



CSRD Data Digital Best Practice

TEKenable



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Intro



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Digital4Sustainability

Empowering the European Workforce for the sustainable digital transition



Co-funded by
the European Union

Digital4Sustainability

Empowering the European Workforce
for the Sustainable Digital Transition

Funded under the Erasmus+ programme as an Alliance
for Sectoral Cooperation on Skills



Co-funded by
the European Union

Shaping a Sustainable Digital Future



Driving innovation
in digital & sustainability
practices to boost Europe's
skills for the sustainable
digital transition



4-year EU funded project
(2024-2028)



29 members of the
Digital Large-Scale
Partnership under
the Pact for Skills
from 13 EU countries



Digital4Sustainability is dedicated to **accelerating the digital and green transitions** within the ICT sector and across European industries. Our mission is to develop and implement **innovative training programmes** that provide professionals and businesses with the skills and knowledge needed to thrive in a rapidly evolving landscape where digital technology and sustainability intersect.



Why this project?

Green and digital transitions, also referred to as **Twin Transition** (as they are closely linked and have the capacity to reinforce each other), are **top priorities of the EU agenda**.

The Twin Transition will transform the EU labour market and accelerate changes in **skills demand** as it is estimated to have the potential to **create around 1 million jobs by 2030**.¹

Digital4Sustainability will contribute to the **EU Digital Decade goal** of having **20 million employed ICT specialists by 2030** by training more than 1000 new ICT & Sustainability professionals.

Digital4Sustainability is fully aligned with the vision of **the European Education Area** and contributes to its objectives, especially the ones regarding the **development of digital skills**.

Project Roadmap



Current key markets include:

Ireland
and the **UK**



Founded in
2002
in **Dublin**
Ireland



Certifications

ISO9001,
ISO13485 (SaMD)
and ISO27001



Deloitte

Technology
Fast 50 Winner
"5 Years running"



Best Place to Work

Nov 23 – Nov 24
Ireland



IT Europa Channel Awards Winner



Partner

Microsoft Solutions
Azure Advanced Specialist, Data & AI and Business Applications



220+
employees.



Multiple business verticals
and formidable client base.





Sustainability Digital Transformation Best Practice

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TEKenable



Sustainability : A data challenge

1000 +

Data entities



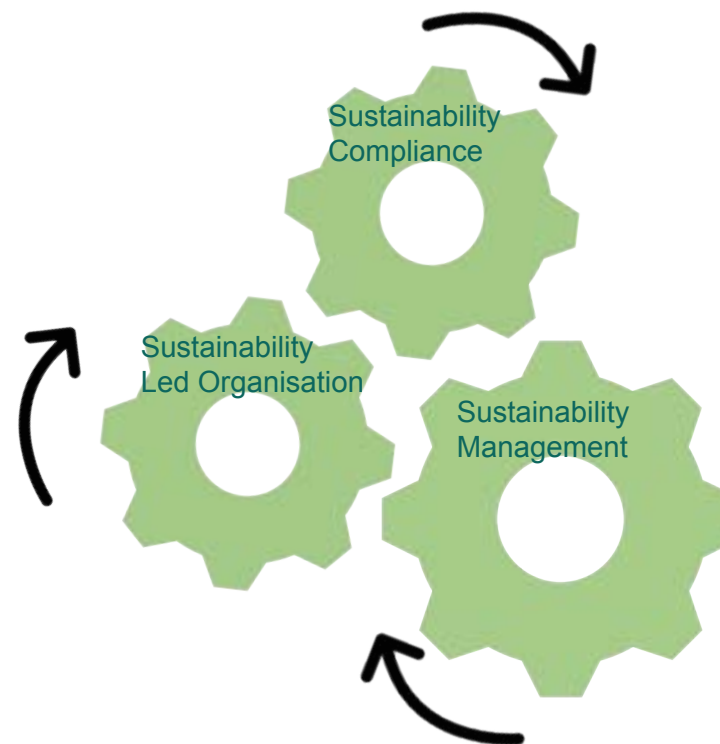
10+

Global Standards



50+

Business needs



What is Sustainability Digital Transformation?

"The future of Sustainability is not just about reporting, it's about **using data to drive business decisions.**"

- Mark Tulay, GreenBiz Group

"Sustainability data is not just about compliance, it's about **creating value for your stakeholders.**"

- Andrew Kassooy, B Labs

What Does Good Look Like?

Continuous improvement

Not an Event but a Journey

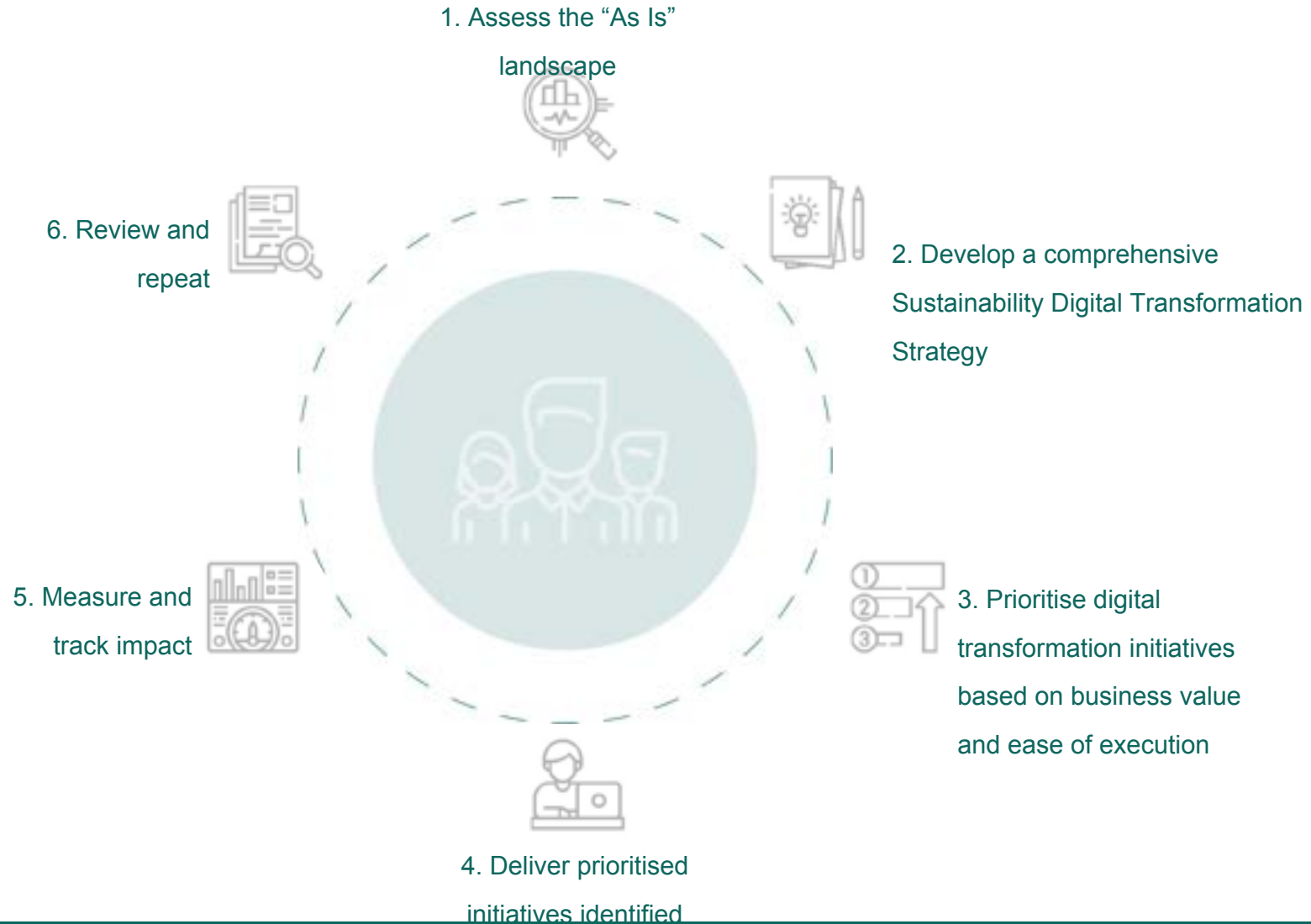
Not Linear but Circular

Drives Innovation and Differentiation

Customer, Context and Business Driven,
NOT Tech Driven, Tech supported

Sustainability Digital Transformation Approach

Measure, Record, Report and Repeat



Digital Transformation Approach

Data Gaps & Silos



Transform disparate data into
a **standards-driven**, cohesive, **analysis-
ready data set** to power **ESG use cases**

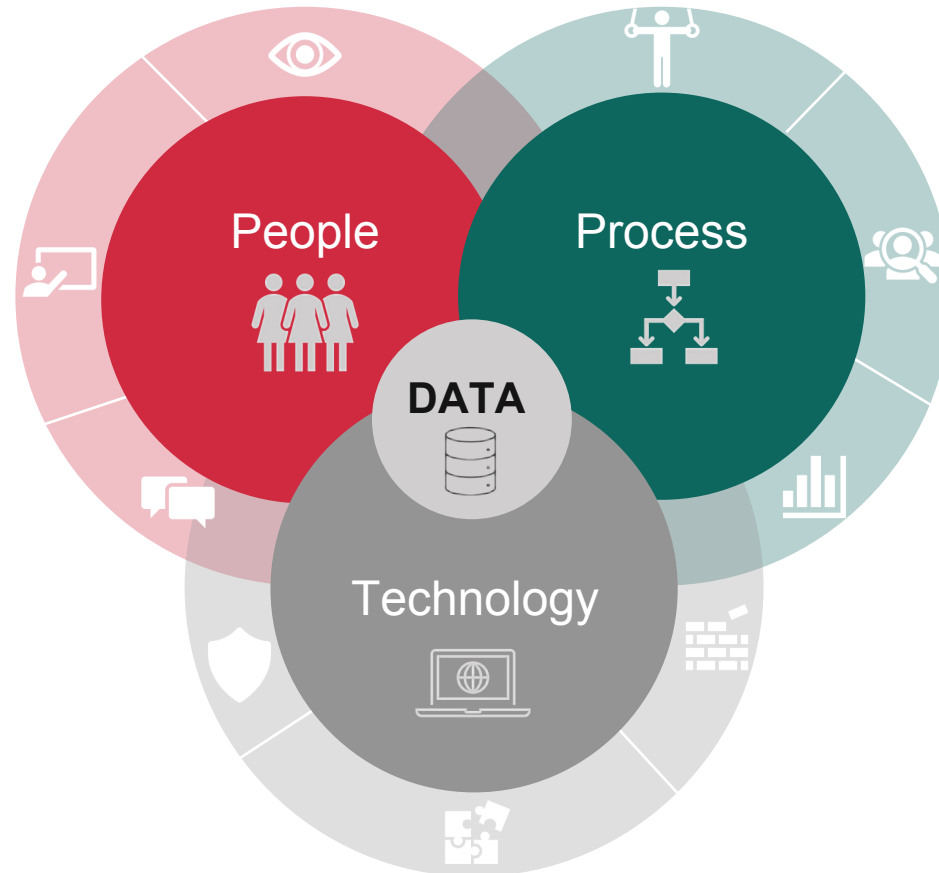


Calculated Emissions & Reporting



Sustainability Digital Transformation Enablers

The essential components of sustainable transformation.





Short Exercise – 20 minutes

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Exercise : Sustainability Digital Transformation

Step 1
Scan the QR code

Step 2
Read the questions and answer yes or no for your organisation

Step 2
Now all the boxes you ticked as a 'yes' have a score. Count your total score.

Scan the QR or use link to join



<https://forms.office.com/e/dgmmBHm49U>

 Copy link

of yes

>3	Aware
4-6	Reactive
7-10	Proactive
11 – 12	Sustainably driven



CSRD Scope and Categories

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What led us to CSRD? (Corporate Sustainability Reporting Directive)

The Race to Net Zero

Government Action

Regulatory Drivers

The European Green Deal was the catalyst that started the race to net zero, aiming to attain climate neutrality by 2050. The number of FTSE 100 companies vowing to achieve net zero emissions by 2050 grew by 37 percent (2021) to 82 percent (2022). Those that can't demonstrate tangible progress towards their net zero goals will be left behind.

Public and blended finance commitments mobilising 80 billion of climate finance for developing countries since 2019.

Regulators across the globe have been increasingly mandating ESG disclosures for publicly traded and large organizations. This impacts the whole value-chain

Mandatory reporting

- EU Taxonomy
- **Corporate Sustainability Reporting Directive (CSRD)**
- **Voluntary reporting**
- Task Force on Climate-Related Financial Disclosures (TCFD)

Global Standards

Mobilising Capital

Socially Conscious Investors

Disclosure and reporting increasingly in focus, with momentum growing for a global climate disclosure standard

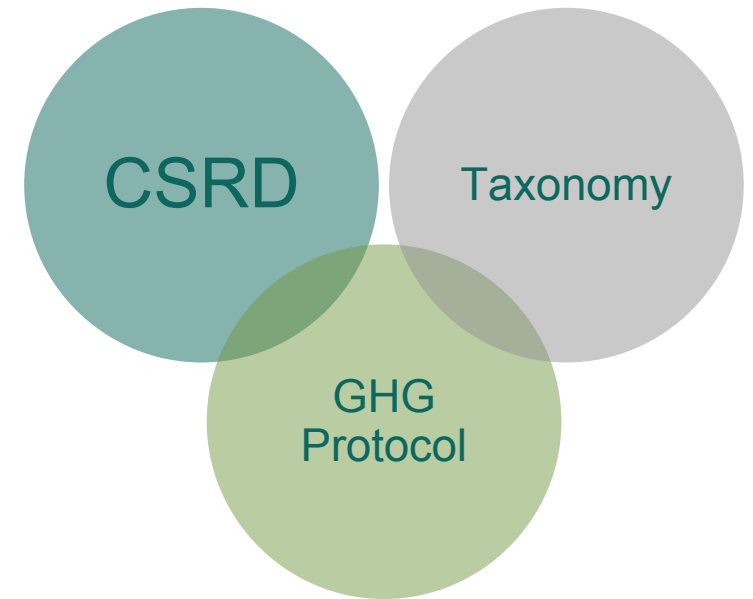
Companies/banks and governments have begun to take steps in their approach to financing green initiatives. This means that larger entities are leveraging their market position to encourage organisations down the value-chain to make positive choices. Rewarding and providing cheaper capital for green spending.

Socially responsible investing (SRI) is an investing strategy that aims to generate both social change and financial returns for an investor.

Alphabet soup of regulation – Data Overlap



Data overlap



CSRD Regulation

CSRD (Corporate Sustainability Reporting Directive)

When is CSRD applicable?

FY 2024 (Listed)
FY2025 (Non-Listed)
FY2027 (SME)

Which companies are in scope for CSRD?

Large companies

- ✓ >250 employees and/or
- ✓ >50M Turnover and/or
- ✓ >25M Total Assets

Listed companies

Note: Small and medium listed companies get an extra 3 years to comply
In addition, non-EU companies that have a turnover of above €150 million in the EU will also have to comply.

Where should companies be reporting to?

Inclusion in the annual management report

In what format should companies be reporting?

To be submitted in **electronic format** (in XHTML format in accordance with ESEF regulation)
“Limited third-party assurance,” (auditor will need to evaluate the data).

Sustainability reporting information will fall within the ambit of the directors report inclusive of the penalties associated.

Cross-Cutting	ESRS 1	General Requirements: Framework for overall sustainability reporting across all ESRS categories.	Social	ESRS S1	Own Workforce: Reporting on employee conditions, diversity, health, safety, and well-being.
	ESRS 2	General Disclosures: Core sustainability disclosures applicable to all organizations.		ESRS S2	Workers in the Value Chain: Reporting on fair treatment of contractors and workers across the supply chain.
Environmental	ESRS E1	Climate Change: Reporting on greenhouse gas emissions, mitigation, adaptation, and energy usage.	Governance	ESRS S3	Affected Communities: Reporting on community engagement, social impacts, and benefit-sharing practices.
	ESRS E2	Pollution: Reporting on pollutants affecting air, water, and soil, including measures to mitigate harm.		ESRS S4	Consumers and End-Users: Reporting on product/service safety, privacy, and consumer rights.
	ESRS E3	Water and Marine Resources: Reporting on water usage, marine ecosystem impact, and sustainable practices.		ESRS G1	Business Conduct: Reporting on governance practices, ethical conduct, anti-corruption, and transparency.
	ESRS E4	Biodiversity and Ecosystems: Reporting on biodiversity protection, deforestation, and land use impacts.			
	ESRS E5	Resource Use and Circular Economy: Reporting on raw material efficiency, recycling, and waste management.			

~1,200 Datapoints

- Not all relevant to everyone
- **Double materiality** test done to see which are relevant (~500-600 estimated)
- ~80% Quantitative Data Points (Narrative)
- ~20% Qualitative Data Points (Numerical, Percent, Monetary)



Types:

- *Mandatory*
- *Material (Depends on Double Materiality Assessment outcome)*
- *Non/Omittable*
- *Minimum Disclosure Requirement*



There are several key reporting requirements within the Standards, including interdependencies.

The CSRD standard require enhances reporting on ESG governance and risk. They expand beyond reporting on certain KPIs, and require detail on policies, actions, metrics and targets surrounding ESG topics.

- Policies
- Actions
- Targets
- Metrics



Data Sources / Types	Taxonomies	Security	Governance
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- Raw data : eg carbon emissions, gender, board members
- Scores/ratings: Provide ESG metrics for thousands of companies
- Big Data Aggregators: ESG sentiment analysis
- Risk assessment providers: ESG Risk modelling/scores

- Bringing together datasets never previously integrated
- Aligning taxonomies, classifications and measurements
- Lack of harmonization across jurisdiction

- In addition to perennial concerns like anticorruption, clean water and climate change, cyber security is rising to the top of the ESG agenda.

- Significant business risks from misreporting ESG and classification of funds
- ESG data governance and data quality critical
- A key challenge will be how to evidence transparency



Cost	Control	Compliance	Competitive Advantage
------	---------	------------	-----------------------

- Duplication: Current data needs are dealt with in silos, leading to duplicated costs
- Manual processes: common
- Market Data: Not fully disseminated across the firm leading to loss in value

- Inconsistency: Approaching data management and reporting in silos Data gaps

- Transparency: Regulators demand timely and transparent disclosure
- Taking an ESG approach to your cyber security reporting can promote digital trust in your organization.

- ESG leaders will gain market share: investors needs are changing and those leading in ESG space will have a competitive advantage





CSRD Digital Reporting

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Emissions Tracked in Excel

Scope 2 Emissions from Purchase of Electricity

EPA CENTER FOR CORPORATE CLIMATE LEADERSHIP
U.S. Environmental Protection Agency

Guidance

The Indirect Emissions from Purchased Electricity Guidance document provides guidance for quantifying two scope 2 emissions totals, using a **location-based method** and a **market-based method**. The organization should quantify and report both totals in its GHG inventory. The location-based method considers average emission factors for the electricity grids that provide electricity. The market-based method considers contractual arrangements under which the organization procures electricity from specific sources, such as renewable energy.

- (A) Enter total annual electricity purchased in kWh and each eGRID subregion for each facility or site in ORANGE cells of **Table 1**.
- (B) If electricity consumption data are not available for a facility, an estimate should be made for completeness. See the "Items to Note" section of the Help sheet for suggested estimation approaches.
- (C) Select "eGRID subregion" from drop box and enter "Electricity Purchased."
 - Use map (Figure 1) at bottom of sheet to determine appropriate eGRID subregion. If subregion cannot be determined from the map, find the correct subregion by entering the location's zip code into EPA's Power Profiler: <https://www.epa.gov/eGRID/power-profiler/>
- (D) See the market-based emission factor hierarchy on the market-based method Help sheet. If any of the first four types of emission factors are applicable, enter the factors in the yellow cells marked as "<enter factor>". If not, leave the yellow cells as is, and eGRID subregion factors will be used for market-based emissions.

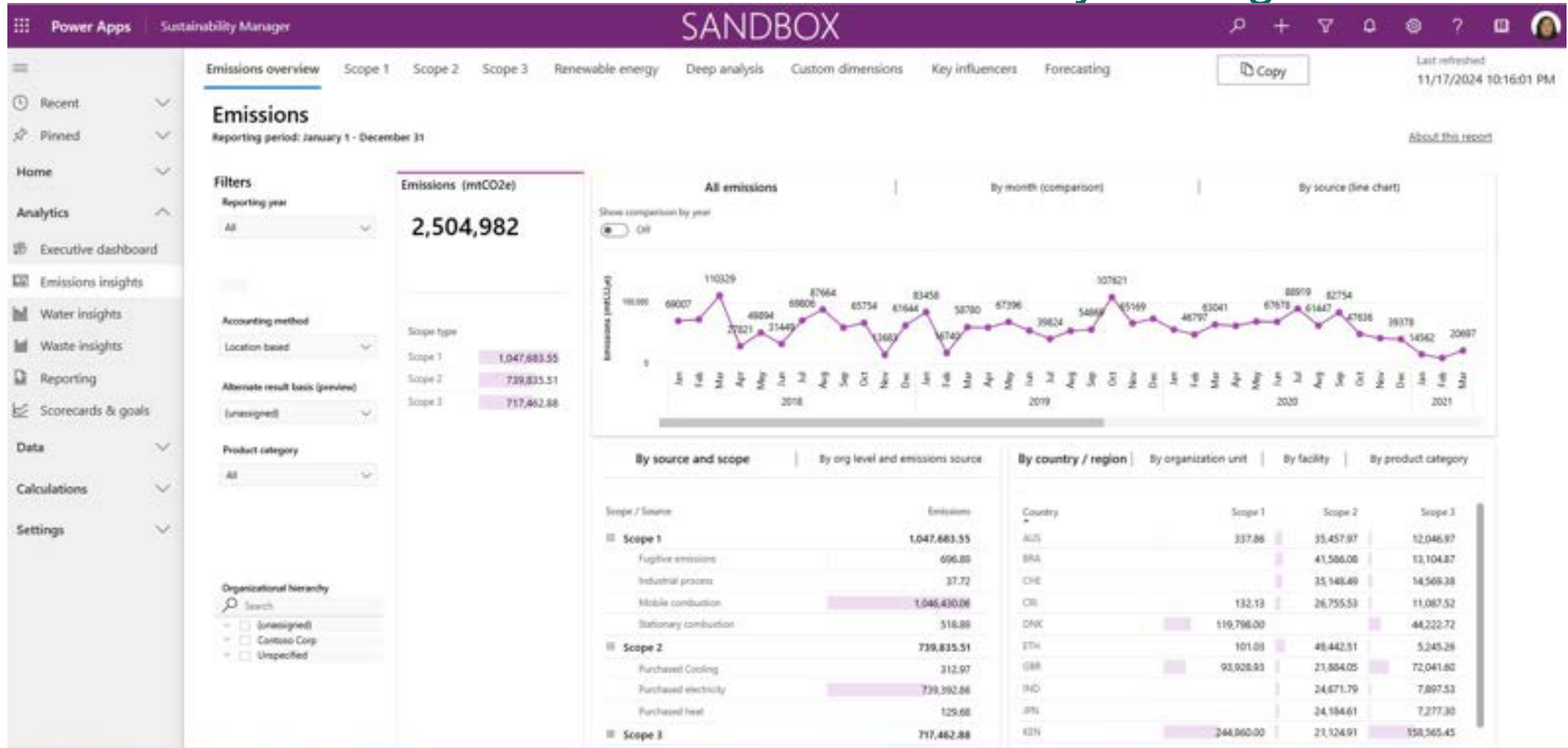
Example entry is shown in first row (*GREEN Italics*) for a facility that purchases RECs for 100% of its consumption, and therefore has a market-based emission factor of 0.

Tips: Enter electricity usage by location and then look up the eGRID subregion for each location. If you purchase renewable energy that is less than 100% of your site's electricity, see the example in the market-based method Help sheet.

Table 1. Total Amount of Electricity Purchased by eGRID Subregion

Source ID	Source Description	Source Area (sq ft)	eGRID Subregion where electricity is consumed	Electricity Purchased (kWh)	Market-Based						Location-Based		
					Emission Factors			Emissions			Emissions		
					CO ₂ Emissions (lb/MWh)	CH ₄ Emissions (lb/MWh)	N ₂ O Emissions (lb/MWh)	CO ₂ Emissions (lb)	CH ₄ Emissions (lb)	N ₂ O Emissions (lb)	CO ₂ Emissions (lb)	CH ₄ Emissions (lb)	N ₂ O Emissions (lb)
<i>00g-012</i>	<i>East Power Plant</i>	<i>12,517</i>	<i>HCC Miscellaneous</i>	<i>200,000</i>	0	0	0	0.0	0.0	0.0	231,097.2	24.8	3.8
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						
					<enter factor>	<enter factor>	<enter factor>						

Emissions Tracked in Sustainability Manager



Emissions Tracked in Sustainability Manager

← + New Delete Refresh Excel Templates Export to Excel Import from Excel Share

All factor libraries Edit columns Edit filters

<input type="checkbox"/>	Name ↑	Type	Library type	Version	Date published	Module	Description	Origin correlation ID
<input type="checkbox"/>	(Preview) Demo factor library for water...	Demo	Estimation fact...			Water	Demo data or ot...	
<input type="checkbox"/>	(Preview) Demo water intensity factor (L...	Demo	Estimation fact...			Water	Demo data or ot...	
<input type="checkbox"/>	Defra 2022 - Bioenergy	Standard	Emission factor ...		2022	Carbon activities	Factors for the co...	
<input type="checkbox"/>	Defra 2022 - Business travel - air	Standard	Emission factor ...		2022	Carbon activities		
<input type="checkbox"/>	Defra 2022 - Business travel - land	Standard	Emission factor ...		2022	Carbon activities		
<input type="checkbox"/>	Defra 2022 - Business travel - sea	Standard	Emission factor ...		2022	Carbon activities		
<input type="checkbox"/>	Defra 2022 - Freightng goods	Standard	Emission factor ...		2022	Carbon activities		
<input type="checkbox"/>	Defra 2022 - Fuels	Standard	Emission factor ...		2022	Carbon activities	Factors to be use...	
<input type="checkbox"/>	Defra 2022 - Homeworking	Standard	Emission factor ...		2022	Carbon activities		
<input type="checkbox"/>	Defra 2022 - Hotel stay	Standard	Emission factor ...		2022	Carbon activities		
<input type="checkbox"/>	Defra 2022 - Outside of scopes	Standard	Emission factor ...		2022	Carbon activities		
<input type="checkbox"/>	Defra 2022 - Passenger Vehicles	Standard	Emission factor ...		2022	Carbon activities	Factors for travel ...	

Rows: 61

Example of a CSRD Report – Excel

INSTRUCTIONS

- 1) The DPs reported in ESRS E2 are subject to Materiality Assessment.
- 2) With the exception of DPs in IRO1 (E2.IRO-1_01-03) that are to be disclosed irrespective of the outcome of its materiality assessment [ESRS 1 par. 29], none of these DPs is applicable if the topic is not material.
- 3) Not all DPs are to be reported if the undertaking has not adopted the respective policies, implemented the respective actions or set the respective targets in relation to a sustainability matter that has been assessed to be material [see ESRS 1 par. 33].
- 4) Column L identifies DPs subject to phased-in [see Appendix C of ESRS 1].
- 5) Metrics to be disclosed, in addition to the ones explicitly required by ESRS, also include entity-specific ones, as well as those arising from other legislation or standard.

ID	ESRS	DR	Paragraph	Related AR	Name	Data Type	Conditional or alternative DP	May [V]	Appendix B - ESRS 2 (SFDR - PILLAR 3 + Benchmark + CL)	Appendix C - ESRS 1 DPs subject to phasing-in provisions applicable to undertakings with less than 750 employees	Appendix C - ESRS 1 DPs subject to phasing-in provisions applicable to all undertakings
E2.IRO-1.01	E2	E2.IRO-1	11 a	AR 1, AR 8	Information about the process to identify actual and potential pollution-related impacts, risks and opportunities	narrative					
E2.IRO-1.02	E2	E2.IRO-1	11 b		Disclosure of whether and how consultations have been conducted (pollution)	narrative					
E2.IRO-1.03	E2	E2.IRO-1	AR 9		Disclosure of results of materiality assessment (pollution)	narrative					
E2-1.01	E2	E2-1	15 a	AR 11	Disclosure of whether and how policy addresses mitigating negative impacts related to pollution of air, water and soil	narrative					
E2-1.02	E2	E2-1	15 b	AR 11	Disclosure of whether and how policy addresses substituting and minimising use of substances of concern	narrative					
E2-1.03	E2	E2-1	15 c		Disclosure of whether and how policy addresses avoiding incidents and emergency situations, and if and how	narrative					
E2-1.04	E2	E2-1	AR 12		Disclosure of contextual information on relations between policies implemented and how policies contribute to the transition	narrative		V			
E2-2.01	E2	E2-2	18		Level in mitigation hierarchy to which action can be allocated to (pollution)	semi-narrative		V			
E2-2.02	E2	E2-2	AR 13		Action related to pollution extends to upstream/downstream value chain engagements	semi-narrative		V			
E2-2.03	E2	E2-2	19	AR 14	Level in mitigation hierarchy to which resources can be allocated to (pollution)	semi-narrative		V			
E2-2.04	E2	E2-2	AR 15		Information about action plans that have been implemented at site-level (pollution)	narrative	Conditional	V			
E2-3.01	E2	E2-3	23 a		Disclosure of whether and how target relates to prevention and control of air pollutants and respective ap	narrative					
E2-3.02	E2	E2-3	23 b		Disclosure of whether and how target relates to prevention and control of emissions to water and respective	narrative					
E2-3.03	E2	E2-3	23 c		Disclosure of whether and how target relates to prevention and control of pollution to soil and respective s	narrative					
E2-3.04	E2	E2-3	23 d		Disclosure of whether and how target relates to prevention and control of substances of concern and sub	narrative					
E2-3.05	E2	E2-3	24	AR 16	Ecological thresholds and entity-specific allocations were taken into consideration when setting pollution	semi-narrative		V			
E2-3.06	E2	E2-3	24 a	AR 16	Disclosure of ecological thresholds identified and methodology used to identify ecological thresholds (po	narrative	Conditional	V			
E2-3.07	E2	E2-3	24 b	AR 16	Disclosure of how ecological entity-specific thresholds were determined (pollution)	narrative	Conditional	V			
E2-3.08	E2	E2-3	24 c	AR 16	Disclosure of how responsibility for respecting identified ecological thresholds is allocated (pollution)	narrative	Conditional	V			
E2-3.09	E2	E2-3	25		Pollution-related target is mandatory (required by legislation) / voluntary	semi-narrative					

The Power of Digital CSRD Reporting: A Clear Advantage

The screenshot displays the Microsoft Purview Compliance Manager interface for the Corporate Sustainability Reporting Directive (CSRD). The breadcrumb trail is: Compliance Manager > Regulations > Corporate Sustainability Reporting Directive (CSRD). The main heading is 'Corporate Sustainability Reporting Directive (CSRD)'. Below this, there are tabs for 'Controls', 'Your improvement actions', and 'Microsoft actions'. A search bar indicates '126 items'. A filter dropdown is set to 'Control family: Any'. The main content area shows a table of controls.

Control title	Control ID	Achievable points	Improvement actions	Microsoft actions
E1 Climate change (15)				
Actions and resources in relation to climate chang...	E1-3	25	9	0
Actions and resources in relation to material sustal...	E1.MDR-A	3	1	0
Anticipated financial effects from material physical...	E1-9	112	44	0
Description of the processes to identify and assess...	E1.MD-1	48	16	0
Energy consumption and mix	E1-5	65	23	0

Example of a Digital CSRD Report

Microsoft Purview

Compliance Manager > Assessments > CSRD_1March_test > Gross Scopes 1, 2, 3 and Total GHG emissions > E1-6-41-d

E1-6-41-d

Owner: Assign owner | Implementation status: Not Implemented | Test status: None | Service: Corporate Sustainability | Testing type: Manual | Testing source: User verified

Details | Evidence | Related controls

About this section
 The undertaking shall disclose its: (d) total GHG emissions. Total GHG emissions as required by paragraph 41(d) is to provide an overall understanding of the undertaking's GHG emissions and whether they occur from its own operations or the value chain. This disclosure is a prerequisite for measuring progress towards reducing GHG emissions in accordance with the undertaking's climate-related targets and EU policy goals.

Disclosure data

Last updated	Current reporting year	Organizational unit
01/03/2024 07:14 AM	2023	Contoso EUR

Data (3 items)

Reporting year	Total GHG emissions location-based (mtCO2e)	Total GHG emissions market-based (mtCO2e)
2023	3022.0403363600008	3022.0403363600008
2022	30414.330215579993	30405.566528499993
2021	18708.454793000008	18806.481011000006

Example of a Digital CSRD Report

The screenshot displays the Microsoft Purview Compliance Manager interface. The breadcrumb trail at the top reads: Compliance Manager > Regulations > Corporate Sustainability Reporting Directive (CSRD) > Gross Scopes 1, 2, 3 and Total GHG emissions > E1-6_07. The main content area features a large circular icon with the letter 'E' and the identifier 'E1-6_07'. Below this, there are two tabs: 'Implementation' (selected) and 'Related controls'. Under the 'Implementation' tab, the 'How to implement' section is visible, containing the following text: 'Name: Gross Scope 1 greenhouse gas emissions' and 'Description: The disclosure on gross Scope 1 GHG emissions required by paragraph 44 (a) shall include: (a) the gross Scope 1 GHG emissions in metric tonnes of CO2eq'. On the left side of the interface, a navigation pane lists various compliance-related options such as Home, Compliance Manager, Data classification, Data connectors, AI Hub (preview), Alerts, Policies, Roles & scopes, Trials, Solutions, Catalog, App governance, Audit, Content search, Communication compliance, and Data loss prevention.



CSRD Tools

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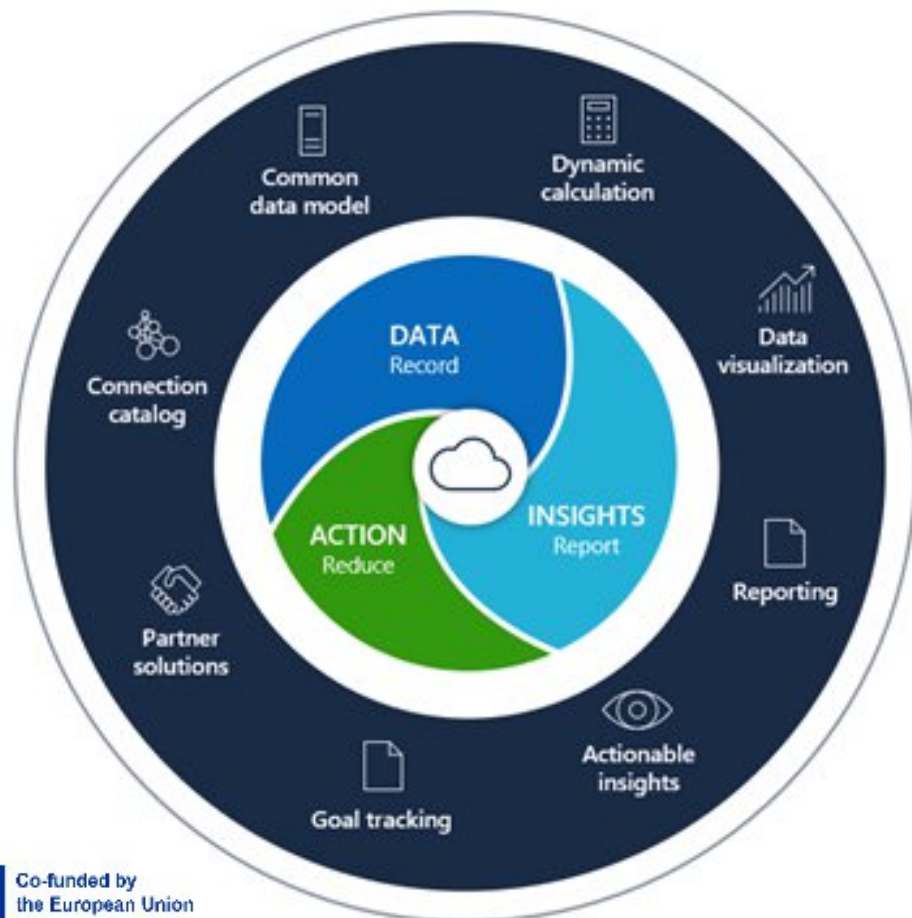
TEKenable



A unified SaaS-based solution that stores all organisational data where analytics workloads operate



Sustainability Digital Transformation Tools



Microsoft Fabric Sustainability

Ingest, harmonize, and process disparate data for specific sustainability scenarios.

Responsible Sourcing ERP - Continia

Track and report carbon emissions directly within Business Central

Microsoft Sustainability Manager

Record/Calculate & Report Emissions, Water & Waste

Purview Compliance Manager

CSRD Template



Demo - Fabric Sustainability

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Closing remarks

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Participants Survey

https://ec.europa.eu/eusurvey/runner/Evaluation_Pilot_Participants_Digital_SME

THANK YOU !

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