European DIGITAL SME Alliance

TEKenable

Urgent Up-Skilling

CSRD Data Readiness Training

Co-funded by the European Union

Digital 4 Sustainability

Urgent Up-Skilling

European DIGITAL SME Alliance

TEKenable

CSRD Data Readiness Training

Empowering the European Workforce for the sustainable digital transition

Co-funded by the European Union

Urgent Up-Skilling

This course is provided by:

European DIGITAL SME Alliance

TEKenable

January, 2025

Agenda

1. Introduction
2. Sustainability Digital Transformation Best Practice
3. CSRD Overview
4. Practical Exercise
5. CSRD Scope and Categories
6. CSRD Tools
7. Demo Fabric Sustainability
8. Closing

Co-funded by the European Union

Meet the speaker

Sophie Franceschini

Project Manager

Digital SME

Meet the speaker

Mukesh Yadav

Senior Data Engineer

TEKenable

Meet the speaker

Ashleigh Connors

ESG Consult

TEKenable

Shaping a Sustanable Digital Future

Driving innovation 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.

Co-funded by the European Union

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 labor market and accelerate changes in **skills demands** it is estimated to have the potential to **create around 1 million jobs by 2030**.

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.

Co-funded by the European Union

Project Roadmap

2024

- Occupational Profiles & Needs Analyses

2025

- Digital Sustainability Skills Strategy

2026

- Educational Profiles, Accreditaion Criteria, Certification Framework

2027+

- Learning Programmes Piloting & Reporting

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

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

Microsoft Solutions Partner

Digital & App Innovation Azure
Data & AI Azure
Business Applications

IT Europa
Channel Awards
Winner

IT EUROPA CHANNEL AWARDS 2022 WINNER
Application Developer & ISV'S Innovating Technology Solution of the Year

220+
employees.

Multiple business verticals
and formidable client base.

Sustainability Digital Transformation Best Practice

Ashleigh Connors

ESG Consultant

TEKENABLE

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

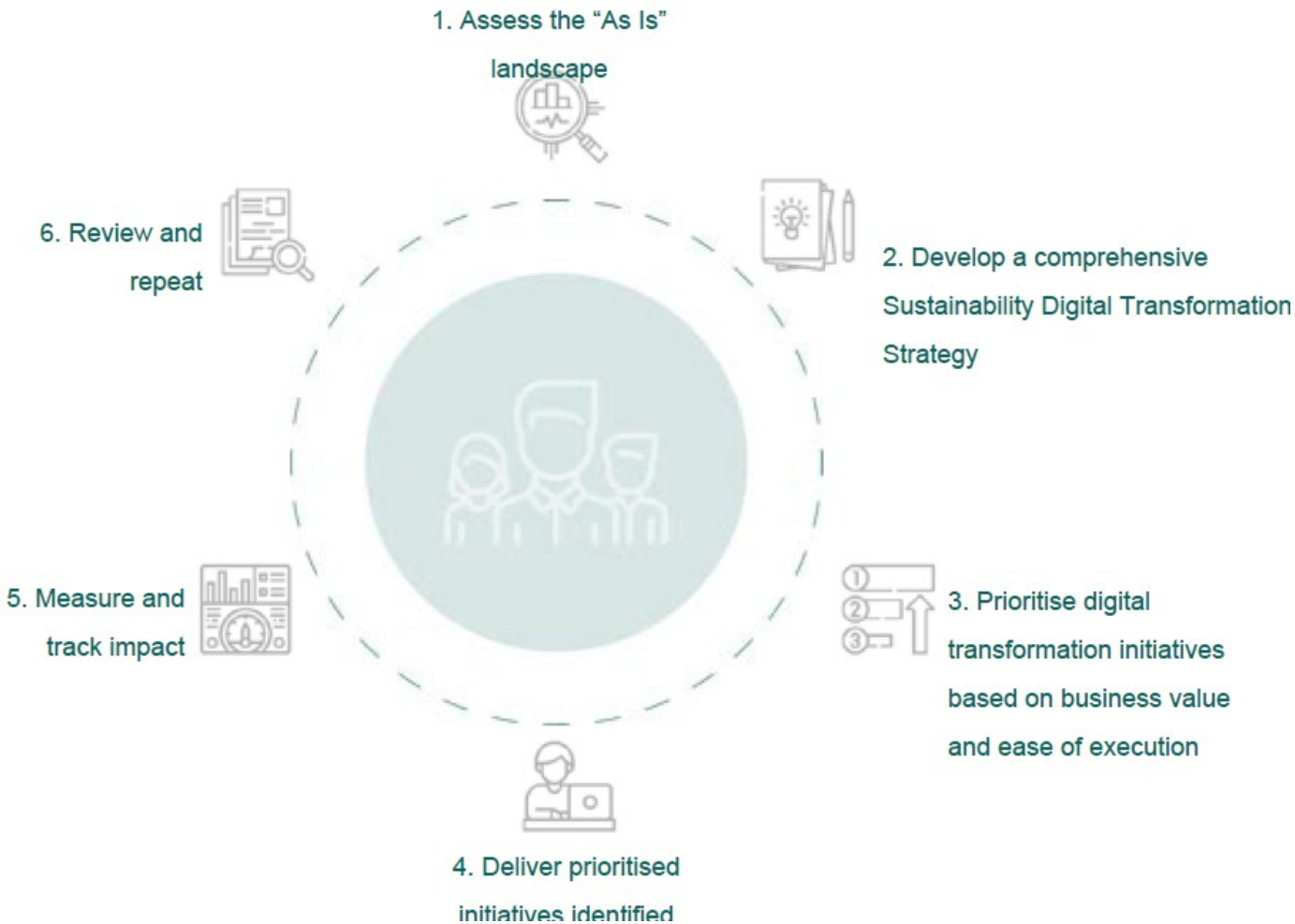
“Sustainability data is not just about compliance, it's about **creating value for your stakeholders.”**

- Andrew Kassoy, 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

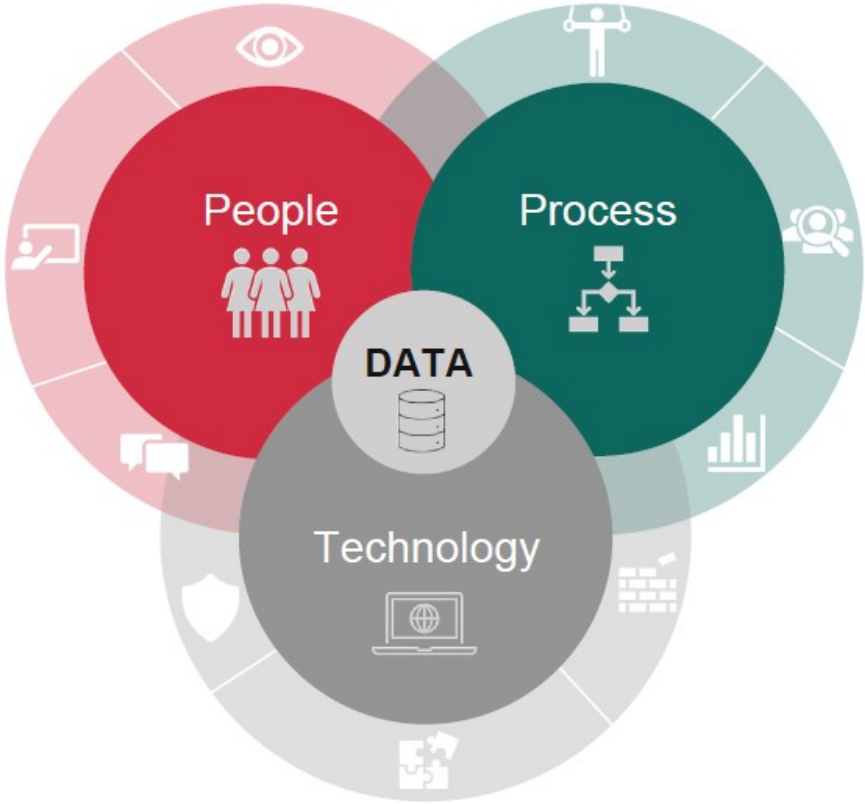
Data Gaps & Silos

*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

Ashleigh Connors

ESG Consultant

TEKENABLE

TEKenable

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 you

Scan the QR or use link to join

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

Copy link

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

Co-funded by the European Union

CSRD Scope and Categories

Ashleigh Connors

ESG Consultant

TEKENABLE

TEKenable

Co-funded by the European Union

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

The Race to Net Zero

Government Action

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 mobilizing 80 billion of climate finance for developing countries since 2019.

Regulatory Drivers

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

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

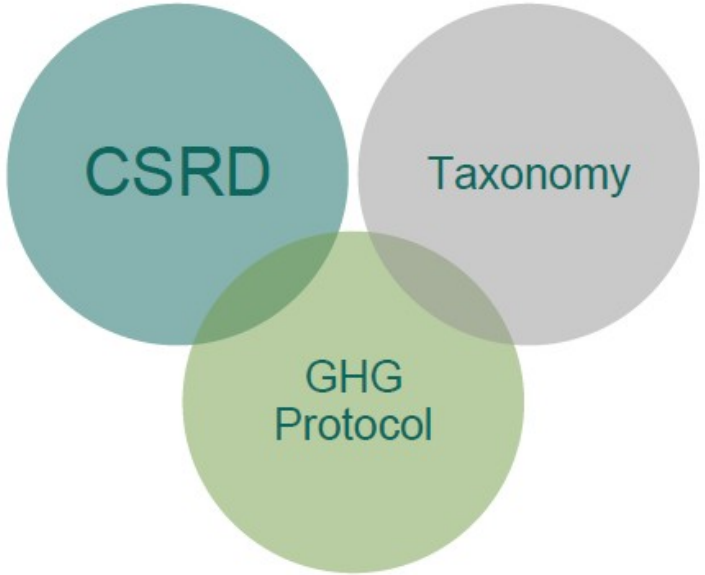
Mobilising Capital

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 organizations down the value-chain to make positive choices. Rewarding and providing cheaper capital for green spending.

Socially Conscious Investors

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



CSRD Regulation

	CSRD (Corporate Sustainability Reporting Directive)
When is CSRD applicable?	FY 2024 (Listed) FY2025 (Non-Listed) **FY2027 (SME)** Which companies
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.

CSRD Regulation – ESRS Categories

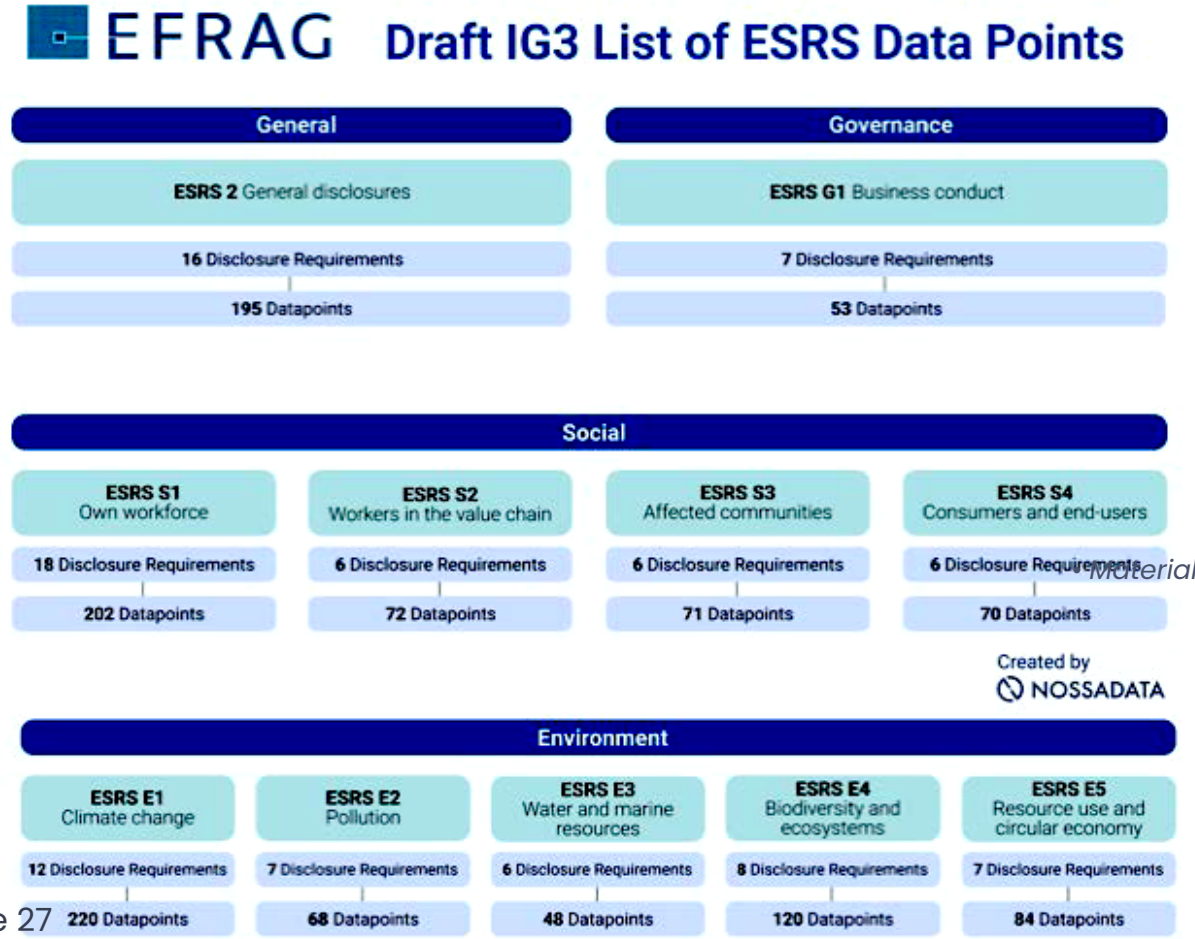
Cross-Cutting		**Social**	
ESRS 1	General Requirements: Framework for overall sustainability reporting across all ESRS categories.neral Requirements: Framework for overall sustainability reporting across all ESRS categories	ESRS S1	Own Workforce: Reporting on employee conditions, diversity, health, safety, and wellbeing.
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 S3	Affected Communities: Reporting on community engagement, social impacts, and benefit-sharing practices.
ESRS E1	Climate Change: Reporting on greenhouse gas emissions, mitigation, adaptation, and energy usage.	ESRS S4	Consumers and End-Users: Reporting on product/service safety, privacy, and consumer rights.
ESRS E2	Pollution: Reporting on pollutants affecting air, water, and soil, including measures to mitigate harm.	**Governance**	
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		

Exercise : Sustainability Digital Transformation

~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*

Reporting Requirements

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

CSRD Reporting Challenges, Risks and Opportunities




Data Sources / Types	Taxonomies	Security	Governance
• 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

Risks

Opportunities

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

Ashleigh Connors

ESG Consultant

TEKENABLE

TEKenable

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.

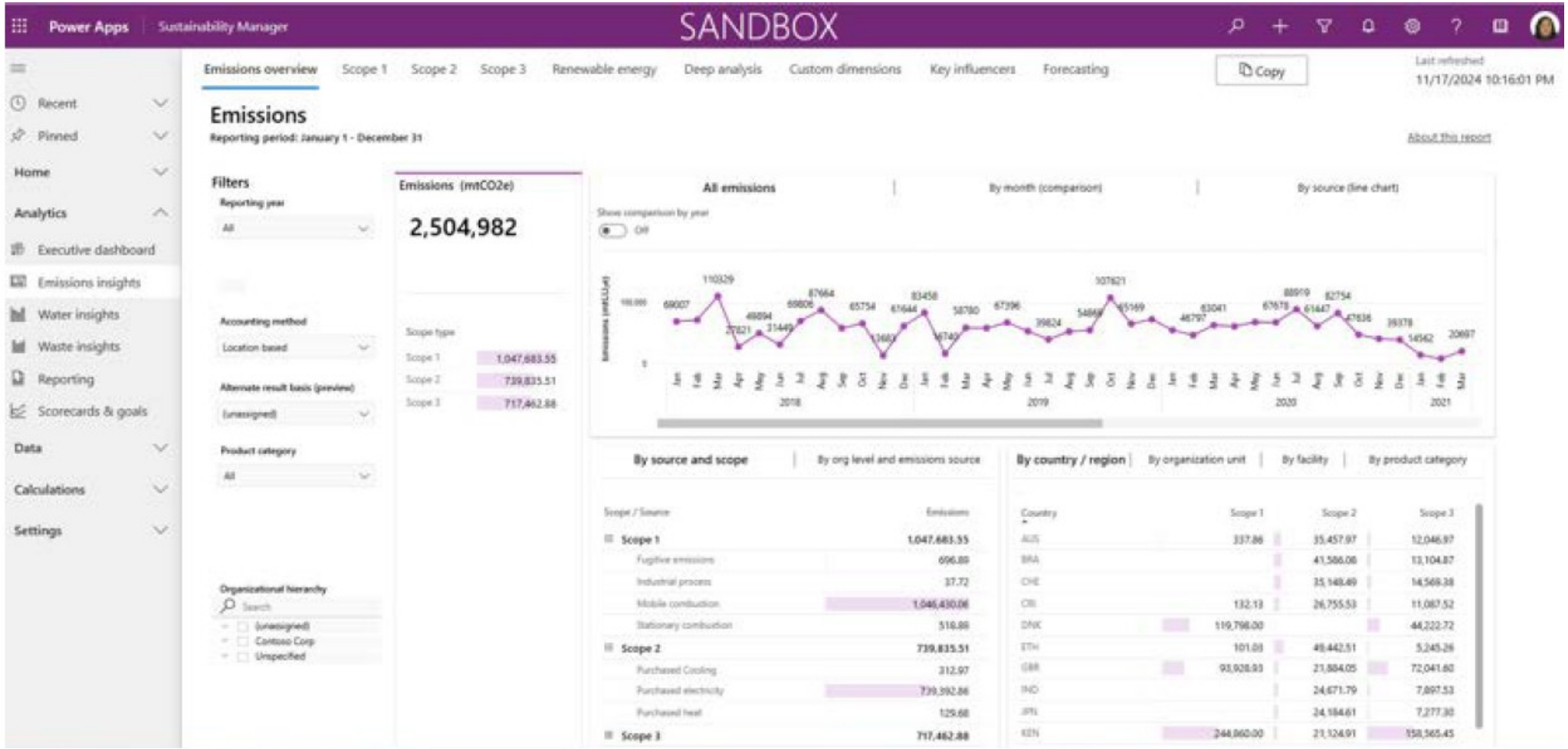
Tips: Enter electricity usage by location and then look up the eGRID subregion for each location. If you purchase renewable energy that is less than 100% of your site's electricity, see the example in the market-based method Help sheet.

Table 1. Total Amount of Electricity Purchased by eGRID Subregion

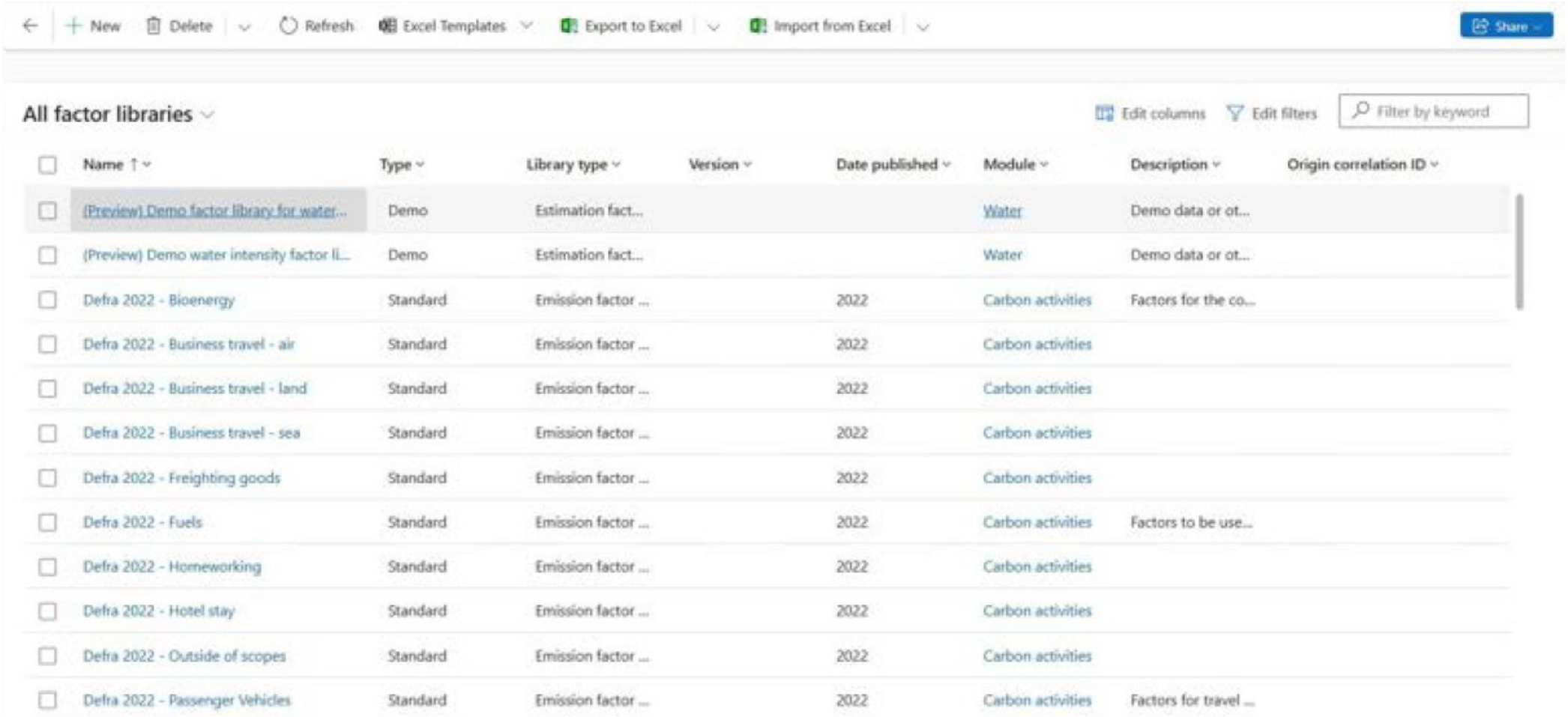
					Market-Based (*Use these cells to enter applicable market-based emission factors*)						Location-Based		
					Emission Factors			Emissions			Emissions		
Source ID	Source Description	Source Area (sq ft)	eGRID Subregion *where electricity is consumed*	Electricity Purchased (kWh)	CO_2 Emissions (lb/MWh)	CH_4 Emissions (lb/MWh)	N_2O Emissions (lb/MWh)	CO_2 Emissions (lb)	CH_4 Emissions (lb)	N_2O Emissions (lb)	CO_2 Emissions (lb)	CH_4 Emissions (lb)	N_2O Emissions (lb)
Bldg-012	*East Power Plant*	*12,517*	*HICC Miscellaneous*	*200,000*	*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>						

Fire Suppression | Purchased Gases | **Electricity** | Steam | Business Travel | Commuting | Upstream Trans and Dist | Waste | Offsets

Emissions Tracked in Sustainability Manager



Emissions Tracked in Sustainability Manager



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

Example of a CSRD Report – Excel

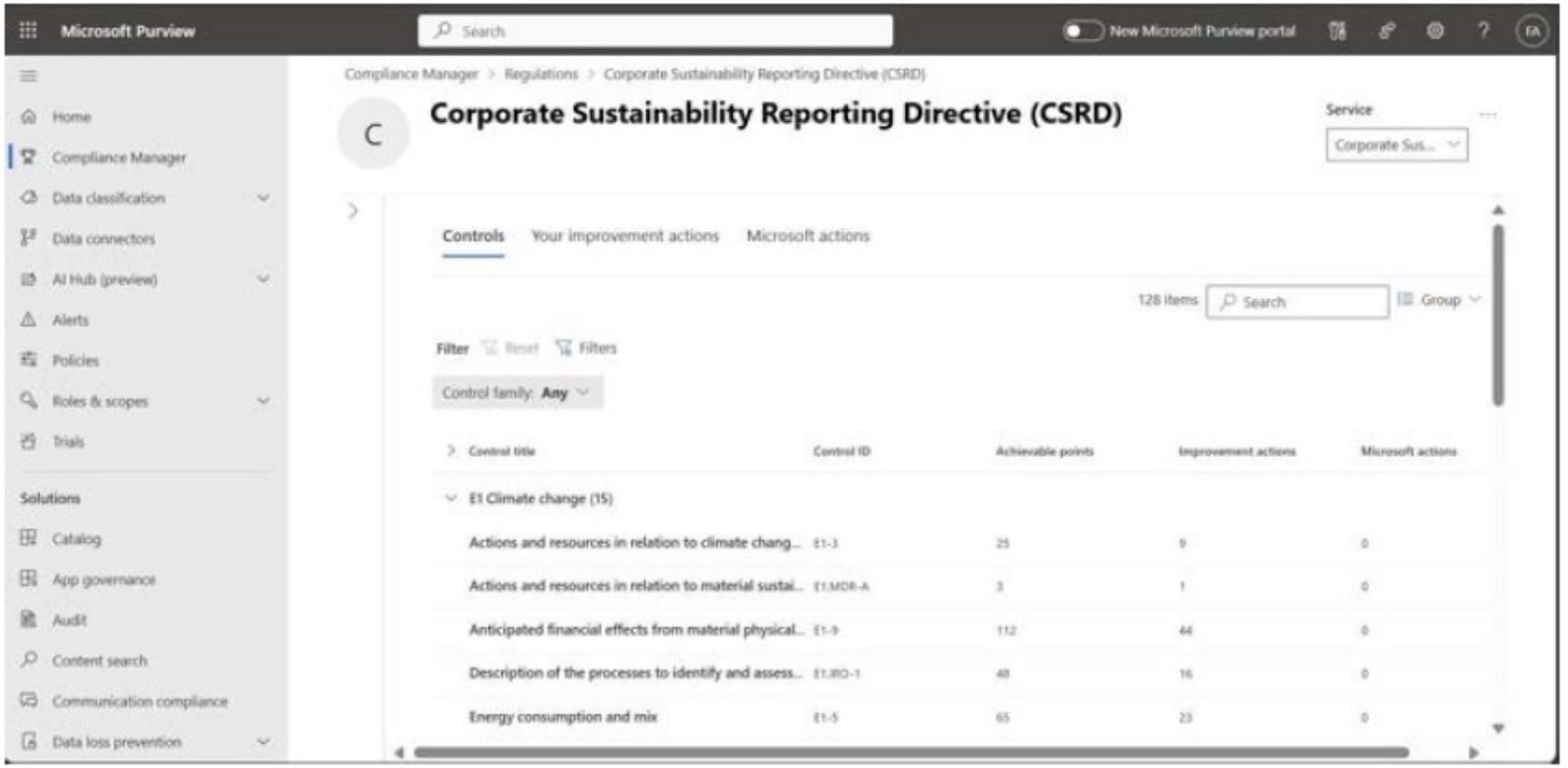
INSTRUCTIONS

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 requried by ESRS, also include entity-specific ones, as well as those arising from other legislation or standard.

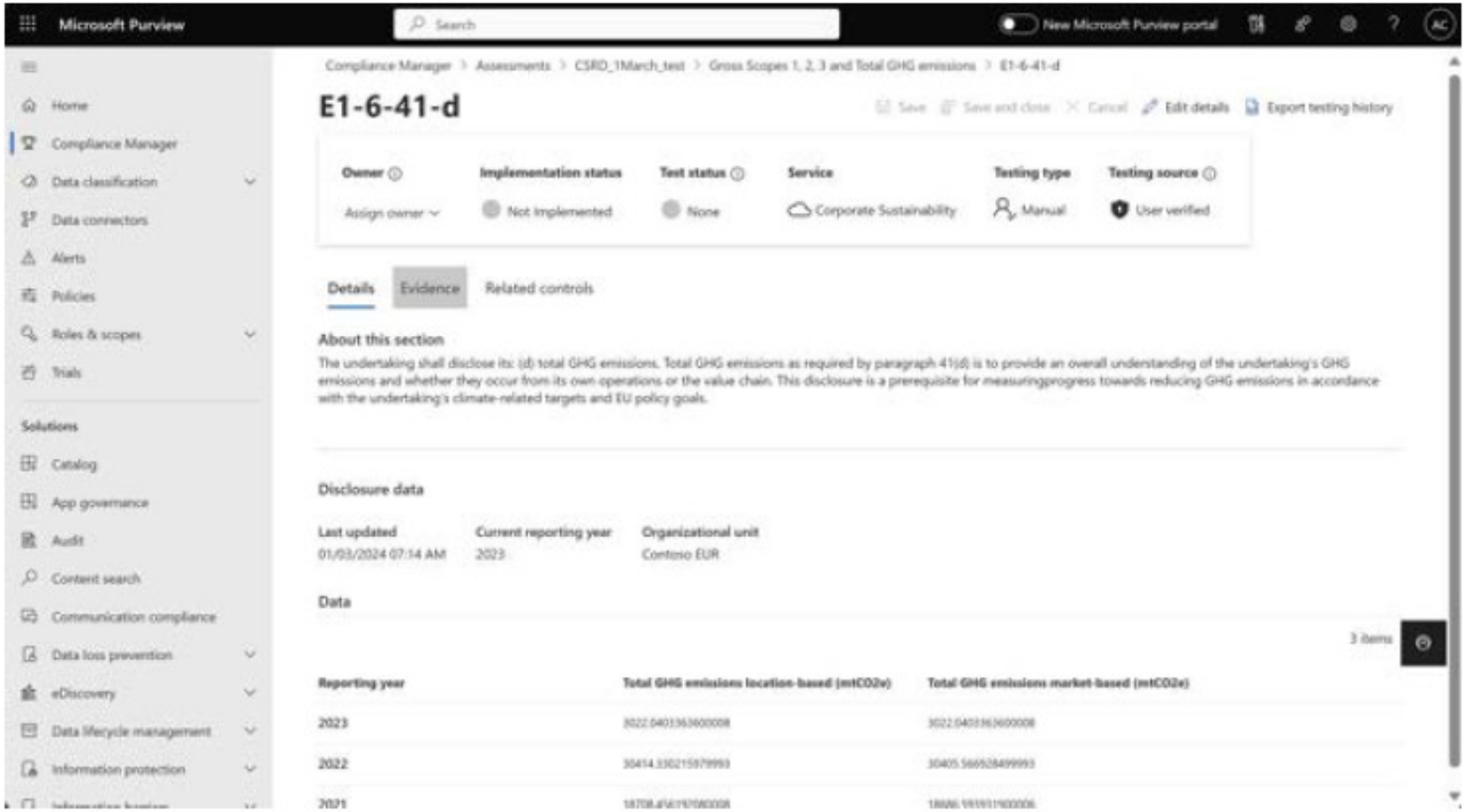
ID	ESRS	DR	Paragraph	Related AR	Name	Data Type	Conditional or alternative DP	May (V)	Appendix B - ESRS 2 (SFDR + PILLAR 3 + Benchmark + CL)	Appendix C - ESRS 1 DPs subject to phasing-in provisions applicable to undertaking with less than 750 employees	Appendix C - ESRS 1 DPs subject to phasing-in provisions applicable to all undertakings
E2.IRO-1_01	E2	E2.IRO-1	11 a	AR 3; AR 9	Information about the process to identify actual and potential pollution-related impacts, risks and opportun	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	16 a	AR 11	Disclosure of whether and how policy addresses mitigating negative impacts related to pollution of air, wat	narrative					
E2-1_02	E2	E2-1	16 b	AR 11	Disclosure of whether and how policy addresses substituting and minimising use of substances of conce	narrative					
E2-1_03	E2	E2-1	16 c		Disclosure of whether and how policy addresses avoiding incidents and emergency situations, and if and	narrative					
E2-1_04	E2	E2-1	AR 12		Disclosure of contextual information on relations between policies implemented and how policies contribut	narrative		V			
E2-2_01	E2	E2-2	19		Layer 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					
E2-2_03	E2	E2-2	19	AR 14	Layer 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 spe	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 respectiv	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 r	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 (poll	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					

Index | ESRS 2 | ESRS 2 MDR | ESRS E1 | ESRS E2 | ESRS E3 | ESRS E4 | ESRS E5 | ESRS S1 | ESRS S2 | ESRS ...

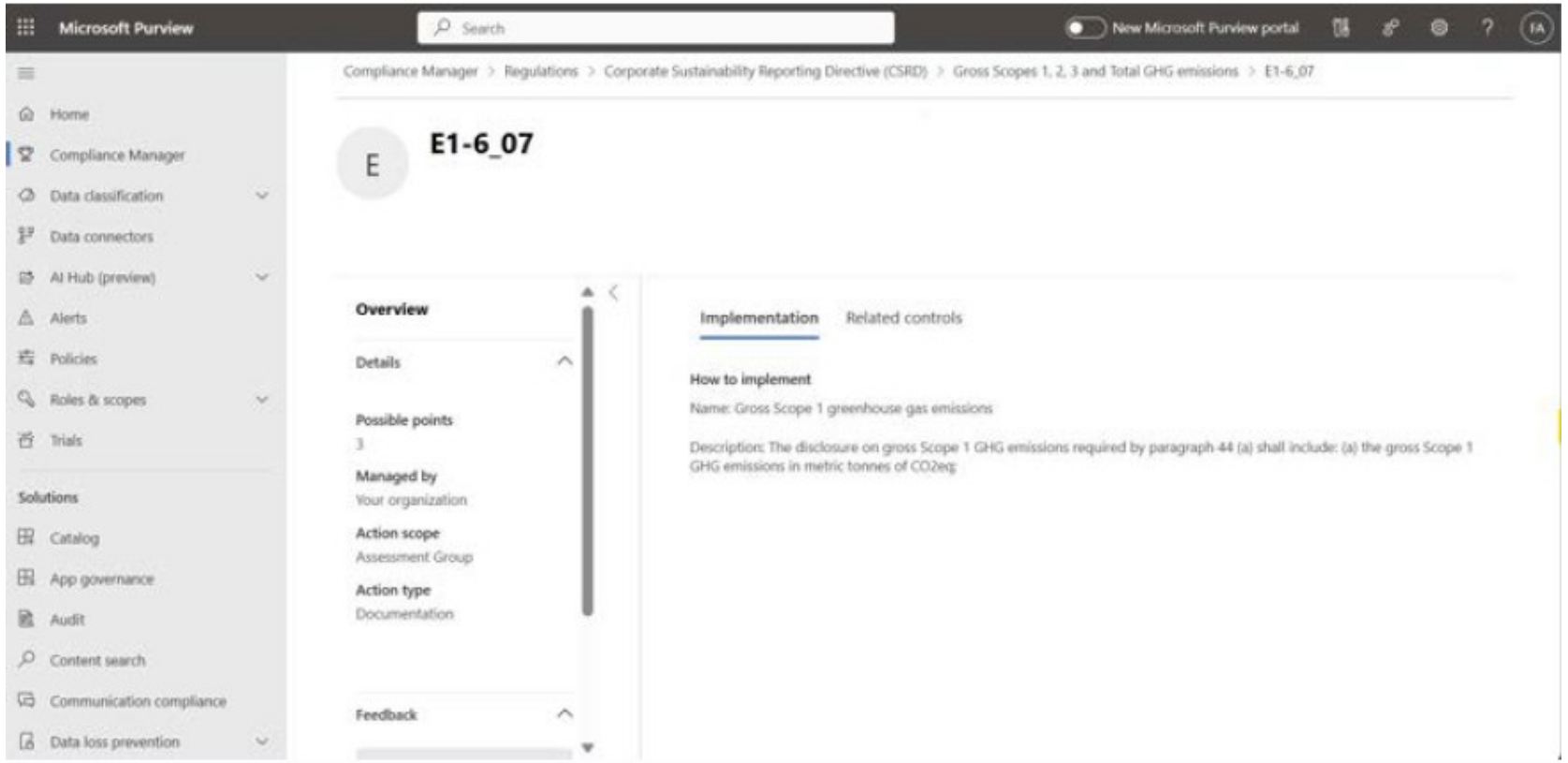
The Power of Digital CSRD Reporting: A Clear Advantage



Example of a Digital CSRD Report



Example of a Digital CSRD Report



CSRD Tools

Mukesh Yadav

Senior Data Engineer

TEKENABLE

TEKenable

A unified SaaS-based solution that stores all organizational 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

Mukesh Yadav

Senior Data Engineer

TEKENABLE

TEKenable

Closing remarks

Participants Survey

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

Follow us for regular updates

- Website: www.digital4sustainability.eu
- LinkedIn: @Digital4Sustainability
- Subscribe to our Newsletter

Thank you for your time

Disclaimer

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

Co-funded by the European Union