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ESG Data Management and Analytics

Using data analytics to generate valuable insights into your ESG performance





YOUR HOSTS TODAY



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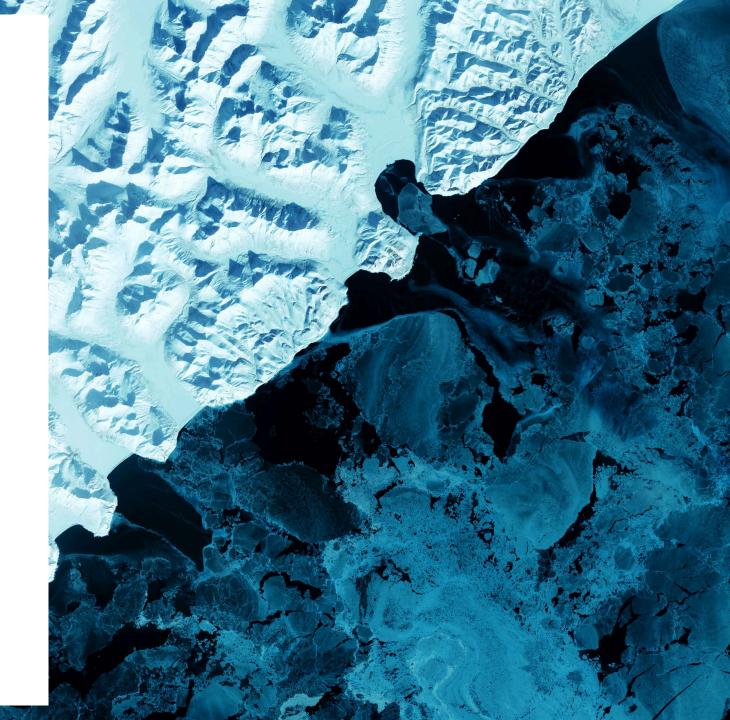
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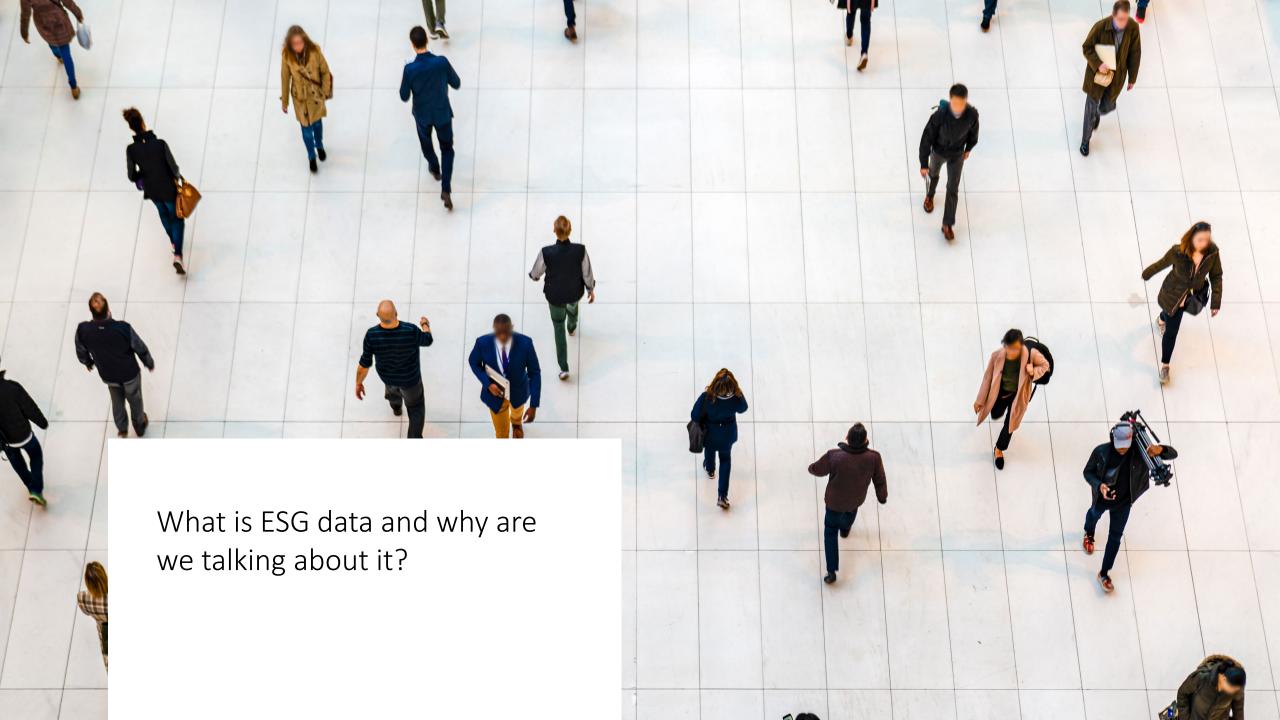


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AGENDA

- 1. What is ESG data and why are we talking about it?
- 2. What is the foundation for mastering ESG data?
- 3. How can we use ESG data and AI/ML to achieve greater insights and make better decisions?





ESG DATA TAKE MULTIPLE FORMS AND RESIDE ACROSS MULTIPLE CORPORATE AND PARTNER SYSTEMS

EXAMPLES OF ENVIRONMENTAL SOCIAL GOVERNANCE TOPICS

EXAMPLES OF TYPES OF DATA



EXAMPLES OF DATA SOURCES



Е

S

G

Energy consumption Carbon emissions Water consumption Waste management

Working conditions, health & safety
Human rights and labour rights
Diversity and inclusion
Privacy and data security

Accountability and oversight
Ethical conduct
Executive remuneration

Consumption data
Safety data
Emissions data
Survey data

Status reports (unstructured) RSS feeds (unstructured)

Measured Calculated Estimated Extracts from ERP system, HR, HSE and other corporate systems

Performance data collected from suppliers, partners and other third parties

Media (incl. social)

Satellite imagery and geolocation data

Other public data

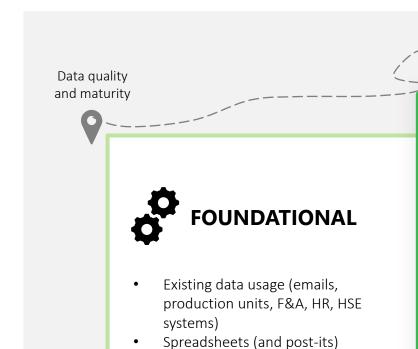
FOCUS ON ACCESSIBILITY, AVAILABILITY AND TRANSPARENCY OF ESG DATA IS ACCELERATING







MANY COMPANIES ARE GRADUALLY IMPROVING THE QUALITY OF ESG DATA MANAGEMENT FOR BETTER DECISION-MAKING



reports)

Manual data management

High-level partner input (e.g. from



ADVANCED

- Standard ESG reporting tools
- BI/Analytics dashboards
- Detailed supply chain reporting
- Sourced third party data
- Investing in "for-purpose" solutions (often Al-powered)

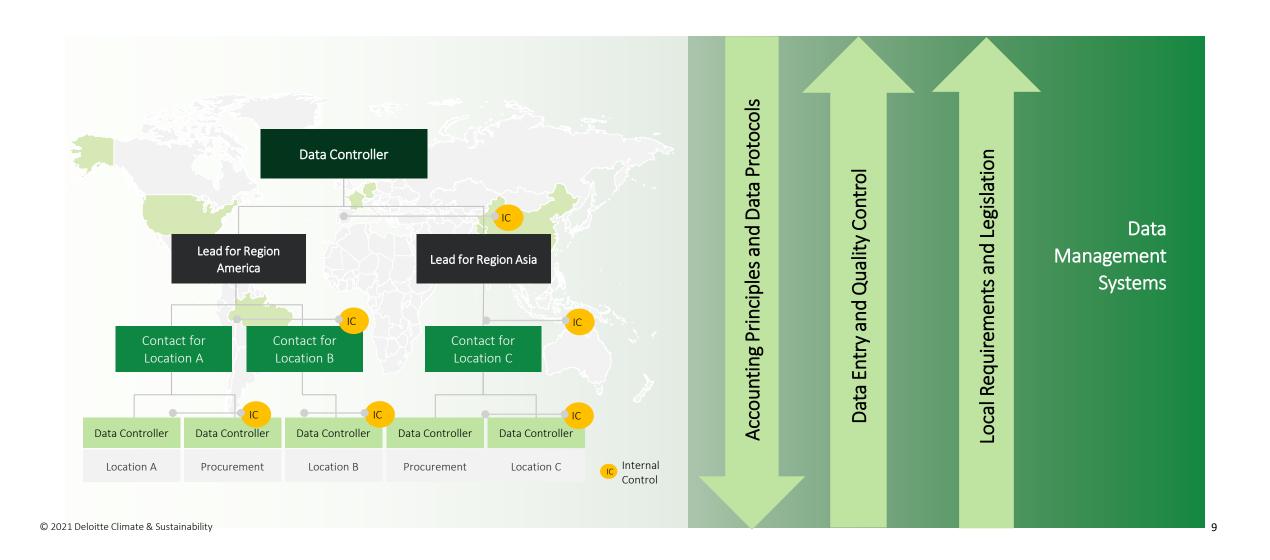


LEADING

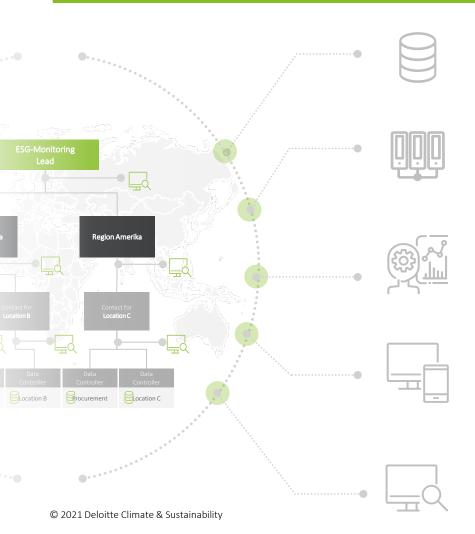
- Boardroom using ESG data-driven insights
- Advanced ESG forecasting and predictions at the heart of strategic decision-making
- Exploration and investment in solution-building and data acquisition
- ESG data of sufficient quality to be tied to compensation and bonus schemes
- Ecosystem collaboration around new technologies, business models and partnerships

ESG data is evolving from static and backward-looking to dynamic and forward-looking, harnessing the digital revolution.

STRONG GOVERNANCE IS NEEDED TO BUILD THE CONTROL ENVIRONMENT FOR ESG DATA TO THE LEVEL OF FINANCIAL DATA



GETTING ESG DATA RIGHT REQUIRES A STRONG FOUNDATION AND SYSTEMIC APPROACH ACROSS IT, PROCESSES AND CONTROL



Definition of Metrics and Data Transparency

- ✓ Metric definitions, standard protocols and measurements
- ✓ Compliance with relevant external standards
- ✓ Alignment of assumptions, projections, measurements and the use of conversion factors in calculations
- ✓ Protocol for avoiding aggregations- and conversion errors (US ton vs. metric ton)

Scope of Consolidation and Reporting Scope

- ✓ Consistent scope of consolidation and reporting period with key financial figures
- ✓ Specification of 'consolidation groups', e.g. ensuring alignment on which locations are relevant for collection of environmental indicators

Roles and Responsibilities

- ✓ Clear allocation and definition of ownership and responsibilities as well as adequate competencies
- ✓ Formal procedures to ensure sufficient knowledge-sharing

Processes and IT

- ✓ Formal reporting processes
- ✓ Corporate reporting requirements and alignment of processes at each relevant location
- ✓ Definitions and descriptions of relevant data
- ✓ Use of IT-systems
- ✓ Clear and robust interfaces between manual and automated processes

Internal Control Systems

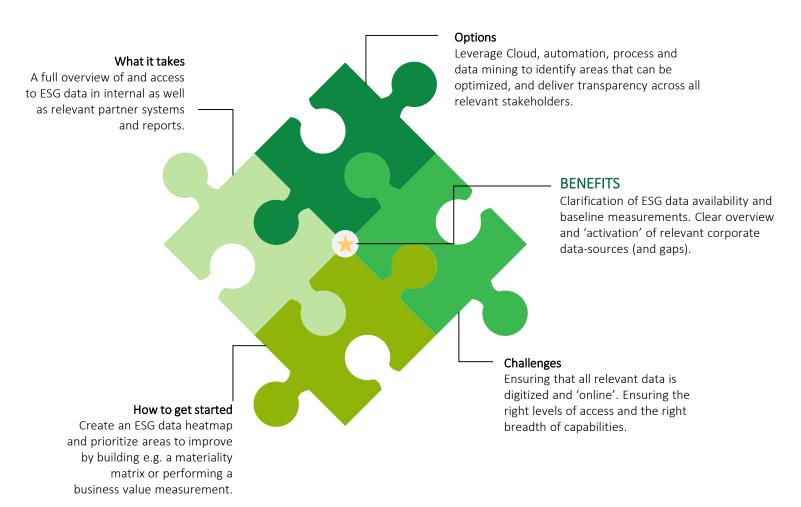
- ✓ Formal and operational control systems for non-financial key metrics
- ✓ Design Controls are designed to address the risk of false statements
- \checkmark Implementation Ensuring that the controls are correctly implemented
- ✓ Operating Effectiveness Ensuring that the controls are working optimally



DATA-DRIVEN INSIGHTS REQUIRE VIGILANCE AND ALIGNMENT — AND THE INVOLVEMENT OF YOUR ENTIRE ECOSYSTEM



COLLECT, COLLATE, AGGREGATE AND ANALYZE ALL RELEVANT ESG DATA TO DELIVER RELIABLE MEASUREMENT



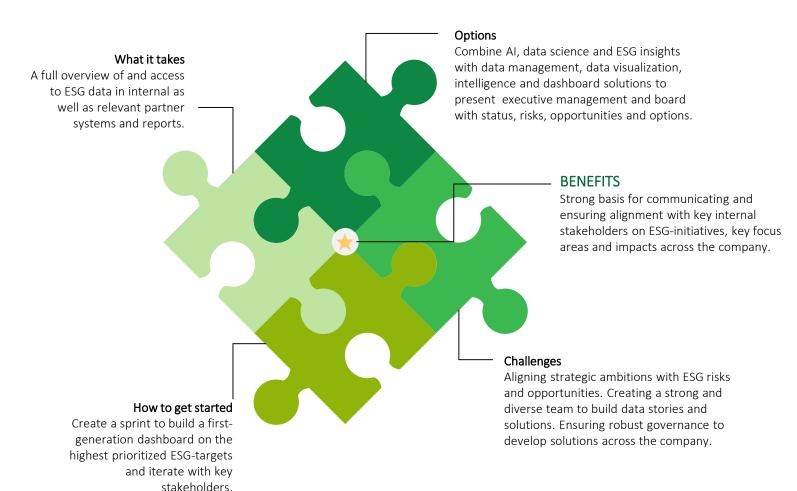


Data Management Platforms



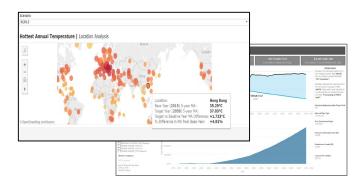
Standardize, collect and aggregate ESG data in 1 cloud platform with full audit trail

ENSURE MANAGEMENT ALIGNMENT AND BASE DECISIONS ON INSIGHT INTO MOST MATERIAL RISKS AND OPPORTUNITIES



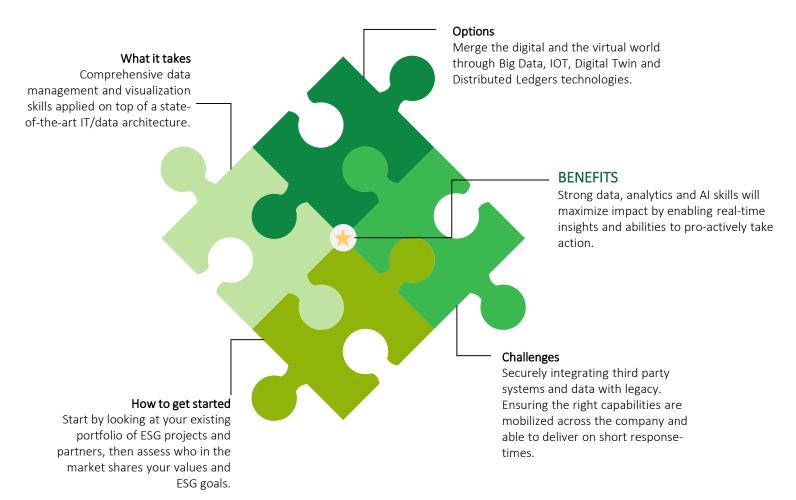


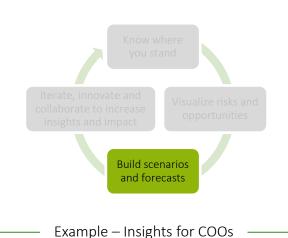
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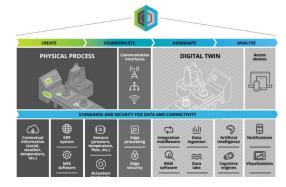
Global physical climate risk analysis
Investment Portfolio risks and exposures

COMBINE DATA AND DIGITAL TECH TO FORECAST AND PREDICT THE MOST IMPACTFUL ACTIVITIES AND INVESTMENTS



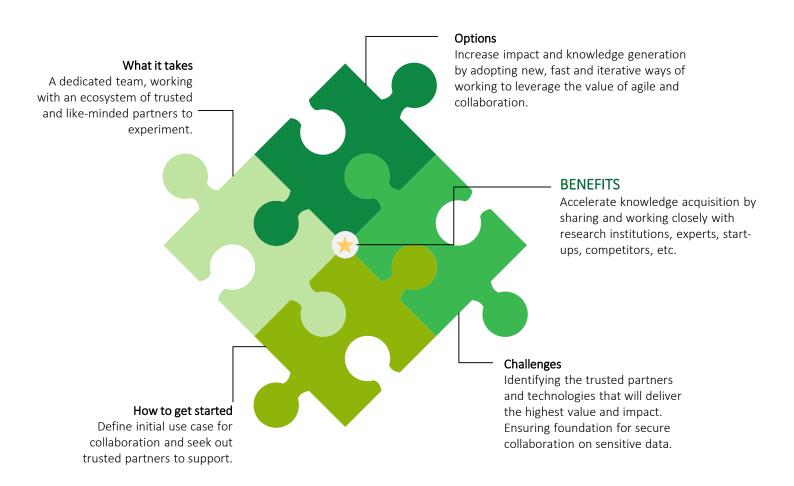


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Digital Twin Architecture to combine insights, analysis, and simulations based on real data

CONTINUE TO ITERATE AND COLLABORATE TO FIND NEW WAYS TO INCREASE INSIGHTS FOR GREATER IMPACT





Example – Insights for Everyone





Green Sustainability Hub - leveraging a platform to make all datasets available for collaboration to relevant stakeholders

ESG DATA ANALYTICS CAN OPEN UP FOR DEEP INSIGHTS THAT DRIVE BETTER DECISION-MAKING

... provided there is the right architecture, governance and vigilance in place.



Getting ESG data management right is an **iterative process** that requires a continuous commitment to improving skills, competencies and ways of working.



Meaningful insights and impacts cannot be delivered alone by a core ESG-team but require the **commitment of the entire company**, often in collaboration with partners, suppliers and customers.



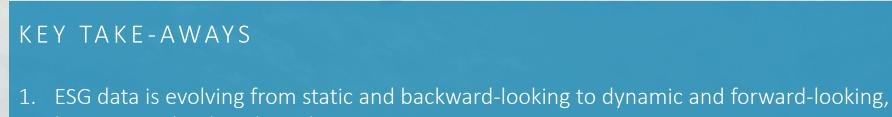
This simple loop starts with getting the 'data foundation' in order and then gradually increasing the technical complexity to deliver greater insights and impact.

Know where you stand

Iterate, innovate and collaborate to increase insights and impact

Visualize risks and opportunities

Build scenarios and forecasts



- harnessing the digital revolution.
- 2. Embrace robust ESG data as a new window into your business. It will help you to govern sustainability at scale and achieve real ESG impact.
- 3. Keep calm. It's a journey. Start small and allow to grow big.



Data has a better idea

THANK YOU - PLEASE REACH OUT IF YOU WANT TO KNOW MORE



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