ISCA-LawSoc's Sustainability Apex Programme (SAP)

Masterclass 10: ESG Tech and Data

August 2026

Agenda for today's masterclass…

Introduction to ESG Tech and Data

Explore how ESG tech and data supports sustainable business practices, and why they are essential for managing ESG performance.

1.1 The importance of ESG Tech and Data

ESG Tech Trends

Examine key ESG tech trends to identify how emerging technologies like AI, IoT, and blockchain are driving environmental responsibility, enhancing social impact, and strengthening governance

2.1 Key ESG Tech Trends

ESG Tech Strategies for Businesses

Discover how to develop a digital strategy that supports your sustainability goals

3.1 Overview of ESG Tech Strategies

ESG Tech in Data Collection and Decarbonisation

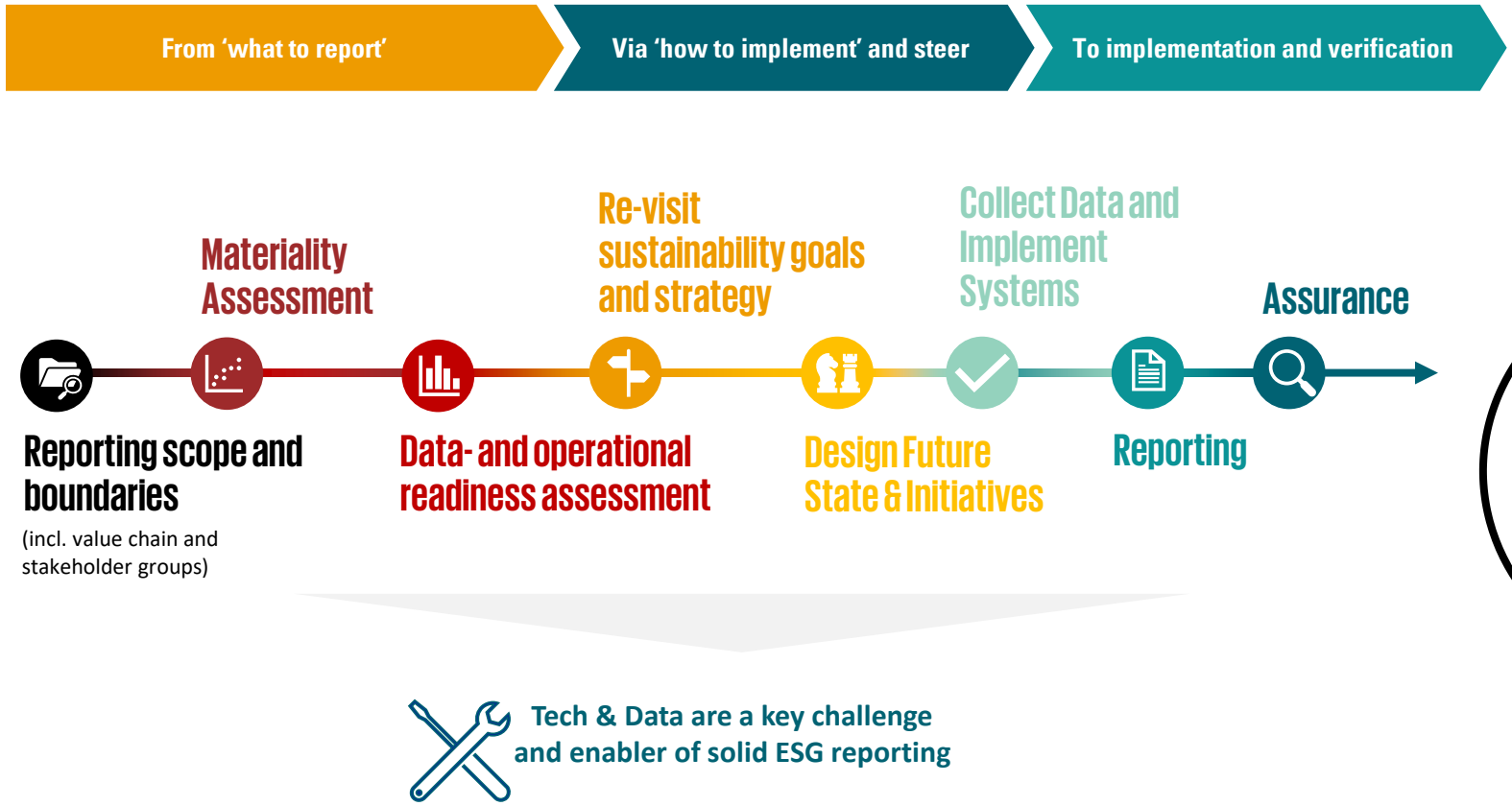
Focus on gaining insights into how to leverage ESG technologies in facilitate the process of data collection for reporting and decarbonisation journey

4.1 ESG Tech in Data Collection for Reporting

4.2 ESG Tech in Decarbonisation Journey

Regulatory disclosures rely on well-managed, high quality data

The implementation of ESG directives is far from simple. It requires the collaboration of various stakeholders, including the finance team, risk, data specialists, IT professionals, and sustainability experts. As there is no progress without reliable data, the focus of many companies is on how to get this right.



Technology Trends in Advancing Sustainable Practices

Companies are leveraging innovations like AI, IoT, and blockchain to improve resource efficiency, enhance transparency, and support environmentally responsible operations. These technologies enable smarter decision-making, real-time monitoring, and data-driven strategies that help organizations reduce their environmental impact while boosting productivity and resilience.

Internet of Things (IoT)

IoT devices support sustainable practices by enabling real-time monitoring and intelligent control of energy, water, and material usage.

The connectivity enabled by IoT brings about several benefits:

- Enhanced Traceability
- Predictive Maintenance
- Optimised Resource Use

Artificial Intelligence (AI)

Artificial Intelligence (AI) plays a pivotal role in driving sustainability by enabling smarter decision-making, optimizing resource use, and reducing environmental impact.

AI technologies offer several advantages:

- Enhanced Operational Efficiency
- Smarter Resource Allocation
- Streamlined Processes
- Data-Driven Optimization

Blockchain

Blockchain technology enhances sustainability by enabling transparency and traceability across supply chains, ensuring responsible sourcing and ethical production.

Blockchain's decentralised nature provides several benefits:

- Transparency and Traceability
- Enhanced Trust
- Reduced Fraud and Counterfeiting

ESG Technology Strategies Commonly Adopted

Companies and businesses are optimising IT for sustainable operations and reducing carbon footprints. Making IT operations sustainable involves reducing environmental impact while maintaining efficiency, security, and cost-effectiveness without compromising on functionality. Here are key strategies commonly adopt by businesses:

Optimise IT Infrastructure	Switch to Green Data Centers	Adopt Sustainable Software Development	Build Sustainable IT Procurement Practices	Embrace Energy-Efficient Workplace IT Practices
Cloud Migration	Energy-Efficient Cooling	Code Optimization	Eco-Friendly Vendors	Power Management Policies
Server Virtualization	Renewable Energy Sourcing	Efficient Algorithms	Circular Economy Approach	Thin Clients
Edge Computing	Efficient Hardware	Serverless Computing	Lifecycle Assessment	Remote Work & Virtual Meetings
	E-Waste Management			

Digital Strategy should reflect the organization's sustainability priorities and ambitions.

Who Matters?

Regulators / Policy Makers	Community	Employees	Students/ Customers	Partners & Collaborators	Suppliers / Vendors

What Matters?

Increased regulation, reporting and incentives	Increased focus on trust and transparency	Responsible resource and fuel use	Focus on developing sustainability as a driver of change	Greater focus on impact due to operations	Major reorientation of capital/ finance

Voluntary

Mandated (regulation)

What's your ambition?

Compliant — Basic

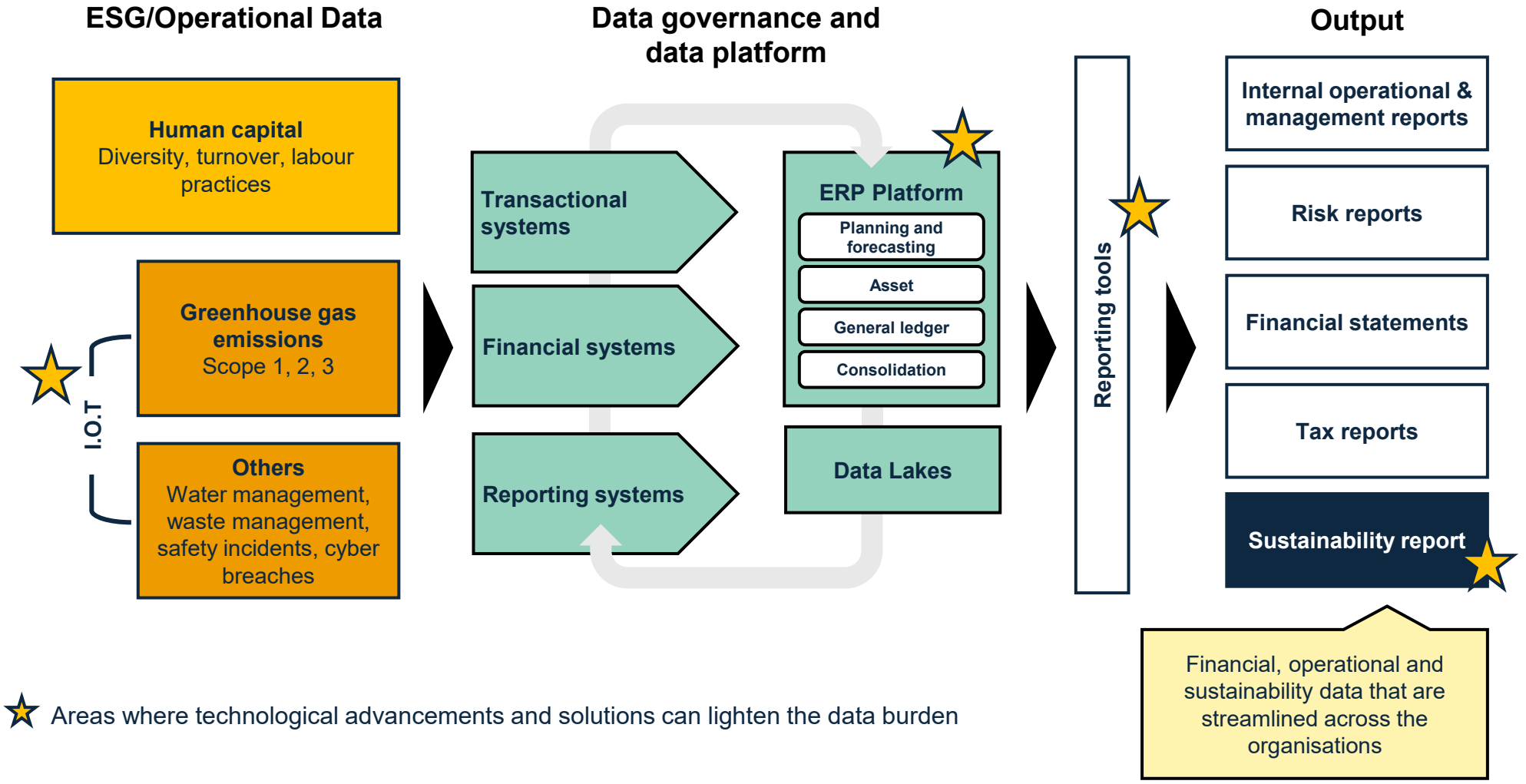
Strategic — Moderate

Transformative — Advanced

The Organization's Vision and Strategy

- Program/Change Management
- Governance & Risk
- Data & Technology(OT & IT)
- Operating Model (including Process & controls)
- Strategic Initiatives
- Reporting

How should companies leverage technological solutions to improve data collection for reporting?



Enterprise Digital Approach towards Decarbonisation

Stage A: 2-3 years

1. Achieve Sustainability *by* OT

IT can be the **driver** for making the entire **enterprise more sustainable** through **digitising** the business or providing information and transparency:

- IoT & Metering for Sustainability
- Process Improvements & Re-engineering
- Data Analytics, Dashboards & Scorecards

Stage B: 3-5 years

2. Achieve Sustainability *by* Digitalisation

Sustainability could be achieved through digitalisation by harnessing technologies like IoT, AI, and data analytics. These digital tools can be empowered to:

- Energy Management
- Data-Driven Decision Making
- Carbon Footprint Tracking & Reporting

Stage C: > 5 years

Achieve Sustainability across the Enterprise

One of today's biggest challenge is to optimise end-to-end supply chains. IT can be a driver and enabler to connect organisations and create sustainable value:

- Integrated Sustainability Platform
  - Procurement
  - Supply Chain
- Generative AI for decarbonisation
- Common Enterprise Platforms
- Climate Risk Monitoring

Strategy, Planning and Alignment with Net Zero

Drive Transformation across Enterprise through a central PMO- Decarb Foundry

Support Change Management across Departments

Align Leadership and Staff