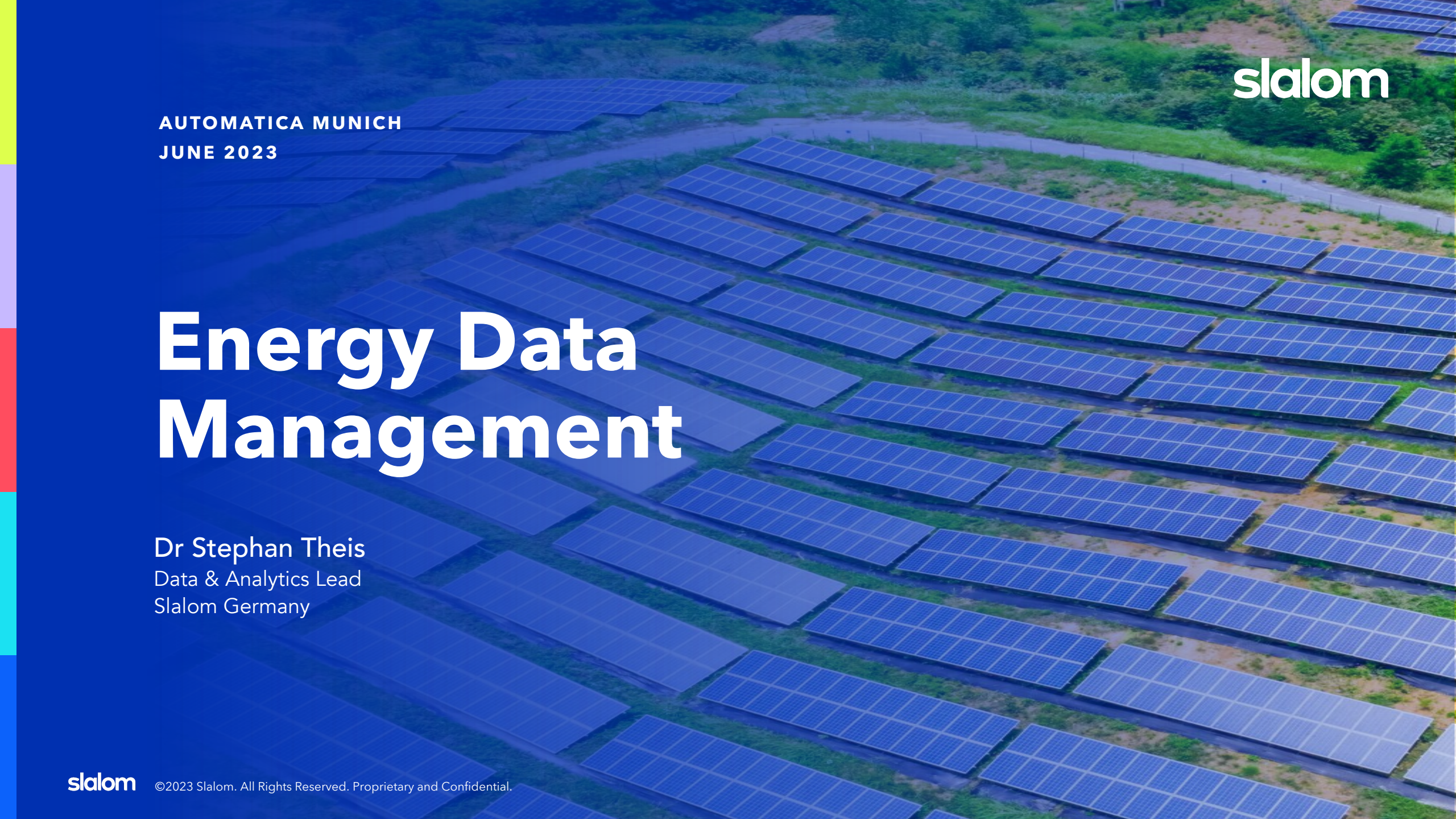


AUTOMATICA MUNICH
JUNE 2023

Energy Data Management

Dr Stephan Theis
Data & Analytics Lead
Slalom Germany

Today's agenda

Business benefits of energy data management?

The new „impact framework"

Bring value using data analytics

Organisational challenges

What's next?

Why is it important to manage energy data?

Key benefits

Cost savings

Identifying energy consumption patterns and areas of energy waste. Optimization and reduction in consumption.

Increased Productivity

Reducing downtime and maintenance costs.

Sustainability & Carbon footprint

Increased sustainability and reduced carbon footprint.

"Overall improved operational efficiency and productivity."

Transparency, Accountability, Compliance

Better tracking and reporting of energy usage.

Enhanced Safety

Monitoring of energy usage and equipment performance.

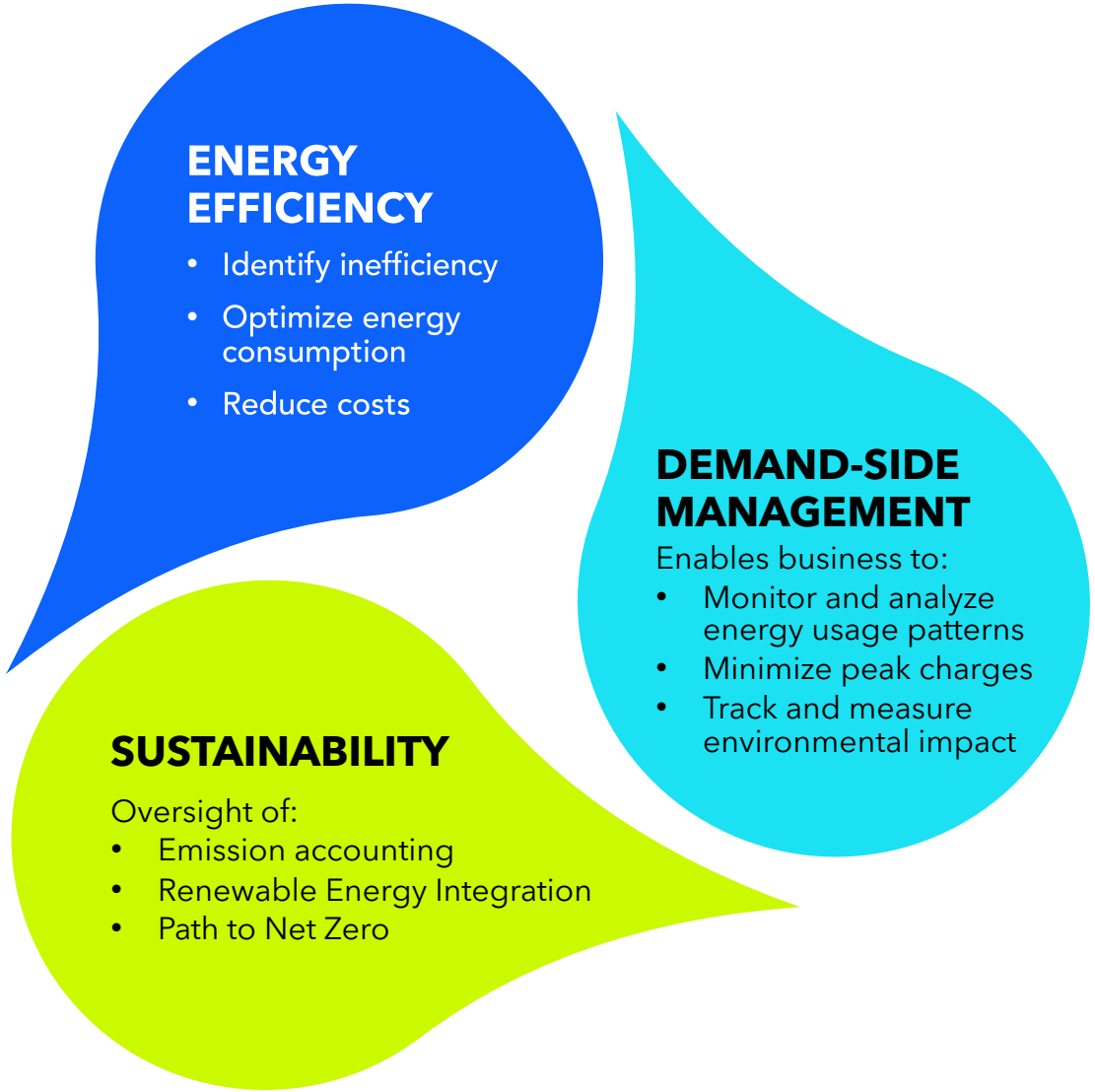
Competetive Advantage

Improving energy performance and decision-making through data-driven insights.

What is energy data management?

Energy data management refers to the processes, strategies, and systems implemented by organizations to effectively collect, analyse, and utilize energy-related data for various purposes.

It speaks to a company's ability to responsibly and sustainably grow their business and build resilience.



The new
‘Impact Framework’

Probability for 2+ impact factors at the same time: ***>90%***

DEMAND

Decrease in forecastability and robustness of demand

COVID-19 impact and current economic downturn

Reliability of contracts

SUPPLY CHAIN VOLATILITY

(Global) availability demands flexibility in production lines

Global supply chain stability decreases

Trade barriers

Geo-political conflicts

PRICE INCREASE

Inflation, gas crises, protection measures

Energy markets become turbulent

EMISSIONS

Emission pricing increases management of complexity

Carbon emission certificates

Offsetting

Where to get all the data from?

Data Sources

IoT Devices

→ Devices equipped with sensors that collect real-time data on energy consumption and production.

Smart Meters

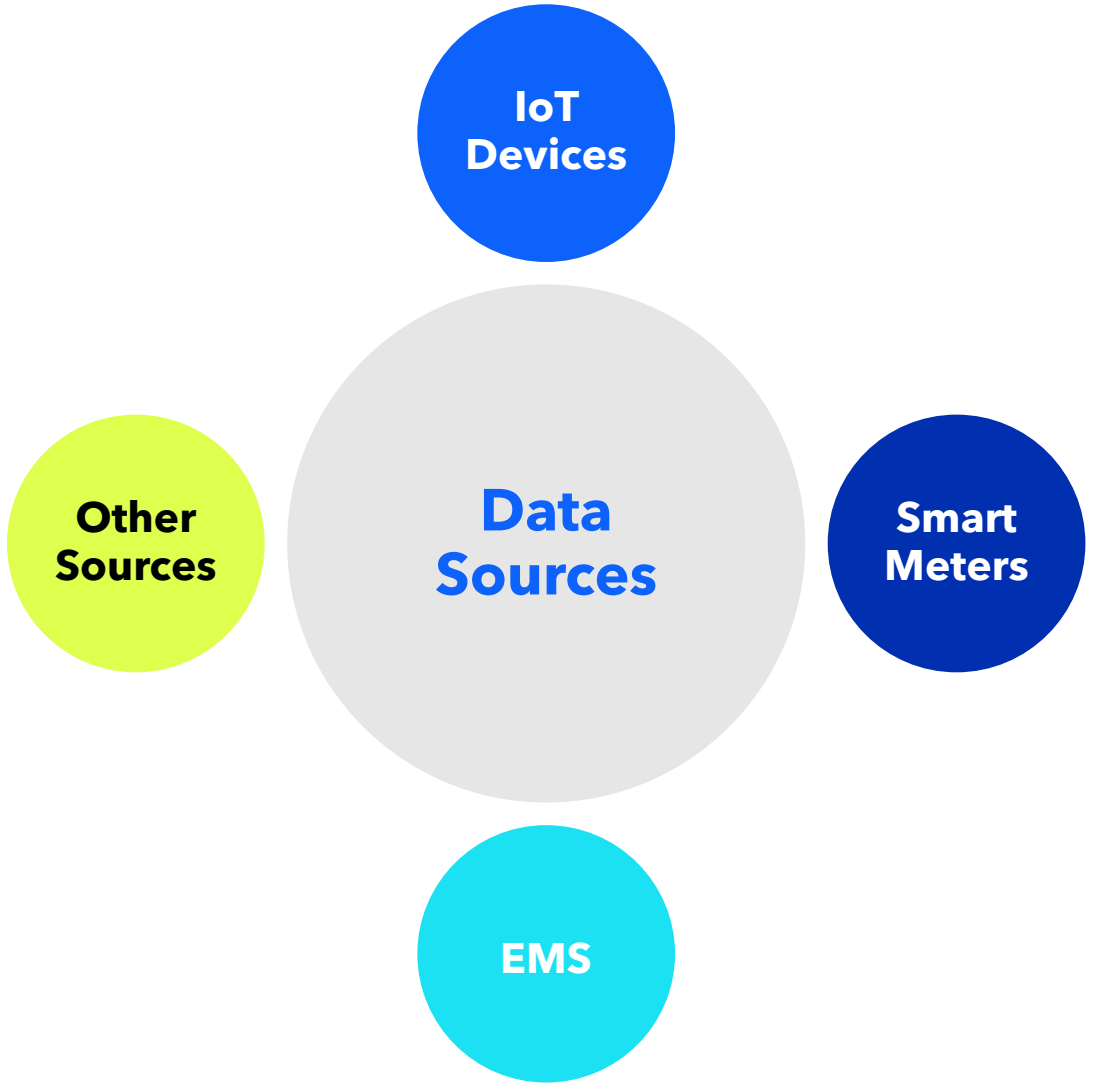
→ Devices which monitor and measure energy usage and provide real-time data.

Energy Management Systems (EMS)

→ Used to monitor and control energy usage. Provide real-time data on energy consumption.

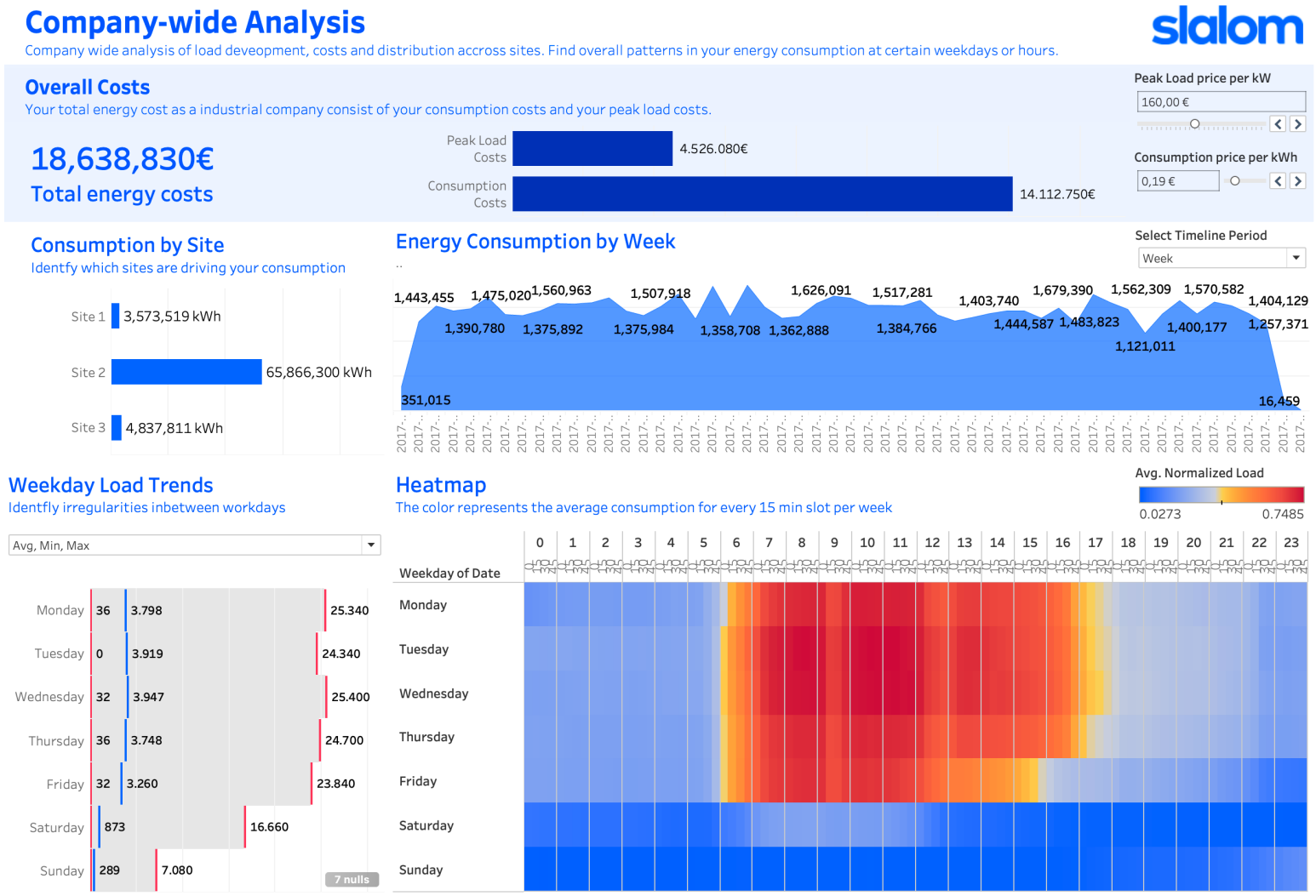
Other Sources

→ Can include historical energy usage data, weather data, production data, and other relevant data sources.



Report & drive impact

> Bringing value using data analytics starts with **seeable solutions.**



Organizational challenges

BREAKDOWN SILOS

Energy data may reside in separate systems or departments

- Integrate data from various sources
- Implement data warehouses, dashboards etc. to access and share data across different functions

CHANGE MANAGEMENT

Changes in culture, processes, workflows, and technology

- Plan and execute change management strategies
- Ensure smooth adoption, minimize resistance
- Leverage data literacy across organization

DATA IS EVERYTHING

Data collection, integration, storage and management, processing

- Data quality and data consistency
- Data governance and privacy, compliance with regulations with a unified approach across the whole organization
- Data skills and expertise in demand

FUTURE-PROOF TECHNOLOGY

Cloud-native technology with future-proof infrastructure

- Technology with scalability and flexibility to meet needs of today and future
- Data security management
- IoT

STAKEHOLDER ENGAGEMENT

Engaging stakeholders and aligned operations

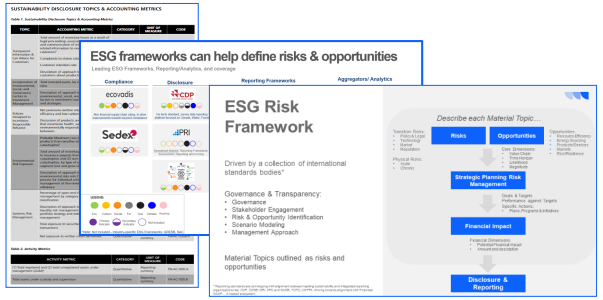
- Build seeable solutions
- Secure buy-in and support from leadership
- Ongoing training, clear communication, transparent process, effective support for team members

Accelerators to turbo charge your journey

Unlocking insights, efficiency, and speed

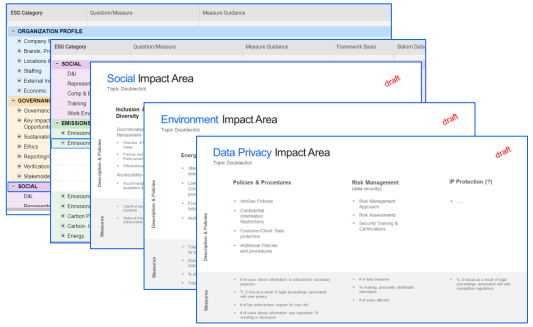
Reporting Guidelines

Leveraging ESG Risk Framework Outline and Standard Reporting Guidelines



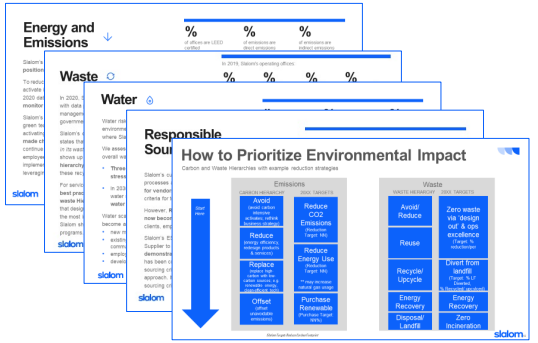
Measures & Data Management

Leveraging Rationalized Impact Area Topics and Measures & Collection Worksheet



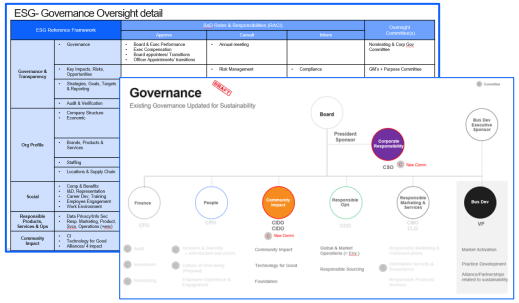
Assessment Briefs

Leveraging Impact Area Findings Brief & Improvement Guides



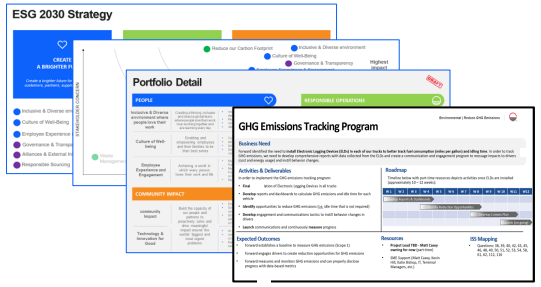
Governance Model

With Management Approach/Committees



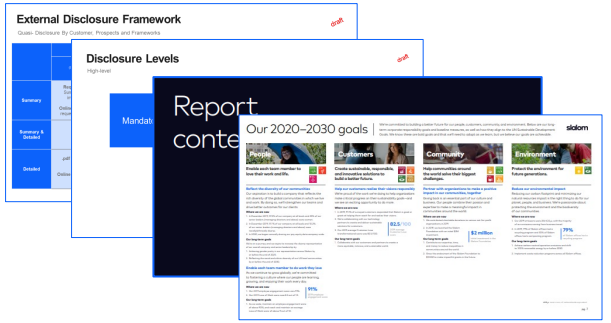
Framework & Roadmap

High-level Roadmap & Goals



Disclosure & Transparency

With Example Goals



Slalom is a purpose-led, global business and technology consulting company.

Our purpose is to help people and organizations dream bigger, move faster, and build better tomorrows for all.

Started in 2001, we have today 14,000+ team members in 8 countries and 45 markets around the world

Thank you!

Let's connect

Stephan Theis

Data & Analytics Lead Germany