

People, Culture and Skills: Drivers of Digital & Green Transformation

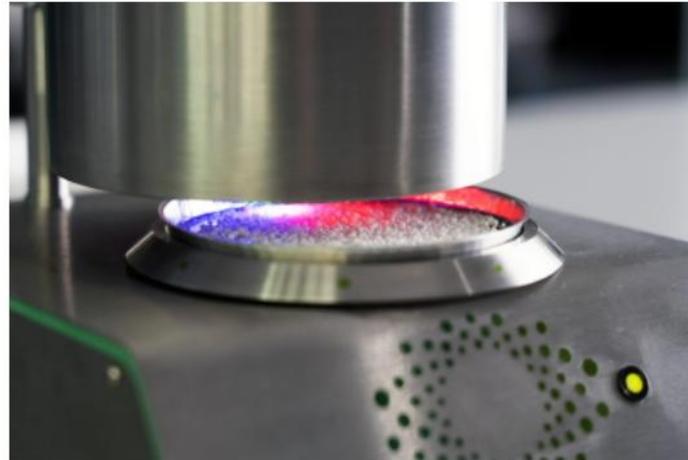
Gareth Clarke PhD
InnoGlobal
27 February 2026

• • • • •
About InnoGlobal





Technology, Tools and Training for Smart Manufacturing

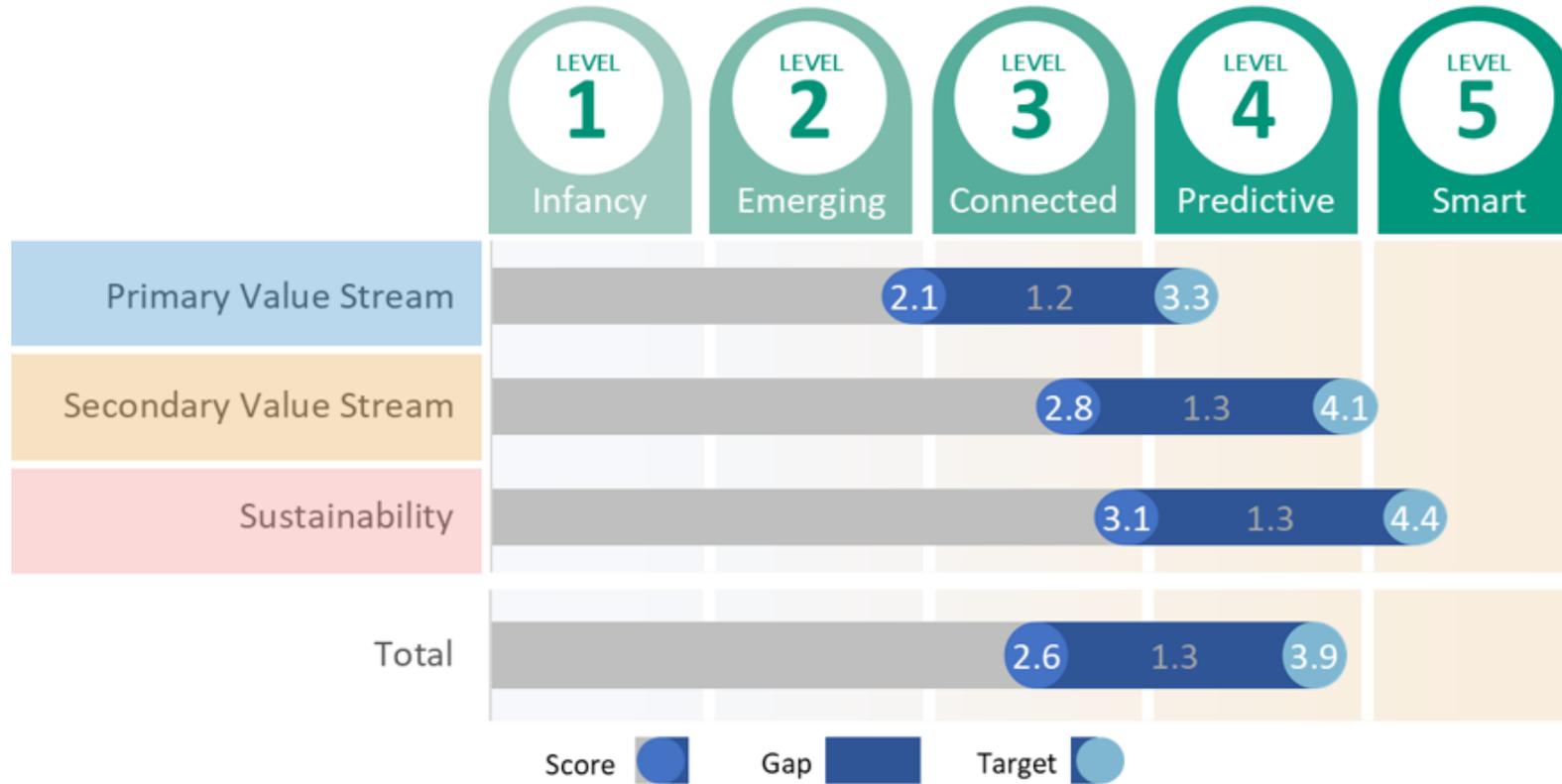




Digital Maturity & Sustainability Assessment Tool



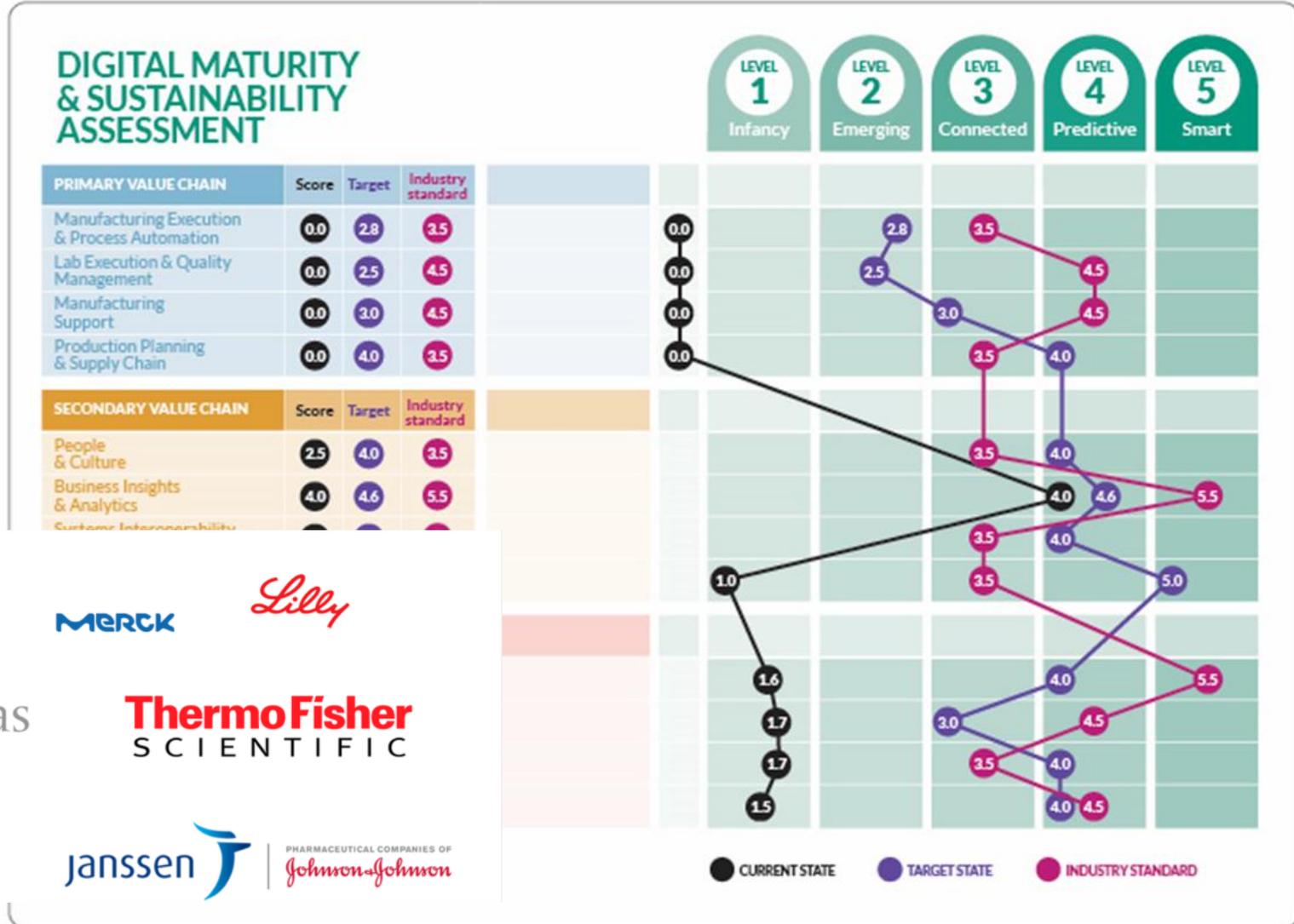
Industry 5.0 Digital Maturity & Sustainability Assessment



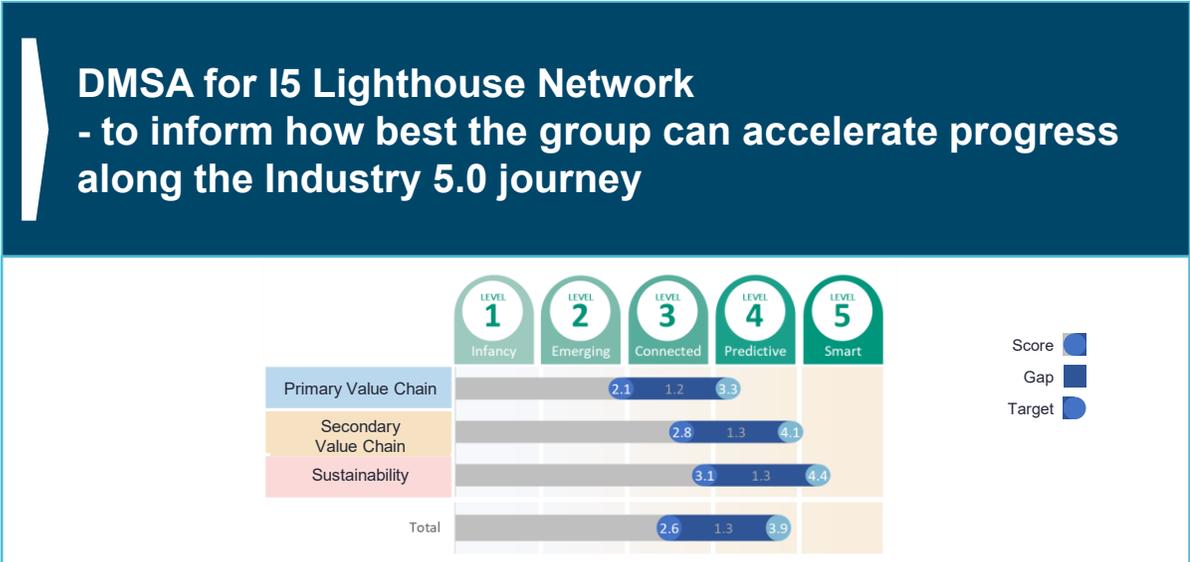
Benchmarking data presented to Lighthouse Network (October 2021)

Maturity state of the small molecule sector in Ireland

Benchmarking Current State and Future Ambition



Overall benchmark results



LPDT prioritized areas for collaboration

Primary Value Chain

- ERP/MES
- Supply Chain Simulation
- Integrated Real-time Monitoring
- Predictive Maintenance

Secondary Value Chain

- AI for BI
- Data Analytics
- IT Infrastructure
- Training
- KPI & CCP

Sustainability

- Resource Management (waste)
- Climate Supply Chain
- Energy Supply and Resources

15.0 Lighthouse Network Group progress measurement

- In Q1 2024 a post assessment survey was conducted to determine
 - What are the **current highest priority** projects?
 - What **projects have progressed** and their impacts?
 - What are the current biggest **barriers to transformation** progress?
 - What DMSA **recommendations have been progressed** and their impacts?
 - Where do companies score themselves today against the 10 thematic areas assessed

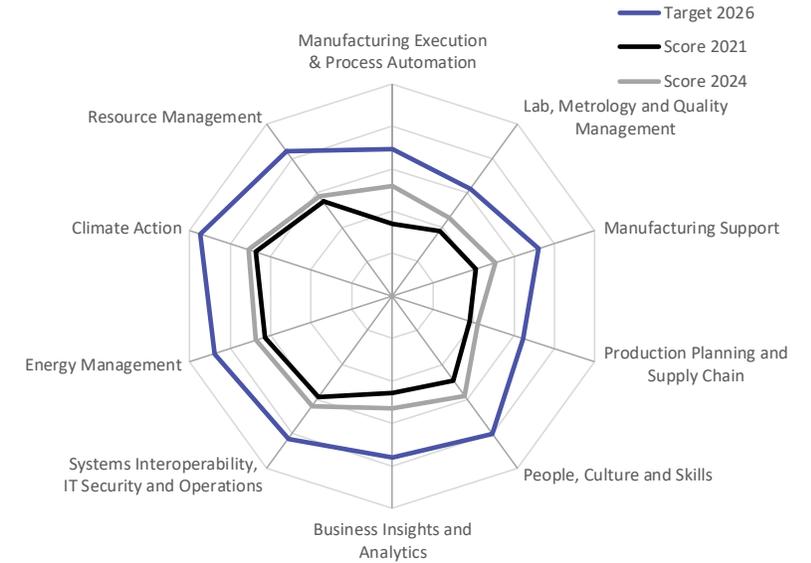


Assessment Results to date



Aggregate March 2024		Score 2021	Target 2026	Score 2024
Primary Value Chain	Manufacturing Execution & Process Automation	34%	69%	52%
	Lab, Metrology and Quality Management	38%	62%	46%
	Manufacturing Support	41%	72%	51%
	Production Planning and Supply Chain	38%	65%	42%
Secondary Value Chain	People, Culture and Skills	49%	80%	58%
	Business Insights and Analytics	46%	76%	53%
	Systems Interoperability, IT Security and Operations	59%	83%	64%
Sustainability	Energy Management	63%	88%	67%
	Climate Action	67%	95%	71%
	Resource Management	55%	84%	58%

Digital Maturity and Sustainability Assessment



Aggregate DMSA Score	2021 Score	2024 Score	2026 Target
Primary Value Chain	38%	48%	67%
Secondary Value Chain	51%	58%	80%
Sustainability	62%	65%	89%
Total Score	50%	57%	79%

	Level 1 Infancy	Level 2 Emerging	Level 3 Connected	Level 4 Predictive	Level 5 Smart
Total Score 2021	50%				
Total Score 2024	57%				
Target 2026	79%				

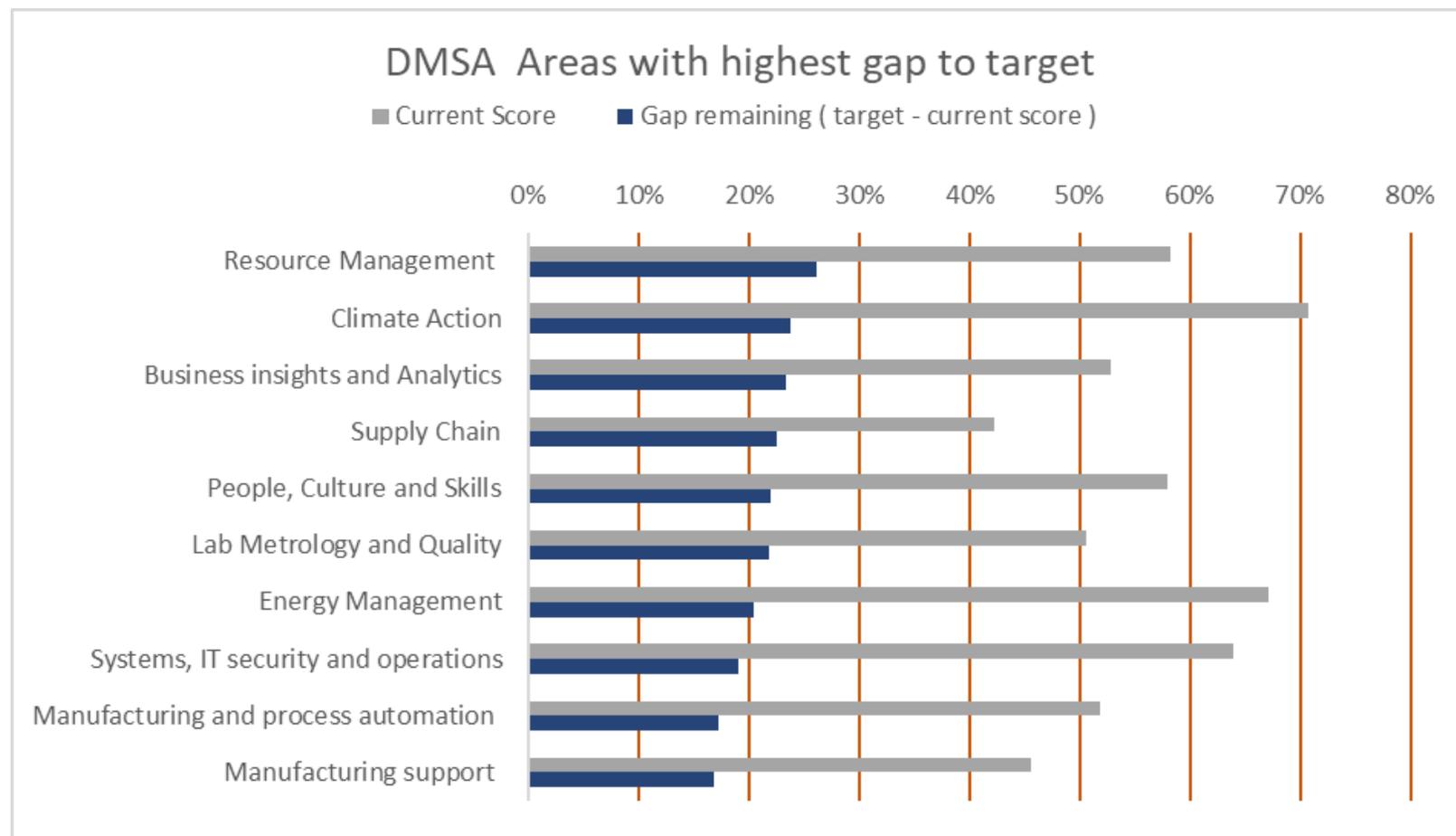
Future Challenges -Takeaways

Sustainability remains a big challenge

Needs more clearly defined tactical steps.

Skills development and talent management are critical to improvement.

All areas will require accelerated focus in order to achieve the targets

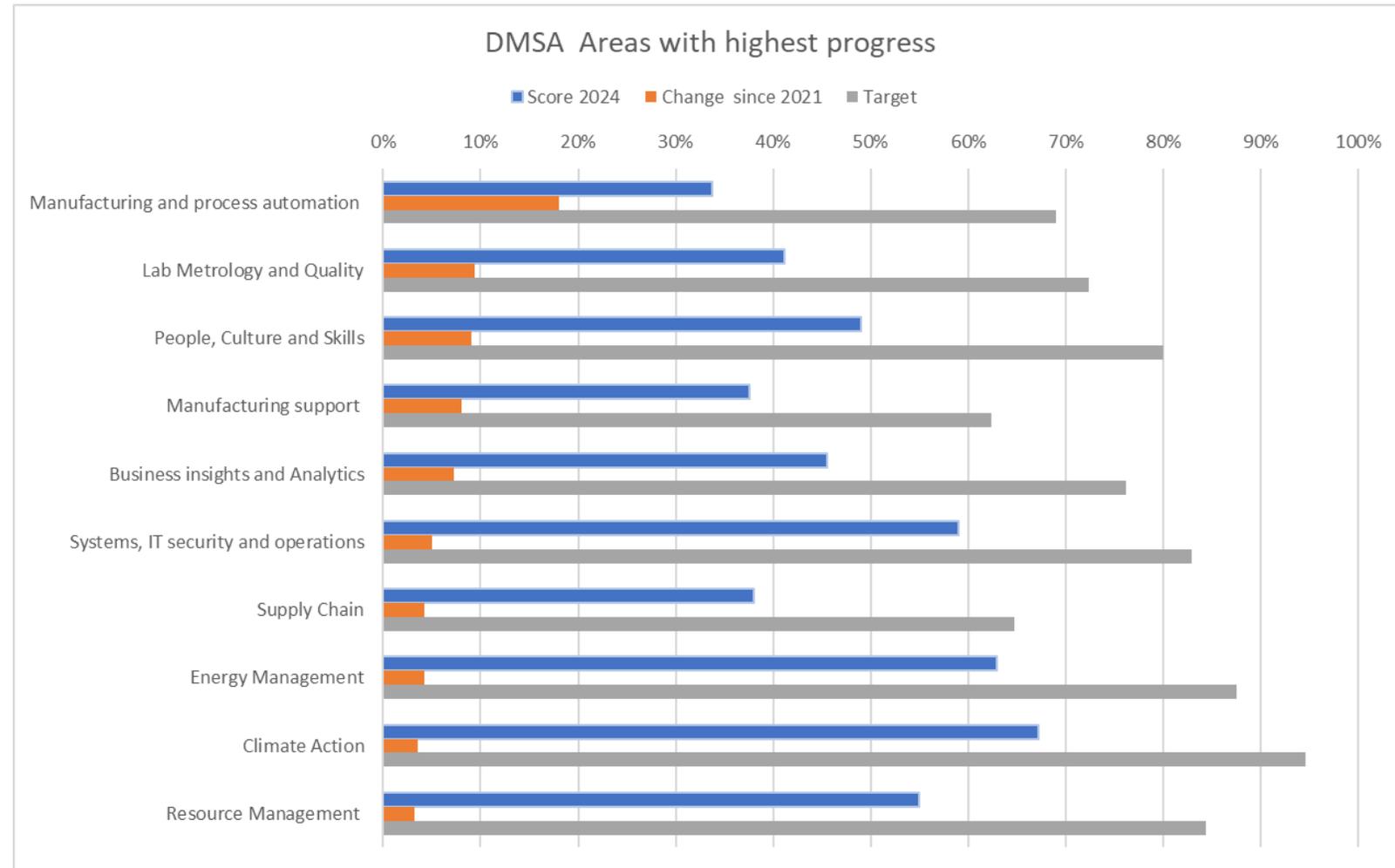


Areas of biggest progress - Takeaways

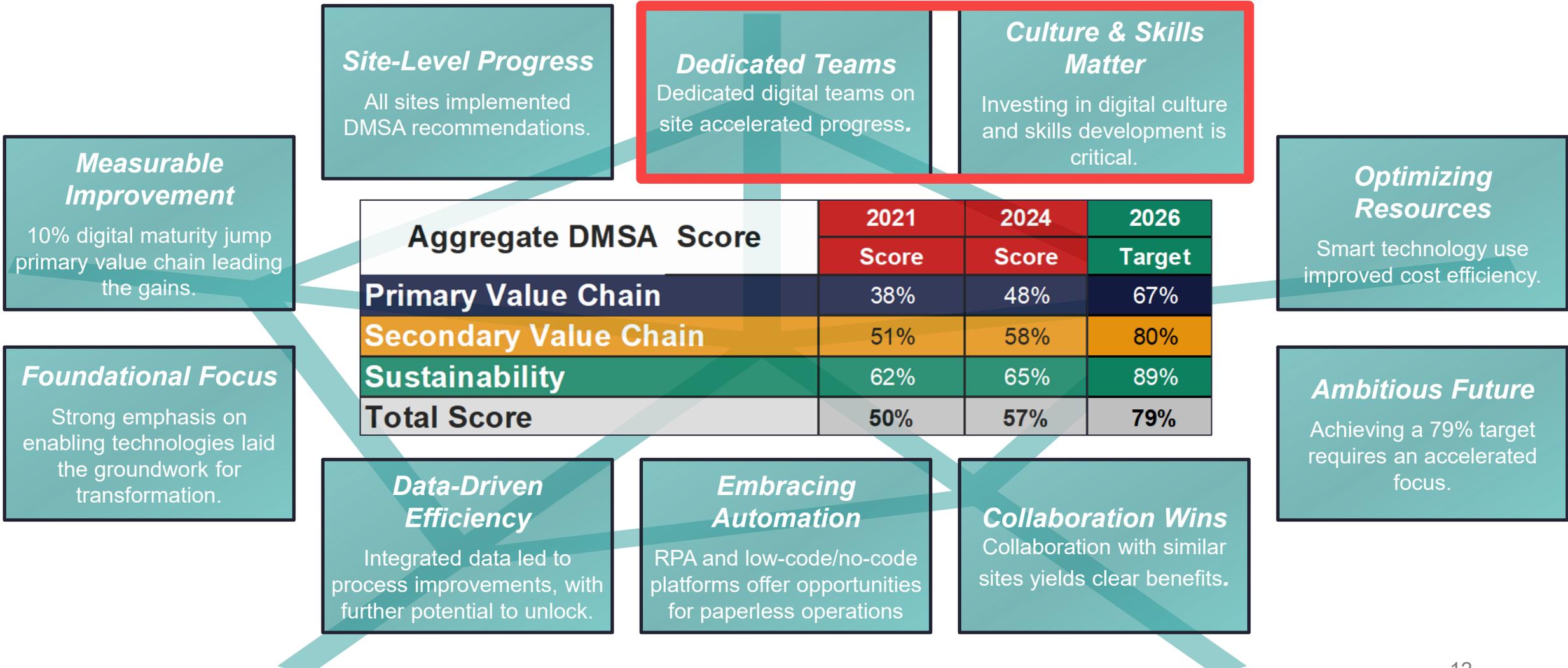
People management and culture
improved engagement

Tiered lean management system
increased engagement

Engagement + sitewide roadmap >
successful transformation



Digital Maturity and Sustainability Assessment 2021 - 2026



Assessing the wider context: One4All



- To boost manufacturing plants' transformation, towards industry 5.0 (I5.0)
- Development of reconfigurable mobile collaborative robots embedded with IIOT devices for real-time monitoring and interconnectivity.



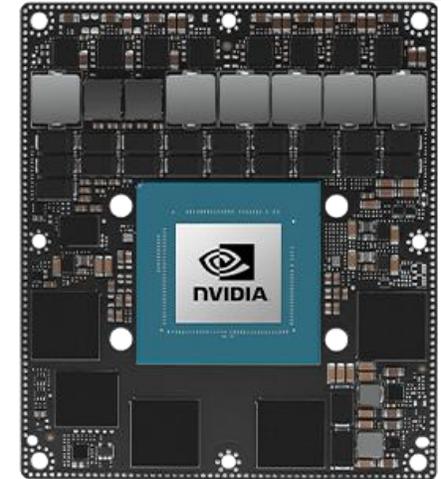
InnoGlobal is responsible for

technology, sustainability and skills needs analysis on manufacturing sites

web-enabled **human-machine telemetry and analysis**

machine vision engineering on collaborative robotics application

software engineering support.



<https://one4allproject.eu/>

Assessing the wider context: Digital Transformation Simplified



Upcoming Training Courses

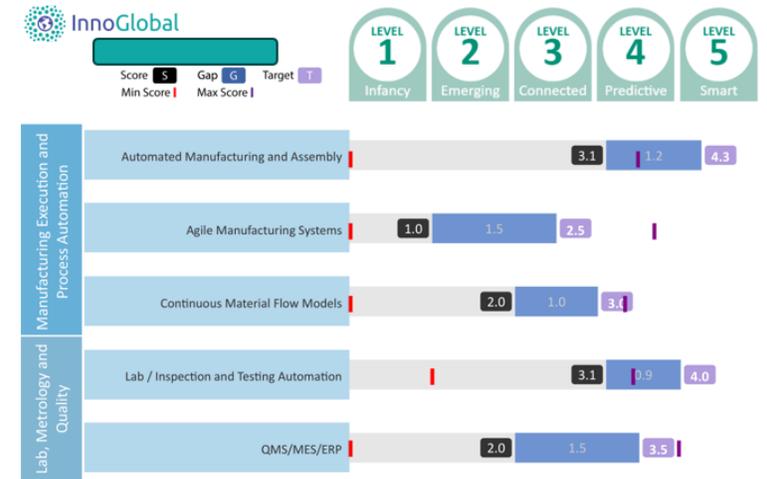
- SEP 15** Masters in Medical Technology Regulatory Affairs - 15/09/2025
 Venue: Online
 Time: 00:00 - 00:00
[Find Out More >](#)
- SEP 30** Professional Mentor Training (EMCC) - 30/09/2025
 Venue: Great National Ballykisteon Golf Hotel
 Time: 00:00 - 00:00
[Find Out More >](#)

Irish Medtech Skillnet is co-funded by Skillnet Ireland and network companies. Skillnet Ireland is funded from the National Training Fund and the European Union through the Department of Further and Higher Education, Research, Innovation and Science.



Benchmarking Primary Value Chain

Comparing your scores and targets to aggregated min and max scores from other assessment participants



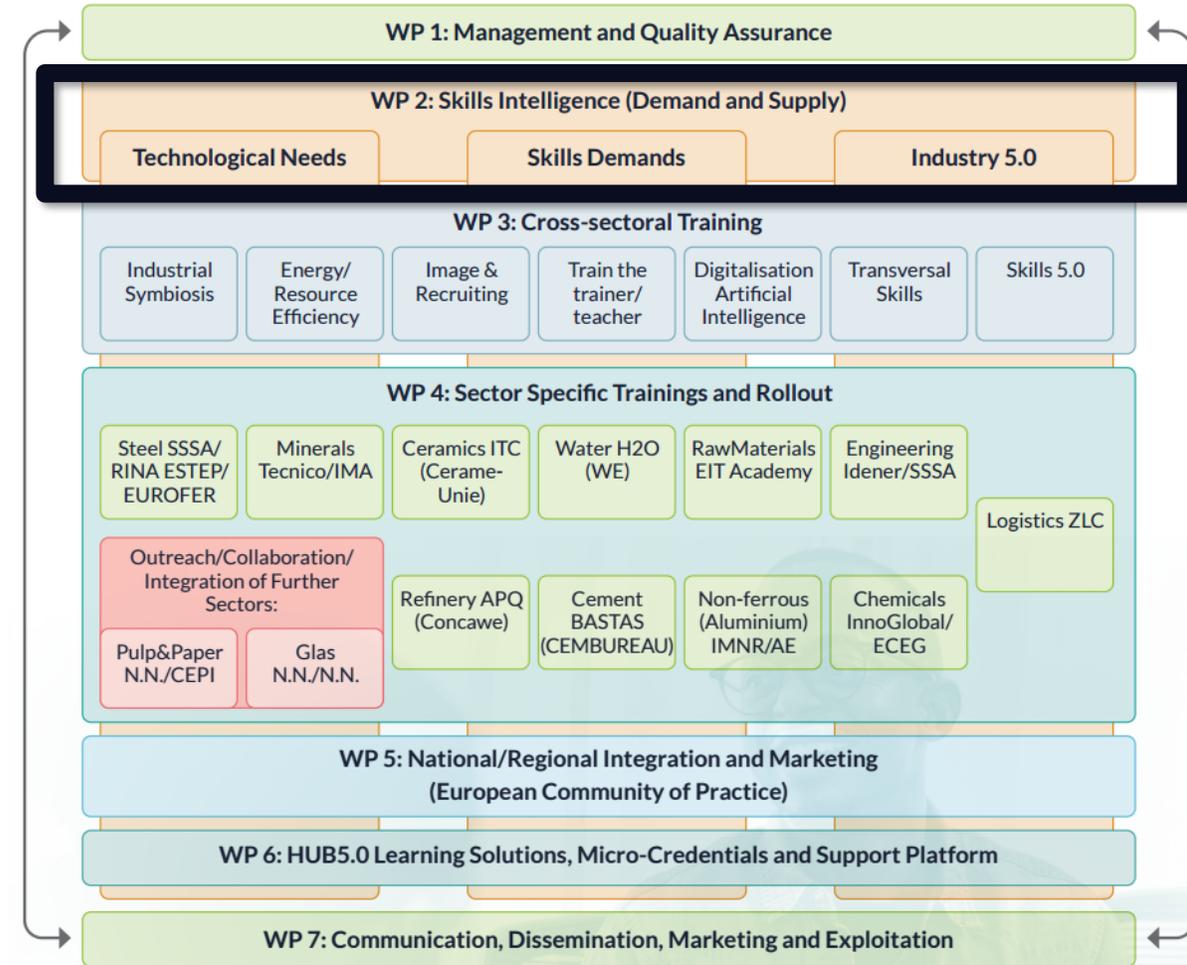
Pact4Skills: Skills4EII



Our Role in Skills4EII

Development of a Skills intelligence tool that enables:

- Systematic job and skills analysis & forecasting
- Sector-specific & cross-sectoral
- Early Warning System



Co-funded by the European Union

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.



Agentic AI Skills Intelligence



High value, industry-specific reports of changing skills needs and roles



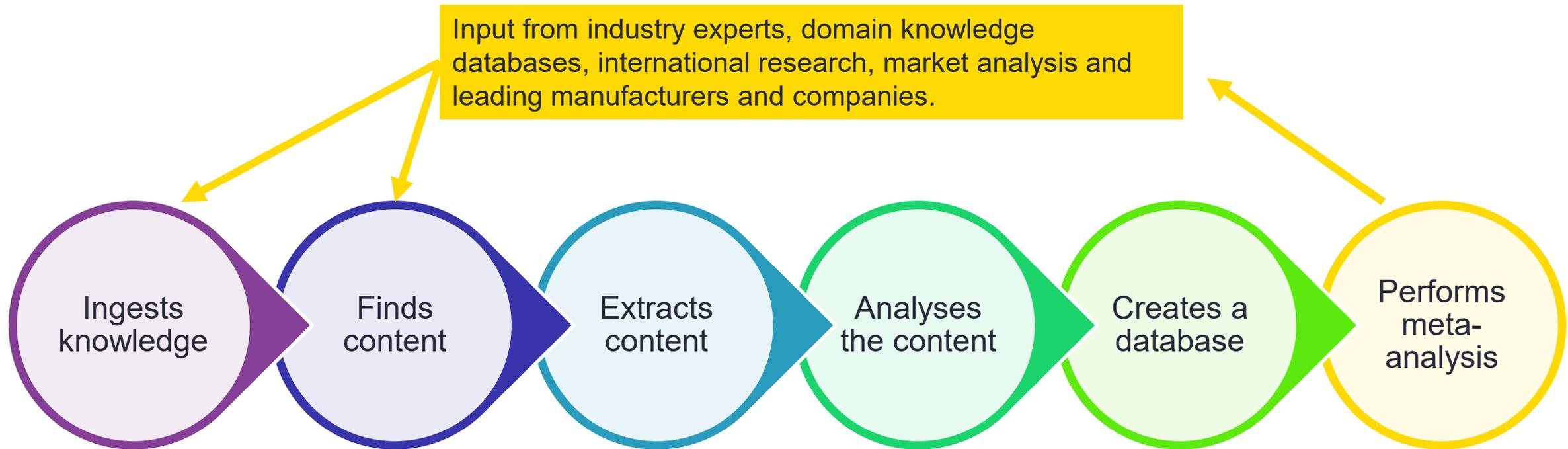
Agentic AI Skills Intelligence



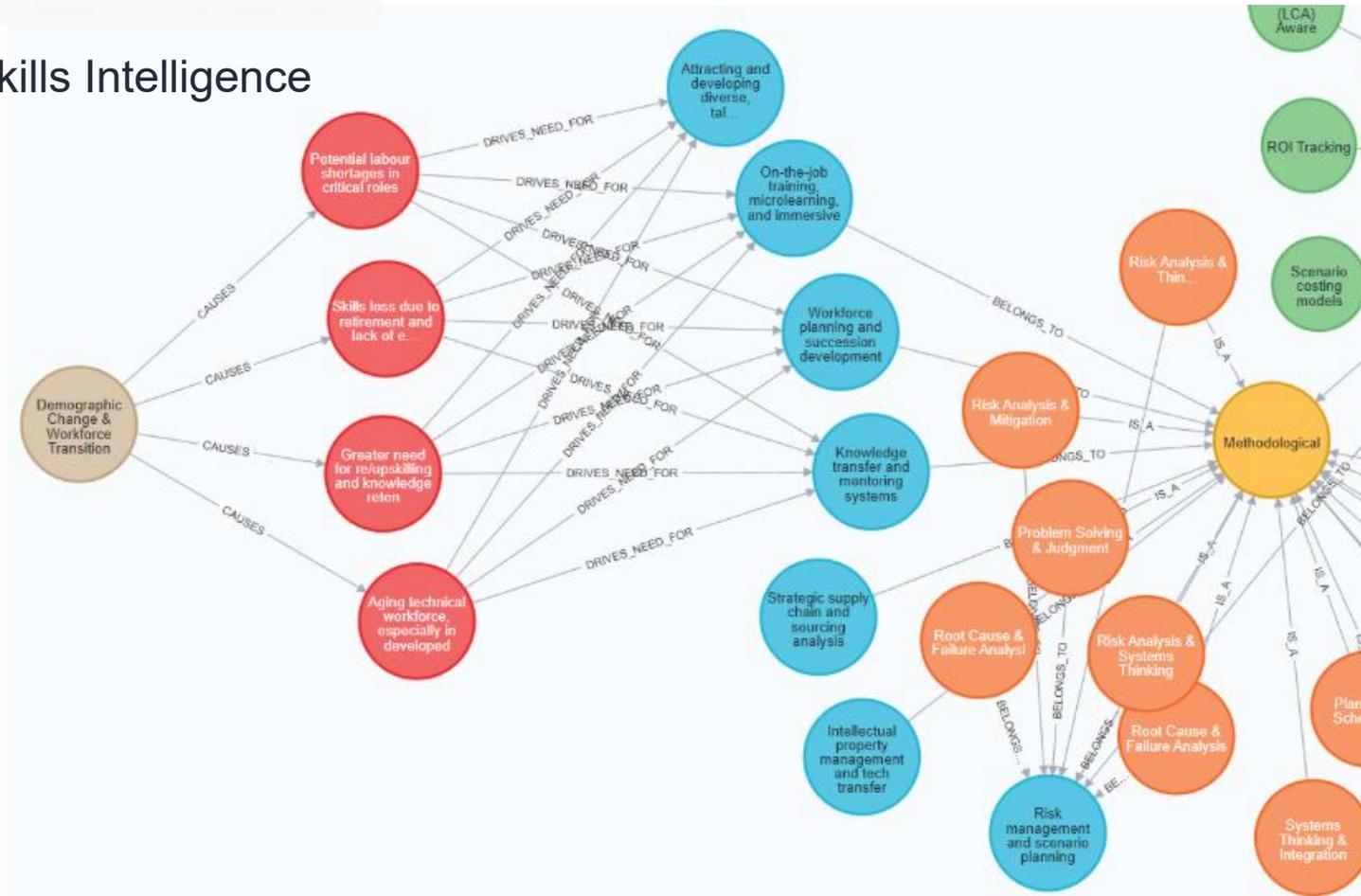
SKILLS 4EII



InnoGlobal



Agentic AI Skills Intelligence



Structured data in the Skills4sight knowledge graph

Skills intelligence reporting



Skills Intelligence Dashboard

Meta-Analysis Dashboard

Early Warning Signals

Site Manager

Report Library

Image Manager

Task Manager

Model:

Dashboard Filters

Sectors

- Aluminium
- Chemicals & Petrochemical
- Mining & Metals
- Oil Refining
- Steel

Hold Ctrl/Cmd to select multiple

Regions

- AR
- AU
- BE
- BR
- CA

Hold Ctrl/Cmd to select multiple

Date Range

From

dd/mm/yyyy

To

dd/mm/yyyy

Top 10 Most Frequent Skills

Pin to Report

1	SQL	69 occurrences
2	Java	56 occurrences
3	Agile Methodologies	56 occurrences
4	Python	49 occurrences
5	Teamwork	32 occurrences
6	Microservices	30 occurrences
7	AWS	29 occurrences
8	Communication	26 occurrences

Key Strategic Trends (Latest 10)

Pin to Report

Policy measures will be critical to supporting the sector's carbon neutrality ambitions Other

Industry Structure includes data on Average Number of Employees per Mill Technological

EU apparent steel consumption continues to mirror weak demand conditions, stemming from war-related disruptions, rising energy prices, and production costs

Early Warning Signals Analysis

Predictive indicators and emerging patterns from comprehensive market analysis

50

Emerging

43

Cross-Sector

100

High Momentum

40

Supply Gaps

Phase 1: Foundation - Market Intelligence

Emerging Skills

Pin to Report

Skills appearing in job market before industry policy recognition



Cross-Sector Skill Migration

Pin to Report

Skills spreading across multiple sectors (technology spillovers)



Evolving Job Titles

Pin to Report

New job titles indicating role transformation

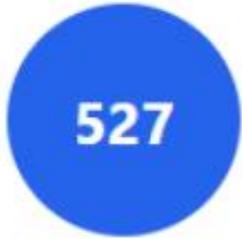
1 App Architect Digital Products

10 mentions 1 sectors

digital

2 Electrical Engineer in Energy Technology, Power Grid Operations & Maintenance Management (m/f/d)

Skills intelligence reporting



Occupational Profiles



Skills Catalogued



Game Changer Roles



Mega-Trends

Occupational Profile Breakdown



Legacy Roles
Requiring upskilling



Transformed Roles
New or evolved



Skills4sight - From Data to Intelligence: The Analysis Pipeline

Detect emerging skills 6-12 months before policy recognition



Phase	Signal Type	Example
1. Emergence	Skills in jobs before documentation	"Hydrogen systems engineering" in steel jobs
2. Intelligence	Cross-sector skill migration	Digital twin skills: automotive → chemicals
3. Prediction	Momentum & gap analysis	Urgency ranking for upskilling initiatives

Skills4sight – Community-in-the-Loop validation



Experts: HR • Training • ESG • Operations • Unions

Skills4sight - From Data to Reporting

Report out on unmet emerging skills needs



Dynamic Reports

- By Sector
- By Geographic Region
- By Skills Category

- By MegaTrend

Scheduled for periodic engagement

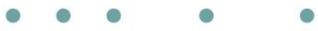
SKILLS EII Intelligence Report - 26/2/2026

Executive Summary

2,200+ Skills Tracked <small>Across 6 categories</small>	22 Game Changer Roles <small>Expert-validated</small>	11 EII Sectors <small>Steel, Chemicals, Cement...</small>
---	--	--

Project n. 101184954
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 EACEA.

Skills4EII Project #101184954 Page 1 Skills4sight Intelligence Engine



SKILLS4EII



InnoGlobal

Next steps: Stakeholder engagement

- We invite EII stakeholders to join us:
 - Share your insights via our Future Skills Priority Survey:
 - (Survey Monkey via LinkedIn)



- Follow the Skills4EII LinkedIn page:





Co-funded by
the European Union

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.



SKILLS4EII

Skills Alliance for the Green,
Digital and Social Transformation
of the Energy Intensive Industries



InnoGlobal

Andrew Barker

steelUniversity

barker@steeluniversity.org

Gareth Clarke

InnoGlobal

clarkeg@innoglobal.com

Candela Jordano

Idener

candela.jordano@idener.ai

Noel Kelly

InnoGlobal

kellyn@innoglobal.com

Future Skills Priority Survey



[Survey Link](#)

Sean Costello

InnoGlobal

costellos@innoglobal.com



InnoGlobal

Skills4EII LinkedIn Page



[LinkedIn Group](#)

Thank you!
Questions?

Gareth Clarke PhD
clarkeg@innoglobal.com