Urgent Up-Skilling

Digital 4
Sustainability
Skills for Europe's Twin Transition

Take part in our Webinar

AI for Improved Sustainable Reporting

Empowering professionals with digital and sustainable skills for resilient long-term growth.

Co-funded by
the European Union

NCI
Lárionad
Néal-Inniúlachta
Cloud Competency
Centre

arisa

"Supported by the Artificial
Intelligence Skills Alliance"

Our Agenda

01
Understanding the Role of AI in Sustainable Reporting

02
How AI can be used to automate data collection, analysis, and reporting processes in sustainable reporting.

03
AI Skills Development in the European Market

04
Developing Relevant Curricula and Training Programs

05
Questions

OUR PRESENTERS

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AI for Improved Sustainable Reporting in Businesses

- A brief overview of Cloud Competency's (NCI) mission and objectives, and ARISA 's mission as a partner in the Digital For Sustainability Project.

CLOUD COMPETENCY CENTRE NCI

's Mission as a partner in the Digital For Sustainability Project.

- NCI Participates in this project via The Cloud Competency Centre (CCC)
- We are committed to bridge high-performance computing, distributed ledger technologies, data analytics, and parallel processing with ongoing business and economic developments to produce quality research outputs and collaborations with academic institutions, funding agencies, and companies.

QUESTION

- **What does sustainability mean to you, and how do you think your daily actions contribute to or detract from a sustainable future?**
- **What comes to mind when you think of Digital Sustainability?**

THINGS THAT COME TO MIND WHEN WE TALK ABOUT DIGITAL SUSTAINABILITY

Environmental Impact:
- Energy Consumption
- Resource Depletion
- Carbon Footprint

2. **Social and Ethical Considerations:**
- Digital Inclusion
- Data Privacy and Security
- Ethical AI

3. "**Twin" transitions?**

Refers to the interconnected process of achieving both digital and sustainable transformations
- Digital tools can accelerate sustainability
- Sustainability considerations should guide digital development

DEFINITION

- The CODES (Coalition for Digital Environmental Sustainability) framework defines digital sustainability as "The design, development, deployment and regulation of digital technologies to secure sustainable economic, environmental and social development."

- The framework identifies three key shifts in digital sustainability:

Three Shifts of Sustainable Framework
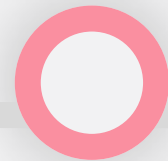
Shift 1: Align Vision, Values, and Objectives

Shift 2: Sustainable Digitalisation
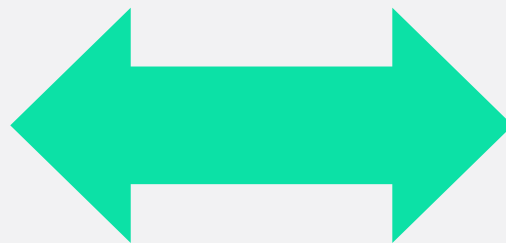
Shift 3: Digitalisation for Sustainability

Three Shifts of Sustainable Framework

Shift 1: Align Vision, Values, and Objectives

- This shift focuses on the foundational aspects of ensuring that the vision, values, and objectives of digital development are aligned with sustainability principles.

Three Shifts of Sustainable Framework

Shift 2: Sustainable Digitalisation

- This shift focuses on making the digital technologies and infrastructures themselves more sustainable. This includes addressing the environmental and social impacts of the ICT/digital sector.

Examples include:

- Reducing the energy consumption and carbon footprint of data centers and digital devices.
- Promoting ethical sourcing of materials for digital technologies.
- Ensuring responsible data management and privacy practices.

Three Shifts of Sustainable Framework


**Shift 3:Digitalisation
for Sustainability**

- This shift focuses on leveraging the power of digital technologies to drive sustainability across various sectors and industries.
- Improve resource efficiency and reduce waste.Transition to a circular economy.
- Promote sustainable consumption and production patterns.
- Enable climate action and resilience.
- Advance social inclusion and equity.

UNDERSTANDING THE ROLE OF AI IN SUSTAINABLE REPORTING

- Artificial intelligence (AI) is revolutionising various fields.
- Sustainable reporting is no exception. AI can play a crucial role in automating and enhancing the process of collecting, analysing, and reporting sustainability data.
- AI's ability to analyse vast amounts of data and identify trends can help organisations uncover deep insights
- Make data-driven decisions and set more effective sustainability targets.
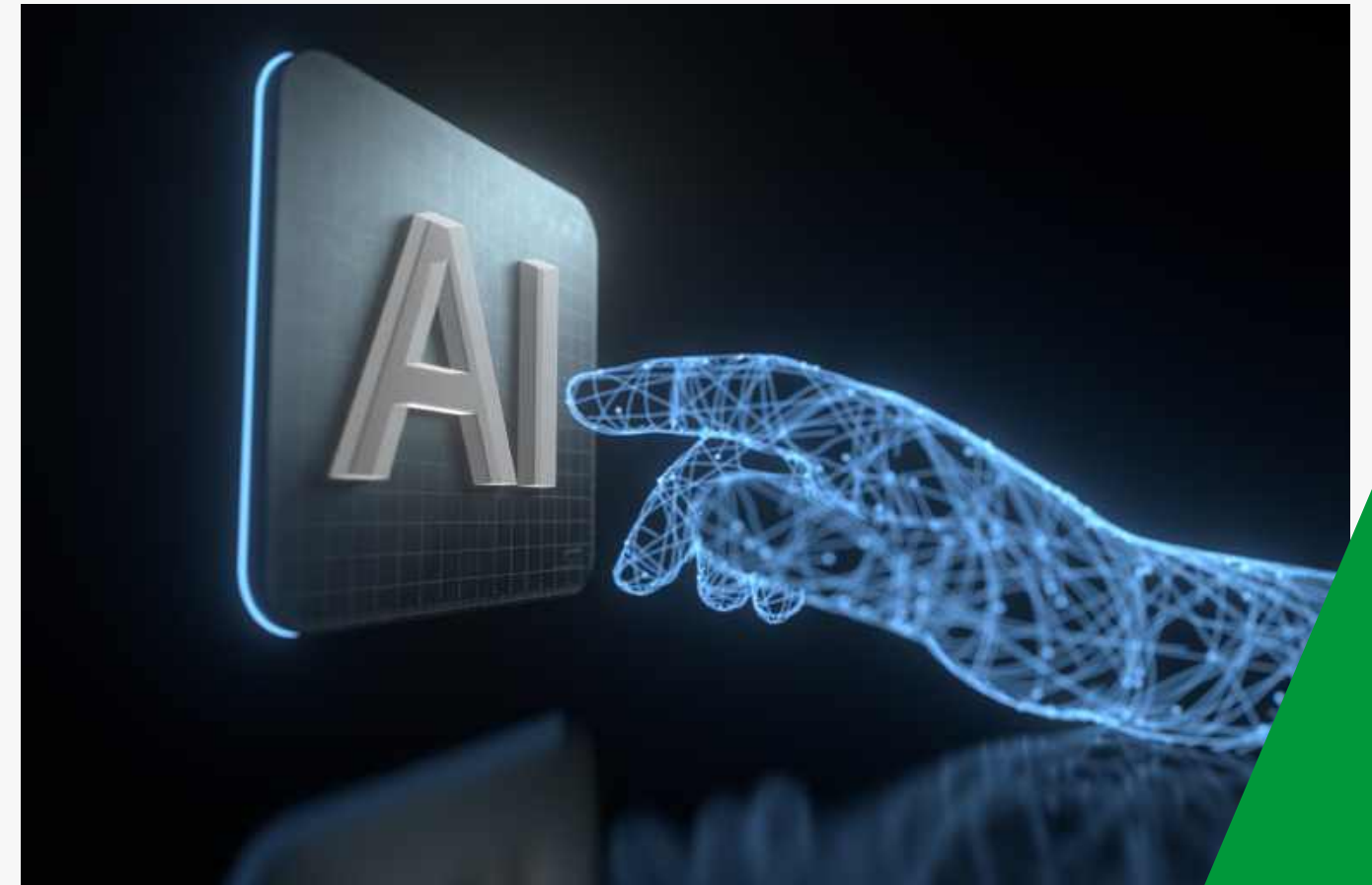
Understanding the Role of AI in Sustainable Reporting

Automation

Analysing
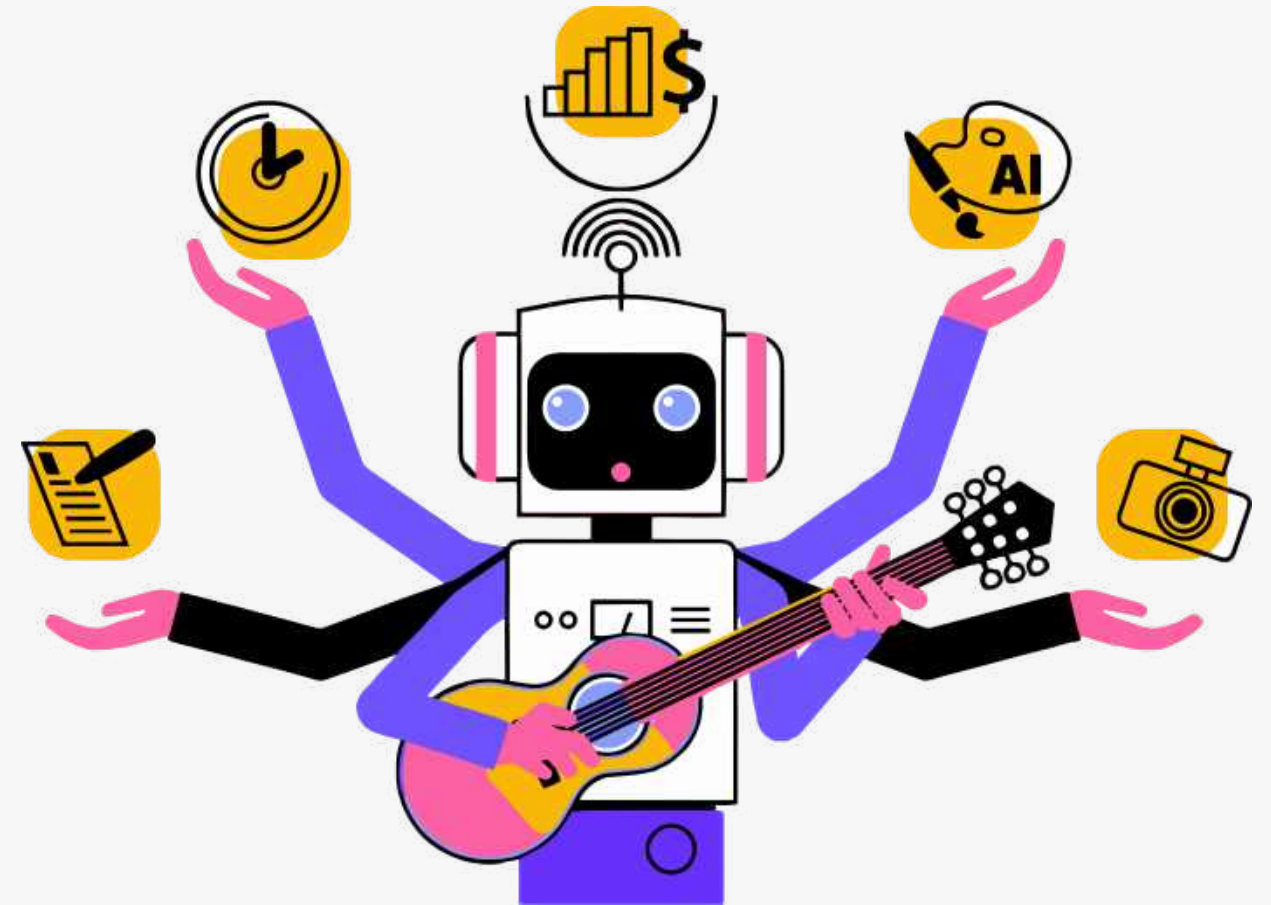
Generating Reports

HOW AI CAN BE USED TO AUTOMATE DATA COLLECTION, ANALYSIS, AND REPORTING PROCESSES IN SUSTAINABLE REPORTING IN DIFFERENT INDUSTRIES

- AI is a broad field that encompasses many different disciplines.
- We will look into different industries on how AI Sustainable reporting is paying a crucial role in various industries.
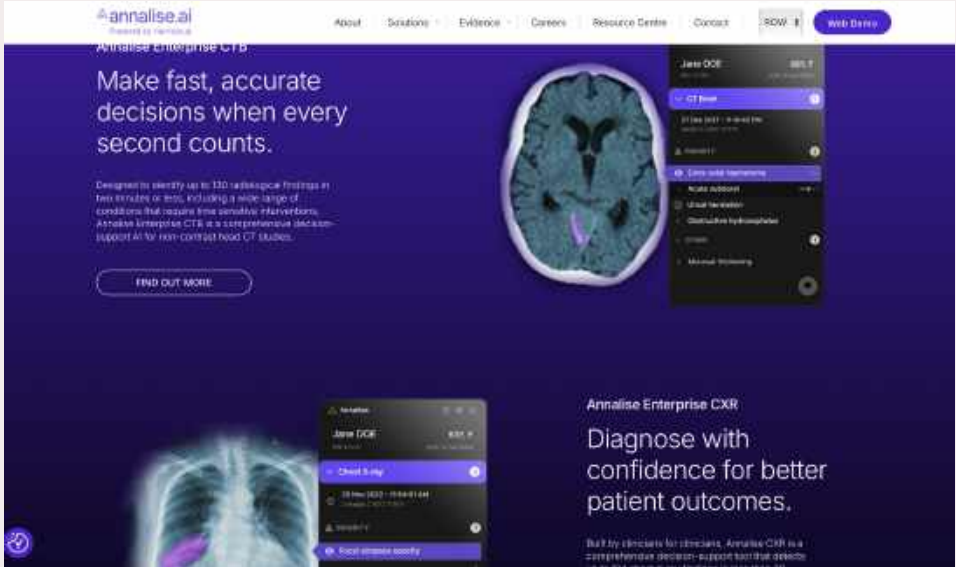
Real Life Example of AI Sustainable Reporting:HealthCare Annalise.ai Case Study

Healthcare: AI is used for disease diagnosis, treatment optimisation, and drug discovery.

AI cancer diagnosis 'might have saved my life'

11 December 2024

Share   Save +

Cash Boyle
BBC News, South East

(BOYLE,2024)

Finance QuickLoan Case Study

Finance: AI is used for fraud detection, risk management, and algorithmic trading.

Avail Loan to achieve your goal

Whether it's a Personal loan for unexpected expenses or a Business loan to help finance a startup, or any other financial need, we are committed to helping our customers achieve their goals.

Challenge: QuickLoan Financial, a fintech company, faced difficulties efficiently processing increasing loan application volumes. The manual review process was time-consuming, prone to errors, and often resulted in delayed loan approvals, affecting customer satisfaction and operational efficiency.

Solution: QuickLoan Financial adopted an AI-driven approach to transform its loan approval process. The solution centered around a sophisticated AI model that automated the evaluation of loan applications based on various criteria, such as credit scores, employment history, and financial behavior.

Result: Adopting the AI system led to a 40% decrease in loan processing time and a 25% improvement in detecting and rejecting high-risk applications. QuickLoan Financial significantly enhanced customer satisfaction through faster loan approvals while maintaining a low default rate, strengthening its market position.

Transport UBER &NewYork Subway

Transportation: AI is used for autonomous vehicles, traffic optimisation, and route planning.

1. **Predictive Maintenance for Transportation Infrastructure**
   - **Technology Used:** IoT and AI
   - **Example:** The New York City Subway uses AI to predict and prevent equipment failures, scheduling maintenance before issues disrupt service.
   - **Benefits:** Minimises downtime and service disruptions by anticipating maintenance needs.
2. **Dynamic Pricing for Ride-Sharing and Public Transport**
   - **Technology Used:** Machine Learning, Predictive Analytics
   - Example: Uber employs AI for surge pricing, adjusting fares in real-time based on demand and supply.
   - **Benefits:** Optimises pricing, enhances service availability, and balances demand and supply.

Kraken's generative AI reporting tool for customer service helping Octopus Energy

Customer service: AI is used for chatbots, virtual assistants, and personalised recommendations.
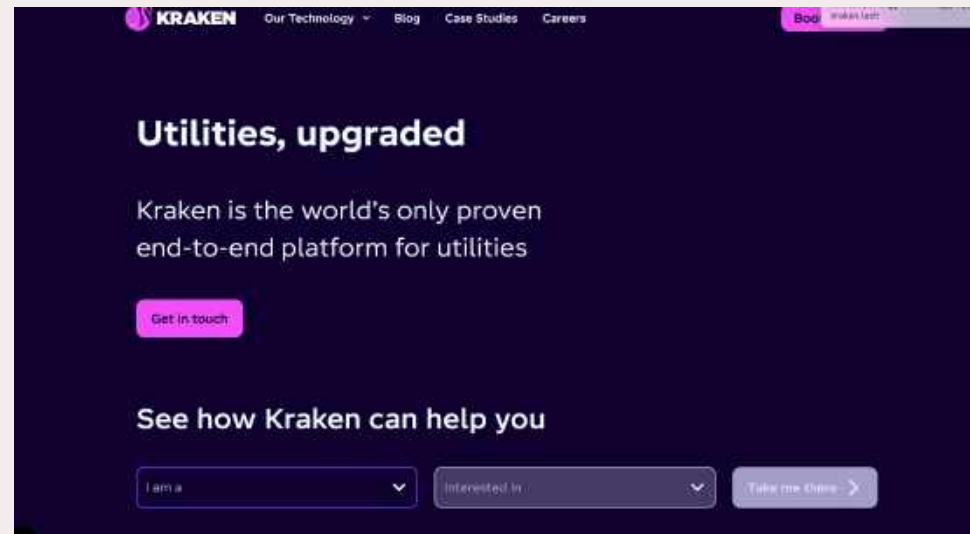

1. Magic Ink is Kraken's generative AI tool for customer service. Built on GPT-like models customer service staff can use the tool to summarise all interactions with a customer, generate automated responses, and suggest actions, such as requesting a meter reading.
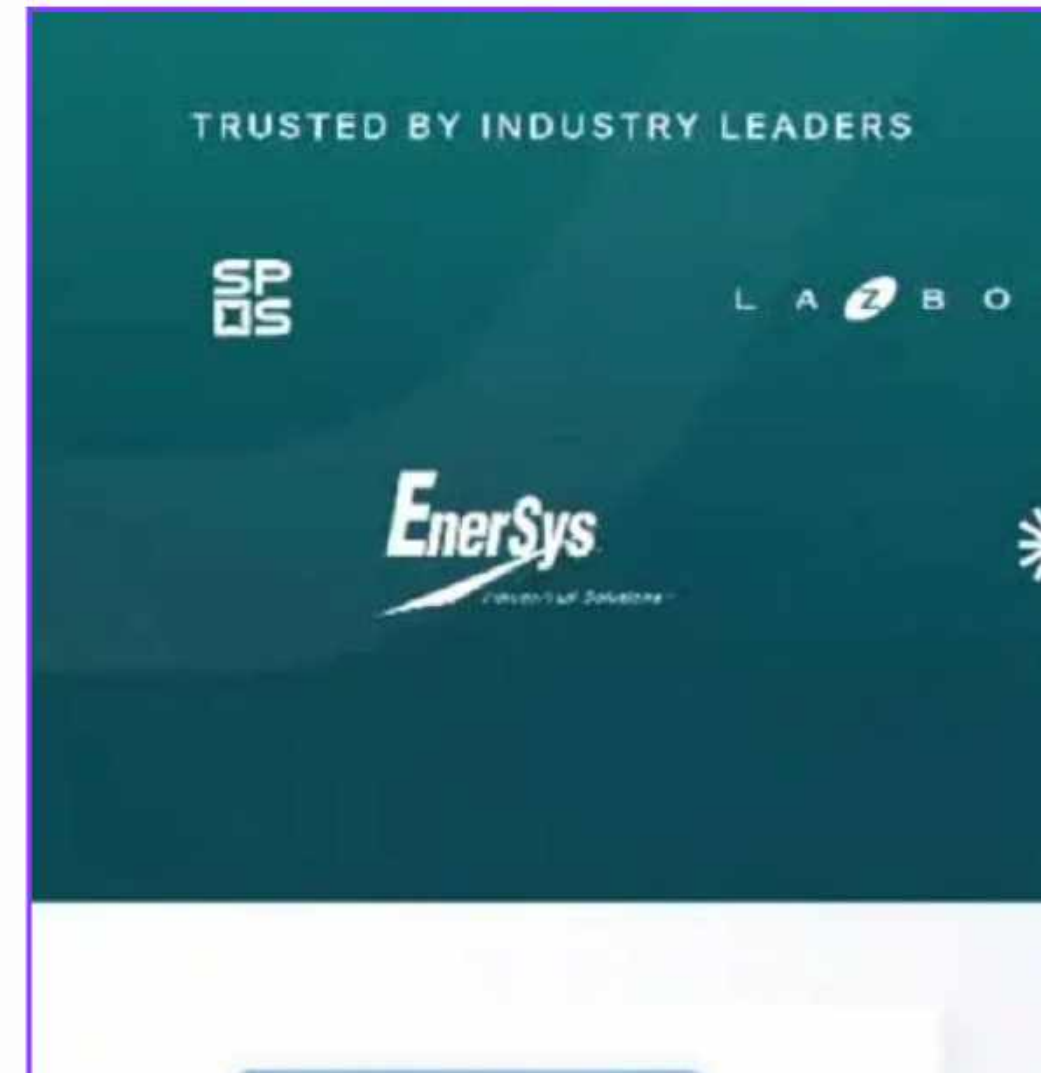
2. **Impact**
   - Assisted by Magic Ink, Octupus team has been able to deliver improved service and quicker customer response times. 35% of customer emails are currently written with the assistance of this tool, receiving higher customer satisfaction ratings (around 70%) than those without.

   - To date, Magic Ink has summarised 6,239,087 calls – the equivalent of 695,379 hours of talking time – and has generated a further 9,415,901 messages.

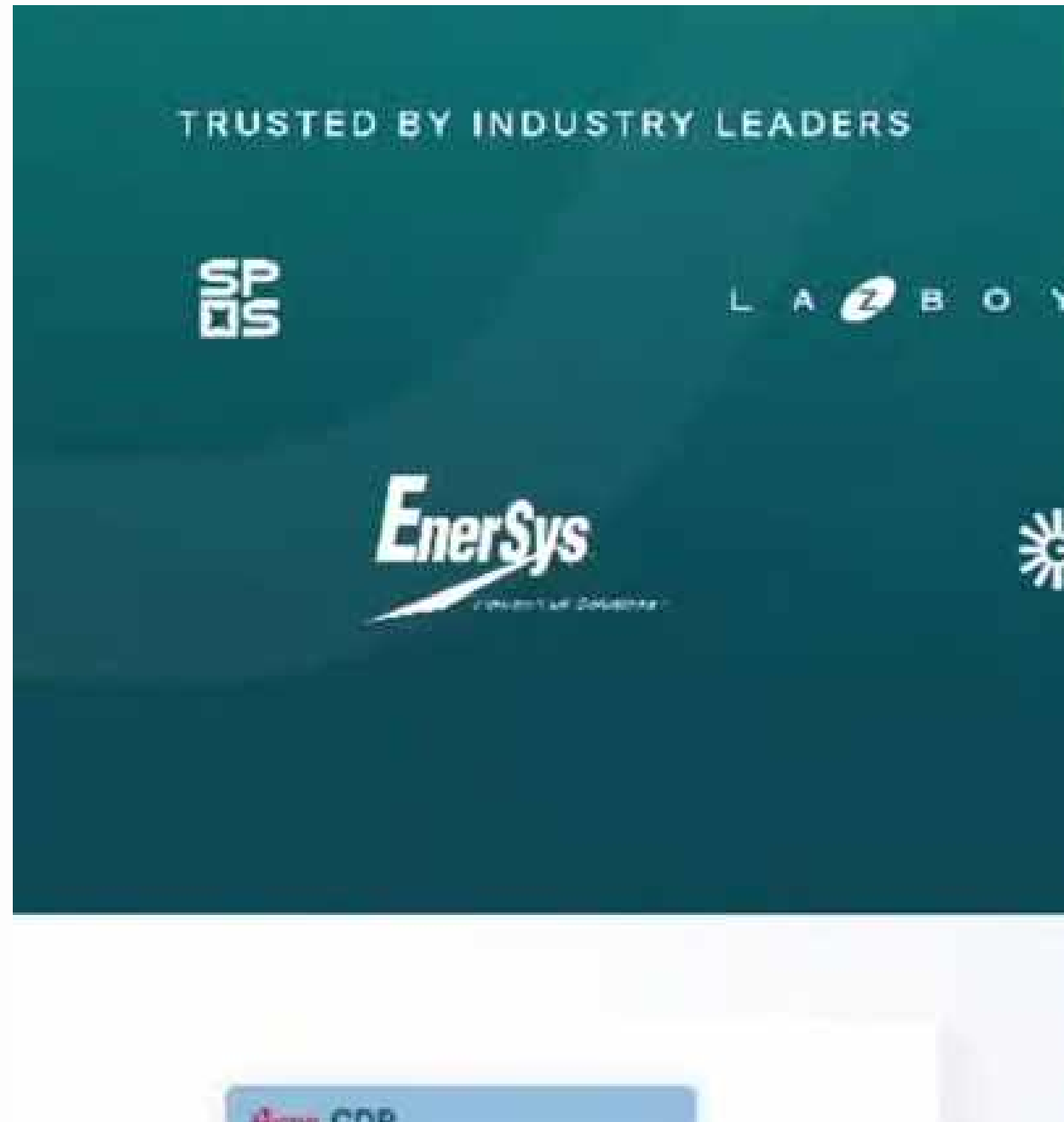# EXAMPLES OF SUSTAINABLE AI REPORTING TOOLS: ESGFLO
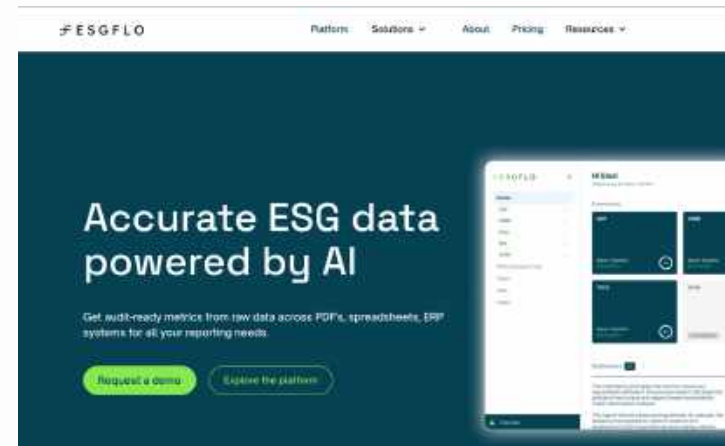
ESG is an all-inclusive reporting software that uses AI to help companies create ESG audit-ready metrics from raw data. ESG Flo's AI automates data collection and processing across all ESG disclosures by pulling information from various sources, such as invoice documents, HR data, ERP system extracts, supplier data

EXAMPLES OF SUSTAINABLE AI REPORTING TOOLS: SUSTAIN AI

This AI tool analyses sustainability reports, enabling auditors and controllers to handle and analyse the required CSR criteria efficiently. It uses AI language models to filter out text passages relevant to specific criteria, saving time and increasing efficiency

EXAMPLES OF SUSTAINABLE AI REPORTING TOOLS: SUSTAIN AI

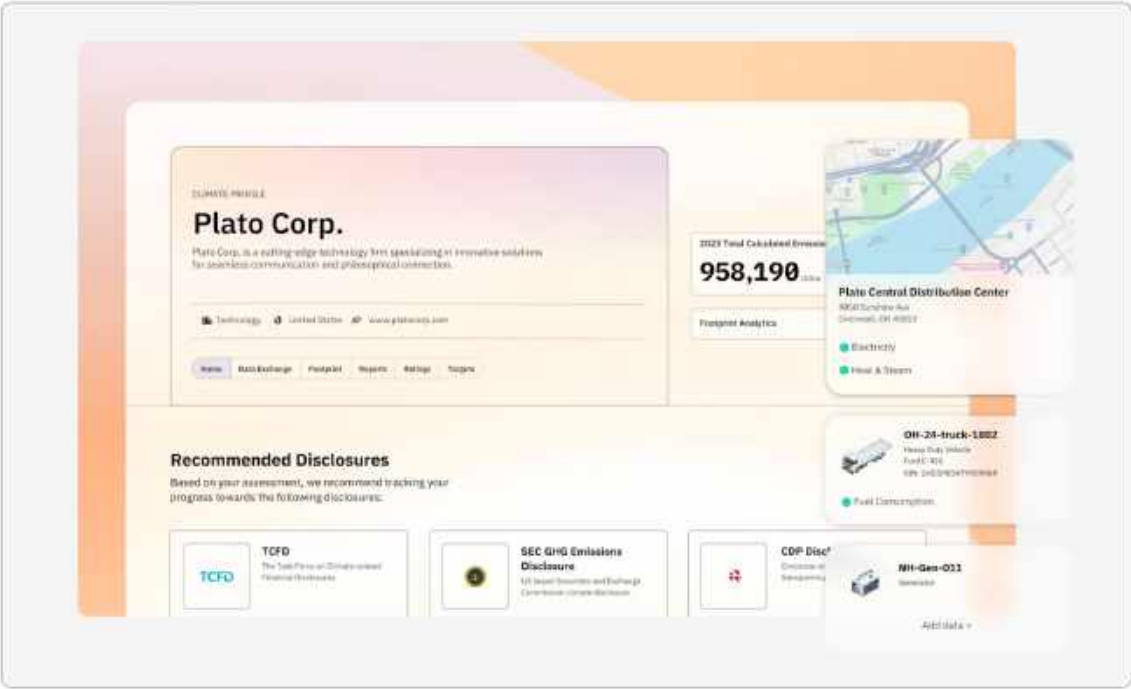# EXAMPLES OF SUSTAINABLE AI REPORTING TOOLS PERSEFONI

PERSEFONI

PersefoniAI can detect statistical anomalies — saving you time and headaches.

WEBSITE CARBON CARCULATOR

Website Carbon Calculator

How does it work? FAQ Get the badge! API Consultancy

The original Website Carbon calculator

Estimate your web page carbon footprint:

Your web page address

https://www.websitecarbon.com
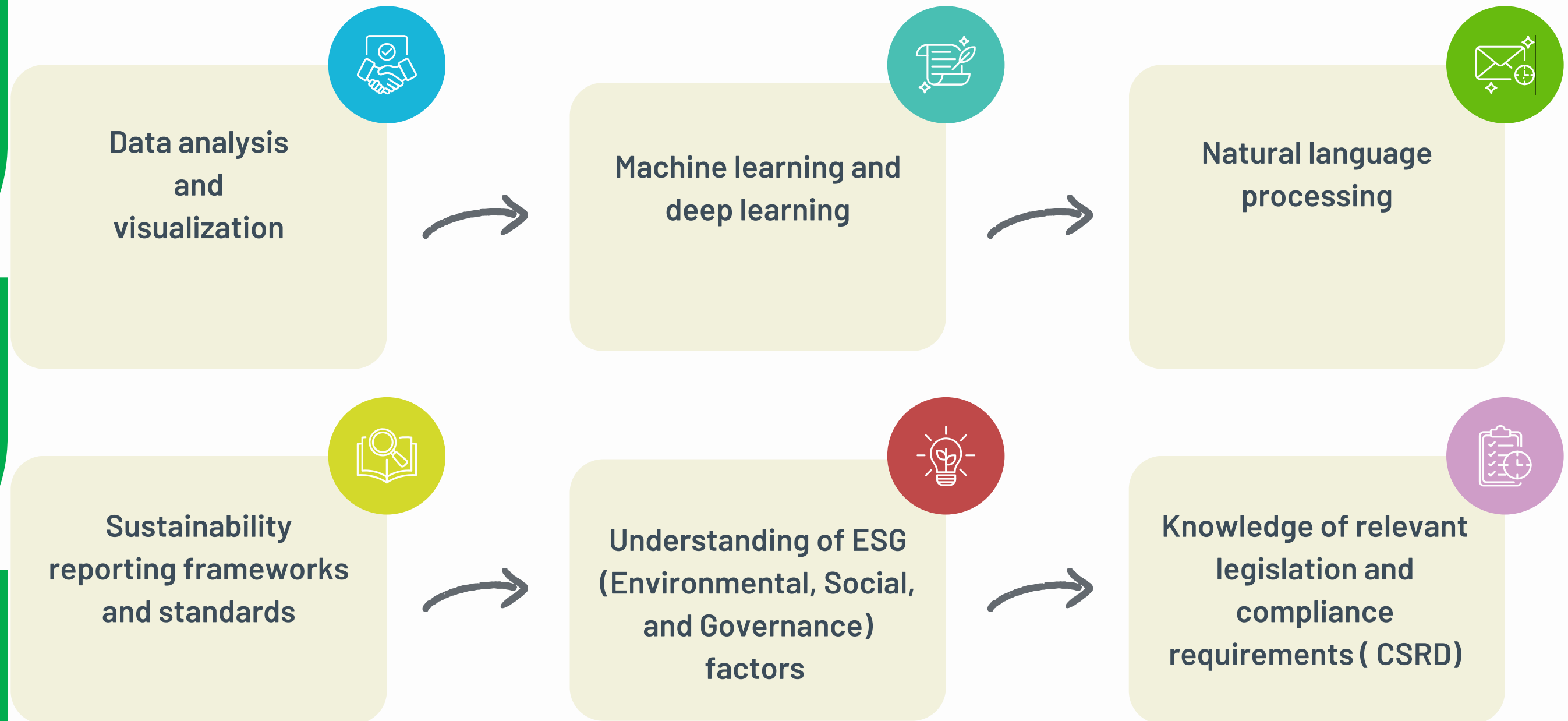
AI SKILLS DEVELOPMENT IN THE EUROPEAN MARKET

- The European Commission's 2023 Digital Economy and Society Index (DESI) report indicates a significant AI skills gap in Europe. A 2024 study by the European Centre for the Development of Vocational Training (CEDEFOP) found that only 1 in 10 European workers possess the necessary skills to work with AI. These findings underscore the need for greater investment in AI skills development across Europe.

KEY SKILLS FOR SUSTAINABLE
REPORTING PROFESSIONALS INCLUDE:

Data analysis and visualization

Machine learning and deep learning

Natural language processing

Sustainability reporting frameworks and standards

Understanding of ESG (Environmental, Social, and Governance) factors

Knowledge of relevant legislation and compliance requirements (CSRD)

UNDERSTANDING OF ESG(ENVIRONMENTAL, SOCIAL, AND GOVERNANCE) FACTORS

What does ESG Stands For?

ESG and Sustainable Reporting
ESG factors

AI and ESG

Why ESG Matters?

SUSTAINABILITY REPORTING FRAMEWORKS

- Sustainability reporting frameworks and standards serve as guidelines for organizations to measure, analyse, and communicate their environmental, social, and governance (ESG) performance. These frameworks provide a structured approach to sustainability reporting, ensuring consistency, comparability, and credibility:
- By adhering to these frameworks, organisations can effectively measure and communicate their sustainability performance to stakeholders, demonstrating transparency and accountability.
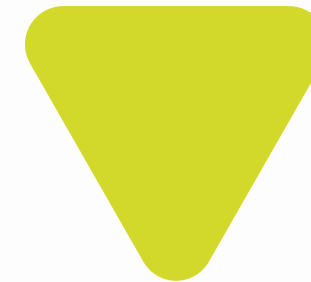
GLOBAL REPORTING INITIATIVE GRI

Drives sustainable Development

Provides a Reporting Framework

Promotes Transparency and Accountability

Sets Global Standards
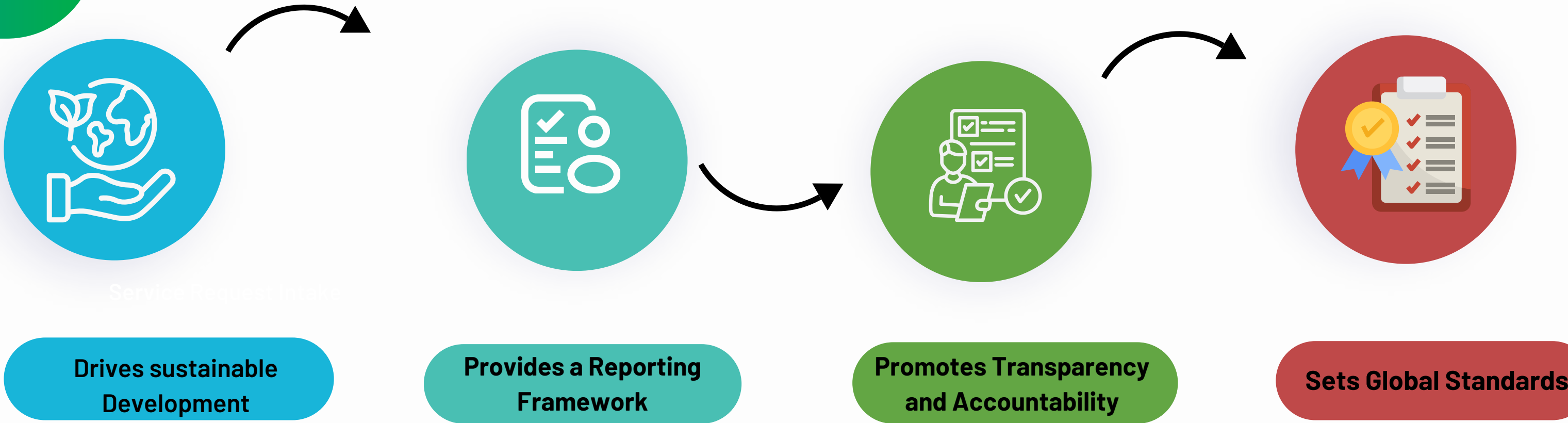
SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB)

Disclosure

Market-informed

Ticket Closure

The Sustainability Accounting Standards Board (SASB)

Evidence-based

https://sasb.ifrs.org

INTERNATIONAL INTEGRATED REPORTING COUNCIL (IIRC):

1) Founded in 2010

2) International Integrated Reporting Framework.

3)Stakeholder relationships

4)Promotes Integrated Reporting

5)Raise awareness

6)Holistical Thinking
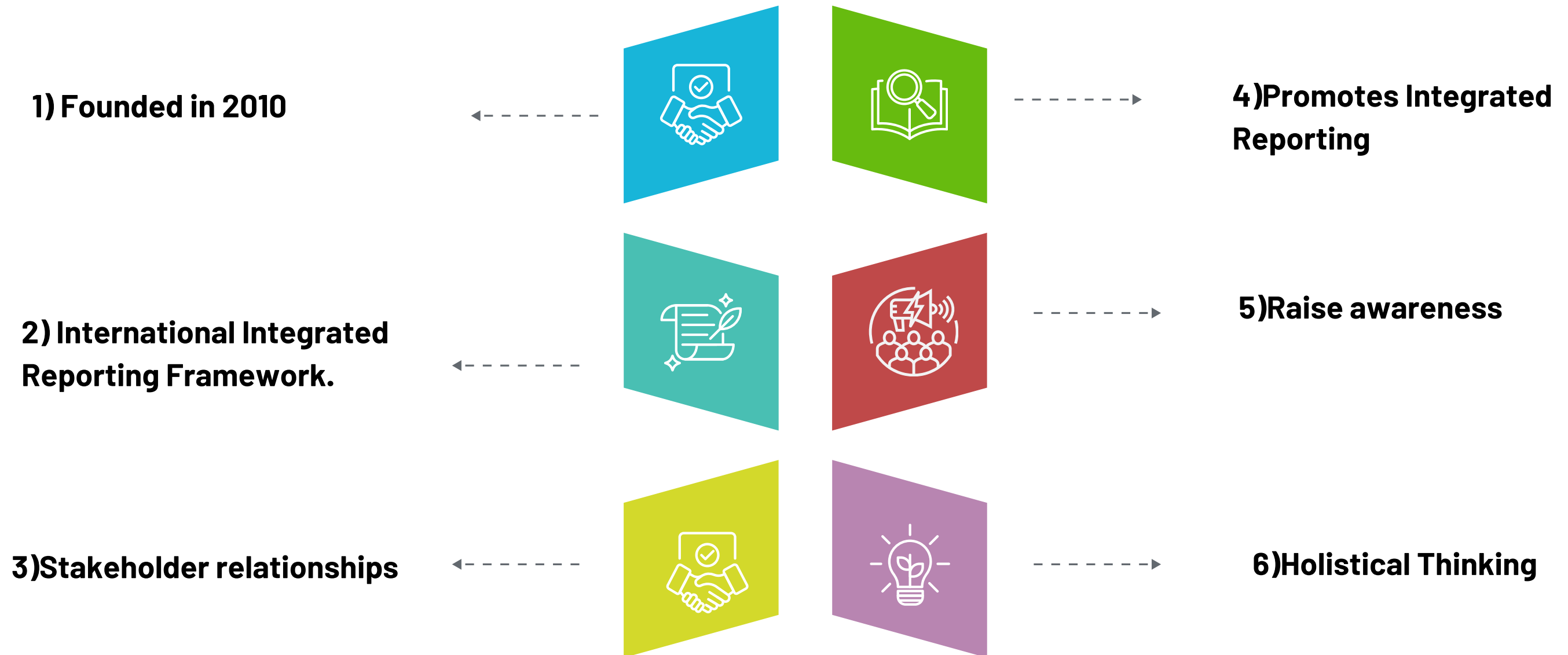
NEXT STEPS FOR YOU

- **Research** : Have clear your goals objectives and find the right sustainable AI tool for you
- **Remain Critical**: Though AI system are truly amazing they are not perfect. Therefore , users of AI systems must remain critical and carefully check the output.
- **Compare and contrast :**There are different systems out there. We listed some , and there are other well known such as ChatGPT, Gemini- It is good to check them out and compare and contrast their output. Many offer free demos
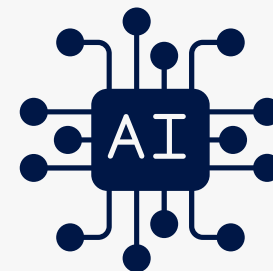
ARISA : AI SKILLS DEVELOPMENT IN THE EUROPEAN MARKET

arisa

The <u>Artificial Intelligence Skills Alliance</u> will fast-track the upskilling and reskilling of employees, job seekers, business leaders, and policymakers into AI-related professions to open Europe to new business opportunities

4-year Erasmus+ funded project (2022-2026

Focus on Artificial Intelligence

20 partners from 12 EU countries

Co-funded by the European Union

https://aiskills.eu/

ARISA : AI SKILLS DEVELOPMENT IN THE EUROPEAN MARKET

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Core Curricula for AI related roles

Online learning platform

Career guidance network

https://www.linkedin.com/company/aiskillseu

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