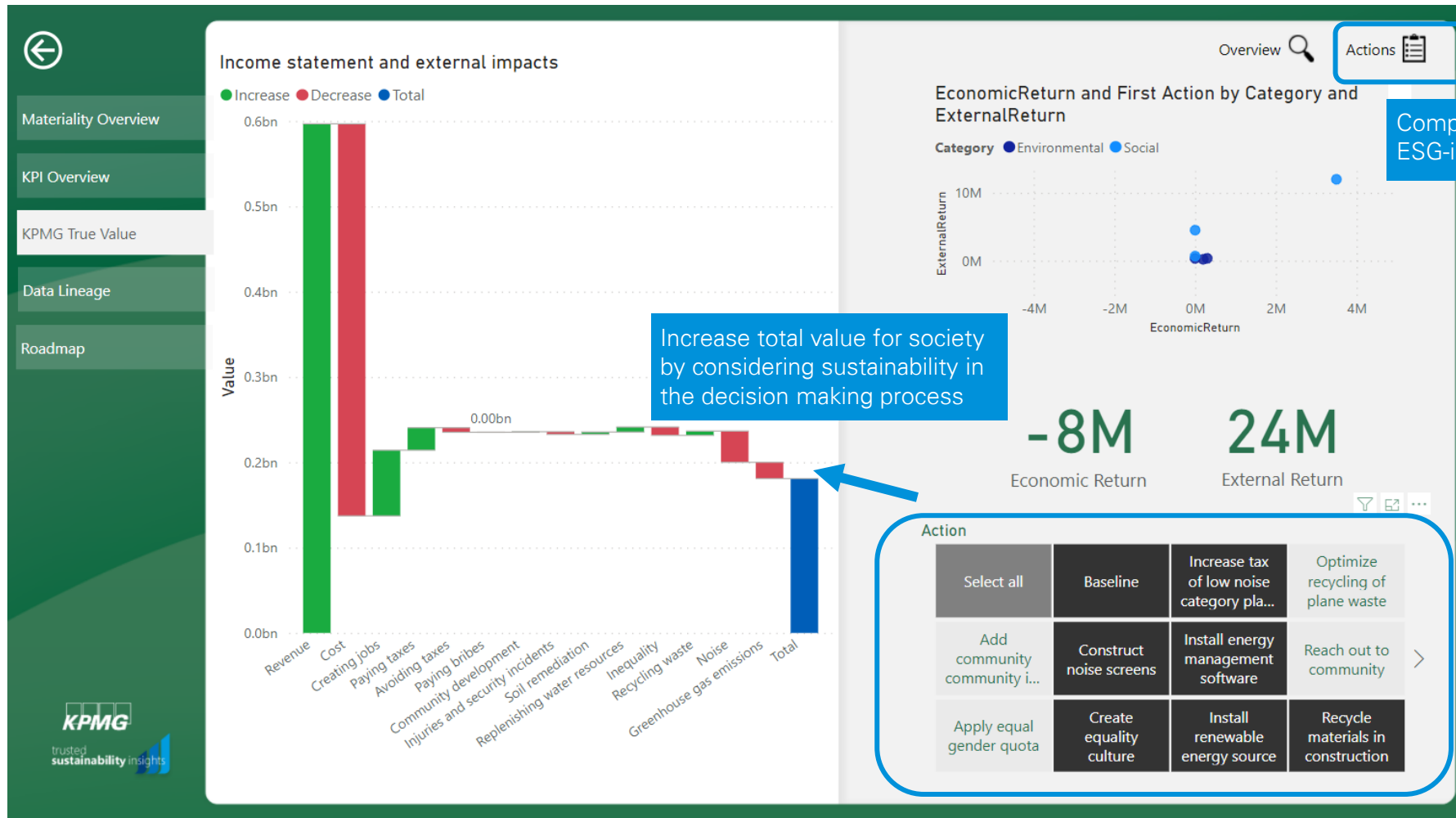
# IMPACT ASSESSMENT VIA TRUE VALUE

The importance of different impacts can be compared and evolution over time can be tracked.



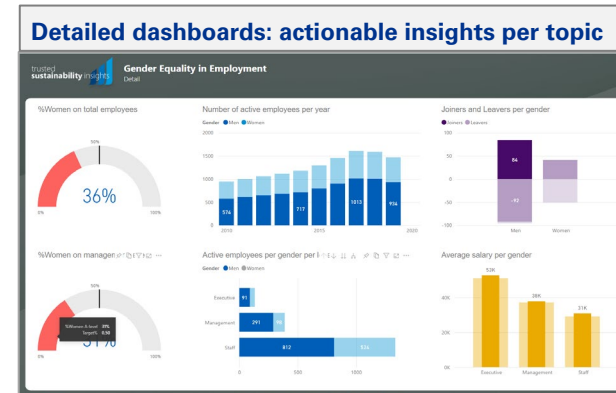
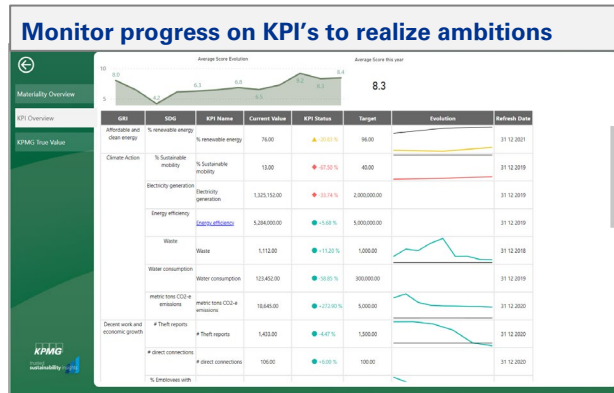
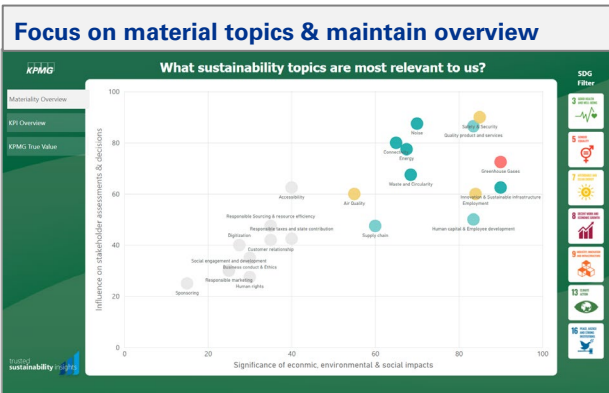
# IMPACT ASSESSMENT VIA TRUE VALUE

The impact assessment allows to consider ESG-impact in decision making, and provides a way to consider both financial criteria as sustainability impact when evaluating an action or scenario.



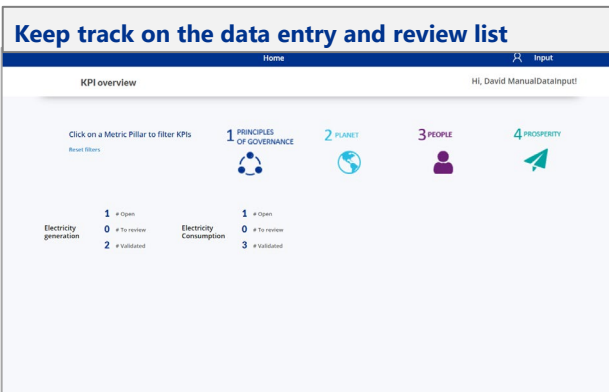
# TRUSTED SUSTAINABILITY INSIGHTS - Overview of building blocks of the solution

The key building blocks of Trusted Sustainability Insights are summarized below:



### Enhance transparency via data lineage view

KPI	Unit	Source Type	Source System	Last Update	Planned Next Update	
Air Quality	PM2.5	automatic	Air Quality Meter	2020-10-06	2021-10-06	
Connectivity	# direct connections	automatic	Power App	2020-10-06	2021-10-06	
Connectivity	Total social investment	manual input	Power App	2022-01-01	2022-01-01	
Customer relationship	Money losses for unethical behavior	manual input	Power App	2021-09-24	2022-09-24	
Digitalization	Energy consumption	automatic	HR Database	2020-10-06	2021-10-06	
Employment	% Employees with minimal wage	%	automatic	HR Database	2020-10-06	2021-10-06
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Greenhouse Gases	metric tons CO2e emissions	kiloton	automatic	CO2 Emission Meter	2020-10-06	2021-10-06
Human capital & Employee development	Budget Spend on Training	euros	automatic	Budget Monitoring System	2020-10-06	2021-10-06
Human rights	Wastewater generated	million m³	manual input	Power App	2022-01-01	2022-01-01



### Input and review manual data to boost data quality

Electricity Consumption

SELECTED PERIOD: Jan 2021 - Dec 2021

TARGET VALUE: 2800

PREVIOUS YEAR VALUE: 2957

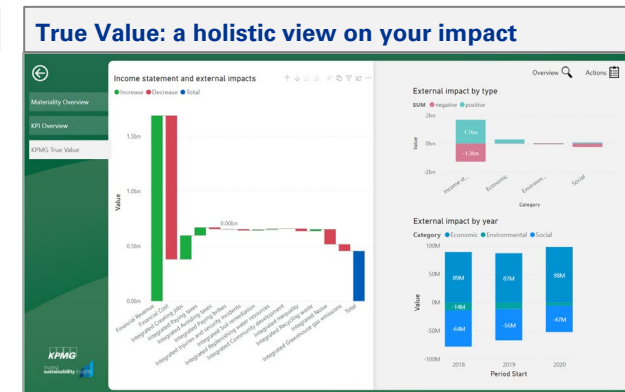
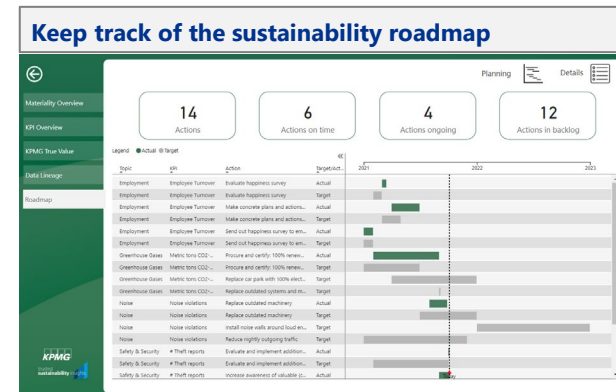
CURRENT STATUS: To review

Input Form: VALUE: 2756 kilowatts

Review Form: VALUE: 2756 kilowatts

FEEDBACK: Provide the source details please.

Buttons: SAVE REVIEW, SEND FEEDBACK, VALIDATE





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