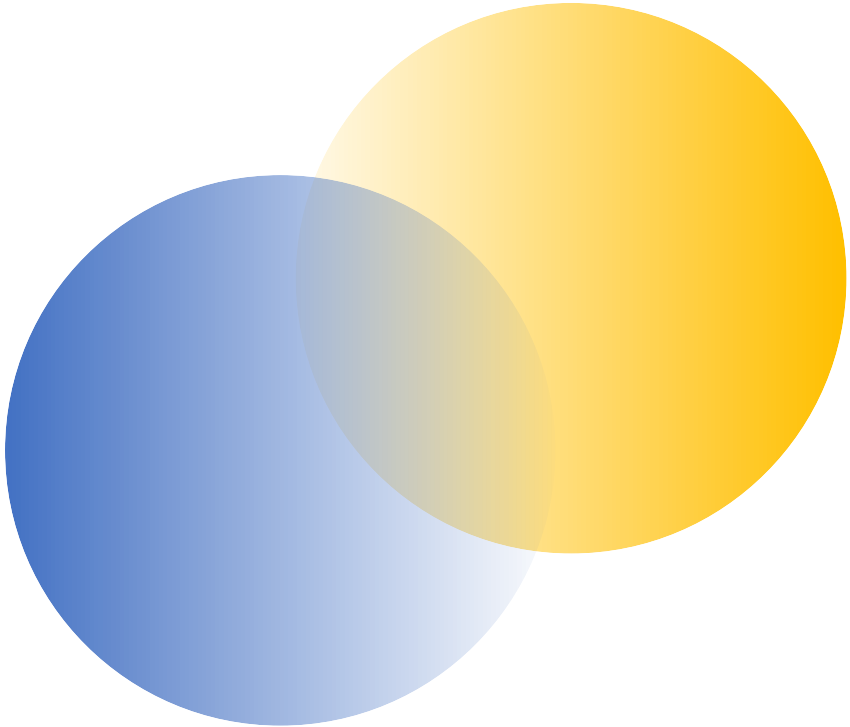
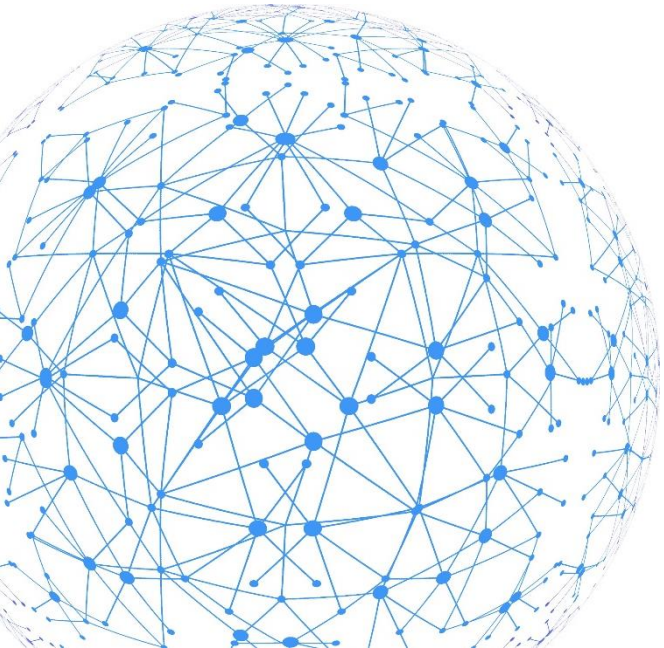
Atos: il digitale per un mondo a emissioni zero

Giuseppe Di Franco
CEO Atos Italia



Atos

leader globale
nella trasformazione digitale



in Italia

1500 dipendenti - +400 in periodo Covid-19

5 sedi in Italia

+15% di crescita annua

Oltre 550 esperti SAP

Great Place to Work

Ricerca e innovazione

Decarbonizzazione

Great place to work

a Bologna e in Emilia-Romagna

Nuova sede dal 2021

A breve, nuova sede a BI-REX

Ricerca & Innovazione: *AI, IoT, Data Driven Solutions, Digital Twin*

Tecnopolo: *ECMWF, Cineca*

Occupazione e formazione

Cultura digitale

Crescita territoriale

Great Place To Work. Certified NOV 2021–OTT 2022 ITALIA

Atos Worldwide IT Partner

emilia

ALMA MATER STUDIORUM A.D. 1088

CINECA

iFAB

Fighting Climate Change

Achieving the Net Zero

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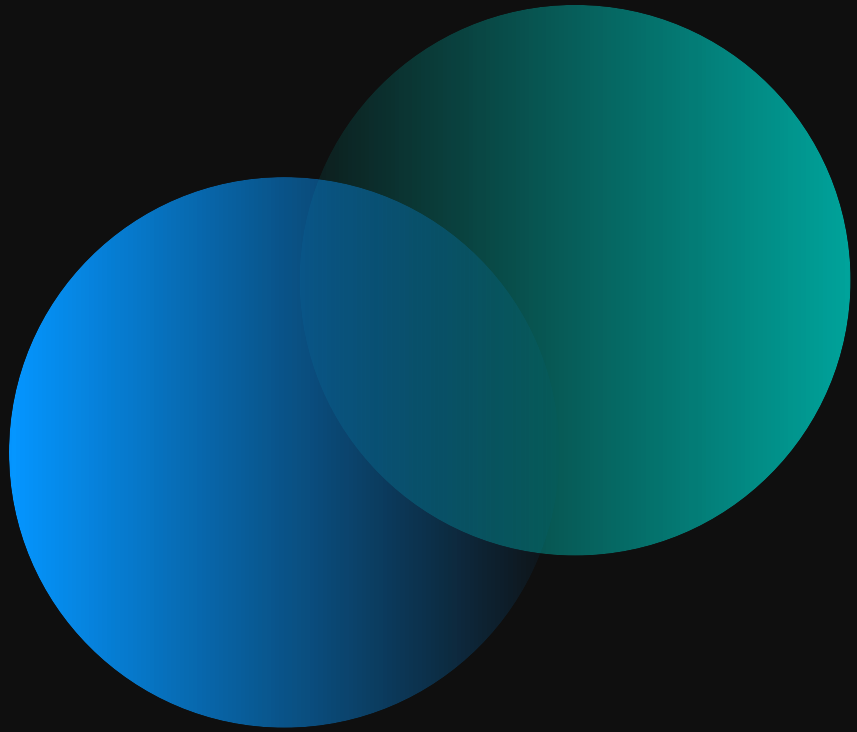
01 L’importanza di raggiungere il “Net Zero”

Fabio De Pasquale



Carbon Footprint

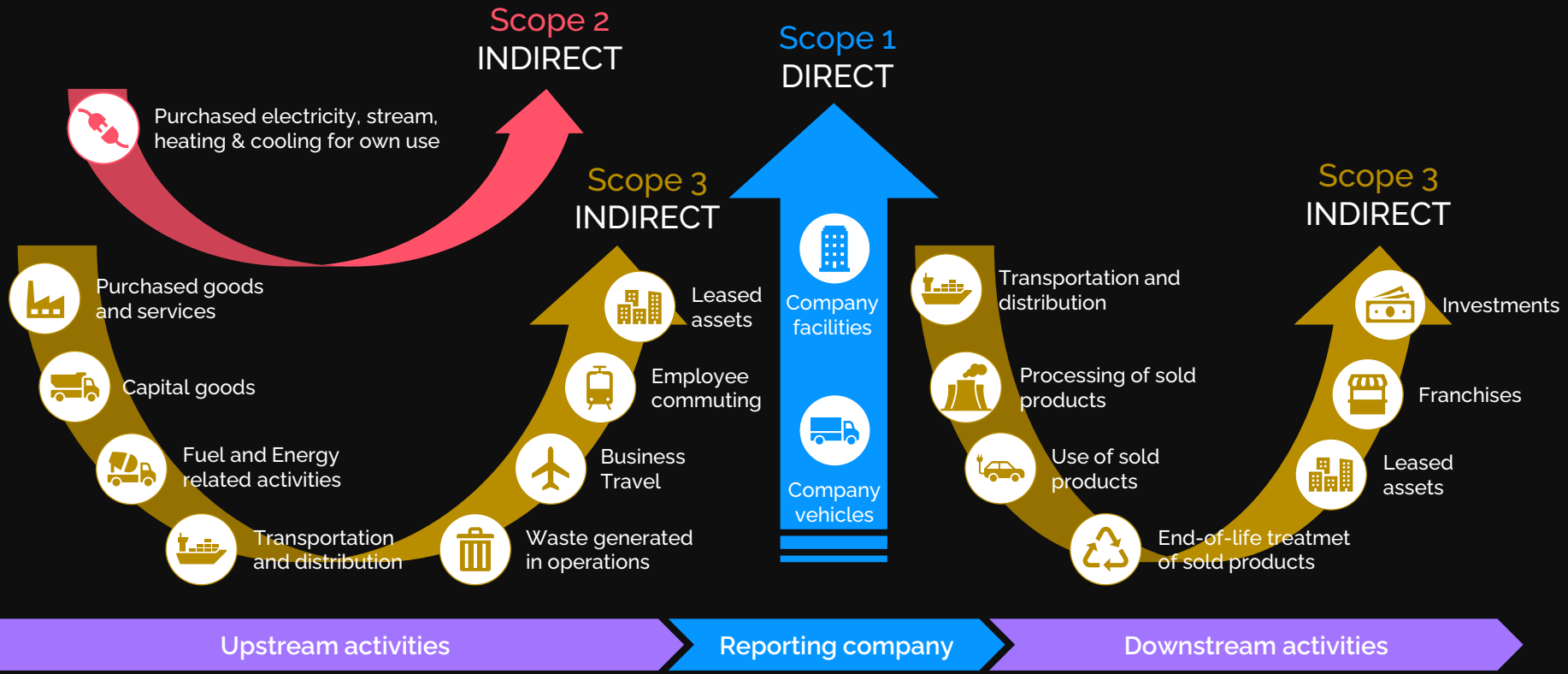
The total amount of greenhouse gases that are generated by our actions.

Net Zero

The state in which the greenhouse gases going into the atmosphere are balanced by removal out of the atmosphere.

Types of emissions

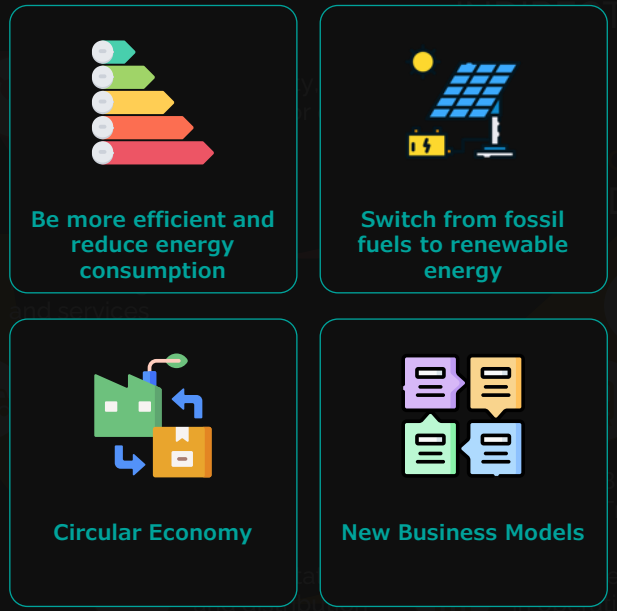
Carbon footprint calculation

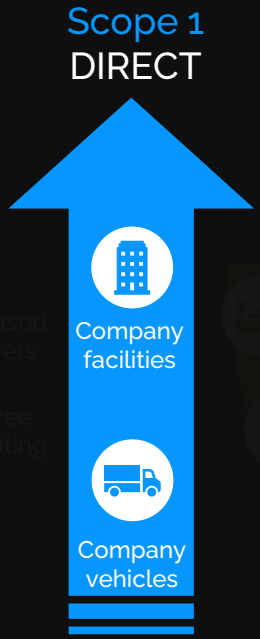


Source: GHG Protocol

Scope 1 emissions

The main high-level strategies to achieve the Net Zero in 2022





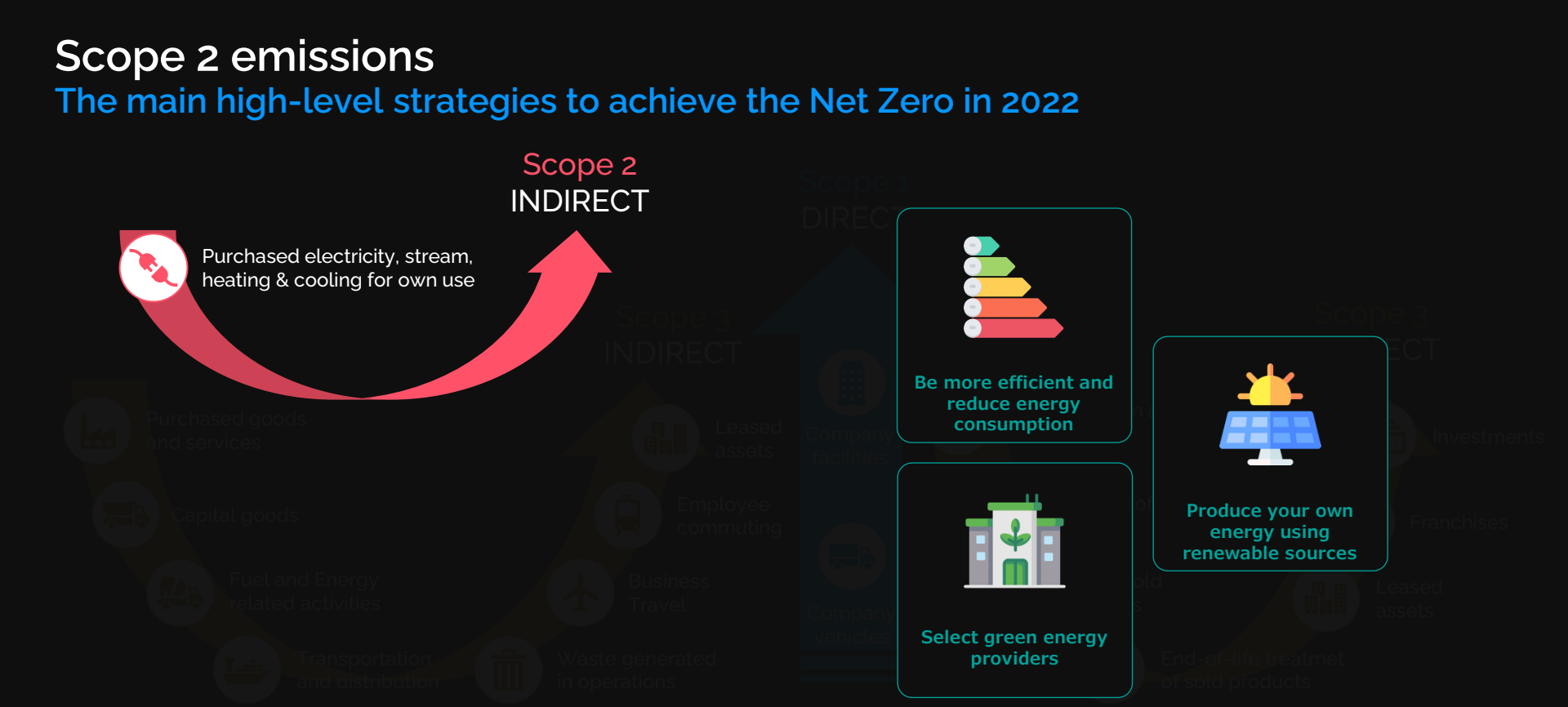
Upstream activities | Reporting company | Downstream activities

Scope 2 emissions

The main high-level strategies to achieve the Net Zero in 2022

Scope 2
INDIRECT

Purchased electricity, stream, heating & cooling for own use



Be more efficient and reduce energy consumption

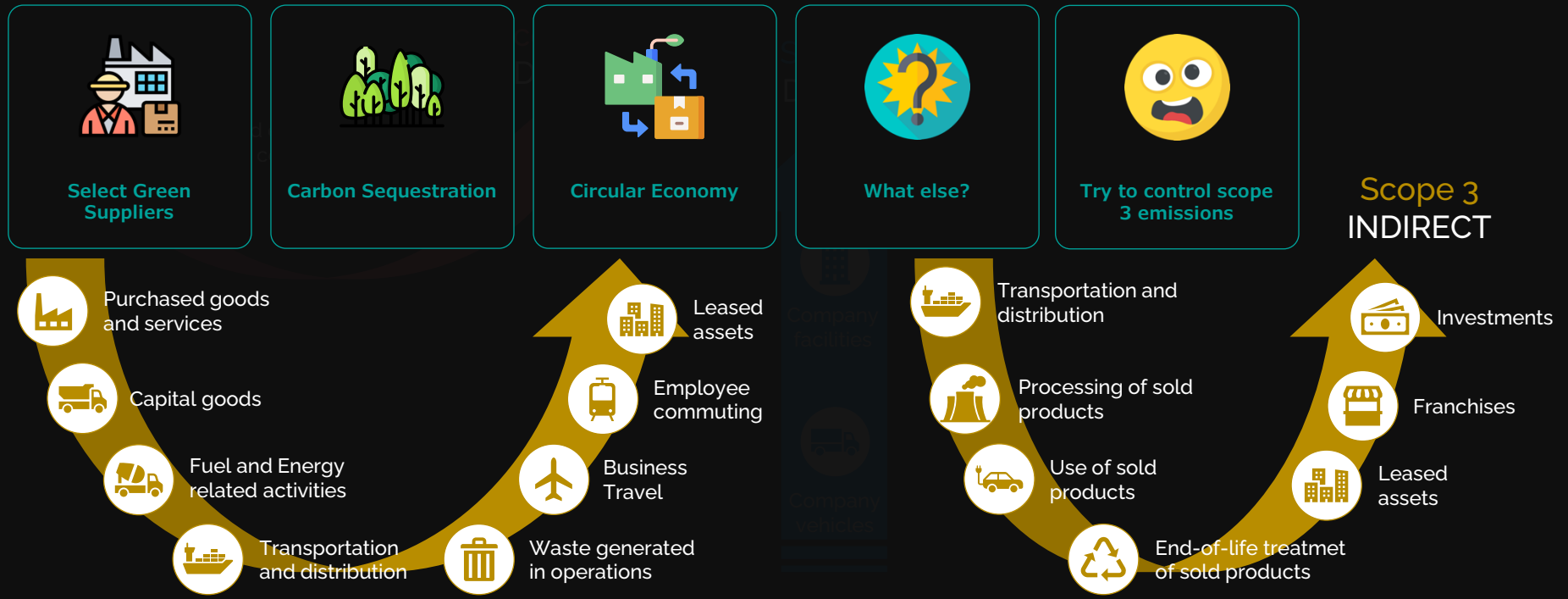
Produce your own energy using renewable sources

Select green energy providers

Upstream activities | Reporting company | Downstream activities

Scope 3 emissions

The main high-level strategies to achieve the Net Zero in 2022



3 Steps to control scope 3 emissions

Technology as enabler

Connect & Capture

- Connectivity
- IoT
- Connected Products & Assets
- Connected Tools
- Connected Consumers
- Connected Transportation
- Connected Factories
- Connected Waste Management System
- Connected Workers

Analyze & Use

- Artificial Intelligence
- Cloud & Edge Computing (Hybrid Cloud + Multicloud)
- Innovation
- Fast Scale-up

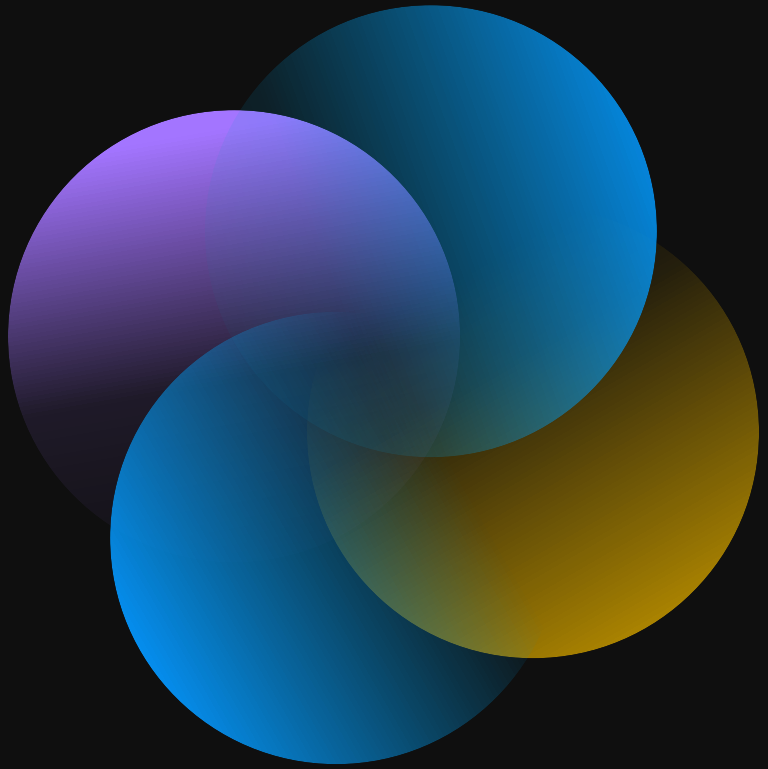
Share

- Cyber security
- Trust & Trusted netwoks
- GAIA-X
- Data sovereignty
- Traceability

02

La strategia di Atos per combattere il cambio climatico

Fabio De Pasquale



Why Sustainability and How to be Sustainable

Beyond Obligations

WHY

- Legislative obligations
- Business Continuity
- Sustainability Monetization
- Digital Transformation Opportunity

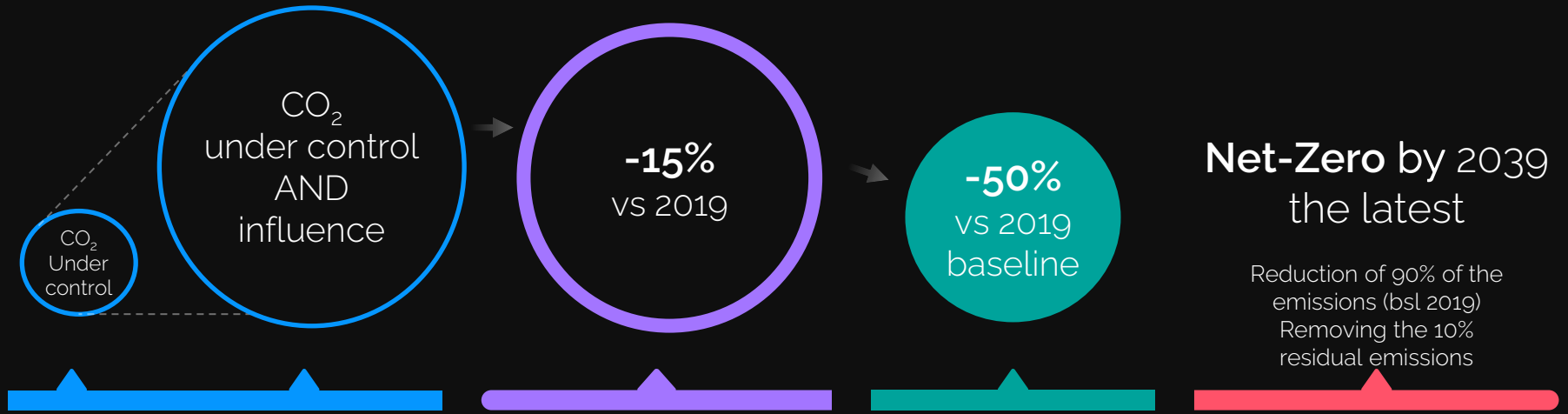
HOW

- Calculate your Carbon Footprint & Sustainable Maturity Level
- Set Objectives
- Define your Strategy and Make a Plan
- Check the result of your actions and improve

Atos

Pioneering decarbonization

Atos carbon emissions



Carbon neutral since 2018

Of which:
–10% structural
–5% Covid-19 impact

Reaching SBT milestone 5 years in advance

Reaching Paris agreement 11 years in advance

Dedicated to a sustainable future

Undisputed industry leader

Sustainability Award
Silver Class 2022
S&P Global

CDP
DISCLOSURE INSIGHT ACTION
A LIST
2021
CLIMATE

PLATINUM
Top 1%
2021
ecovadis
Sustainability Rating

FTSE4Good

CDP
SUPPLIER ENGAGEMENT LEADER
2021

Pioneering secure and decarbonized digital

- Unique decarbonization expertise on carbon footprint management decarbonization assessments and introduction of contractual DLA (Decarbonization Level Agreement)
- Support our customers in their Net-Zero journey
- Deep knowledge in decarbonization enabling technologies: IoT, cloud, AI and analytics and digital twins
- Best-in-class green HPC servers and data centers
- Open ecosystem of partners

Atos NetZero Practice

Decarbonization Centers of Excellence
Barcelona - London – Lyon – Munich - Paris
Montreal – New York - Chennai - Singapore
ecoact
an atos company

Scaler "The Accelerator" Atos
Atos Startup's program

tier 1
circular computing™
Greenspector
planA

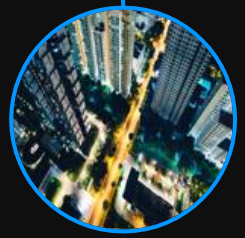
Atos

A journey to achieving NetZero

Solutions for transformation

New focus beyond IT » Decarbonized focus for IT » Decarbonized industry focus » Residuals addressed »

Innovation



SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

https://sciencebasedtargets.org/companies-taking-action

Determine Strategy

- Measurement and SBT ambition setting
- Risk and opportunity analysis
- Data Management
- Assessments
- Atos CRaFT©

Reducing IT Footprint

- Utilizing HPC, IoT, Edge and Quantum Computing
- Sustainable Cloud Computing
- Intelligent Collaboration
- Decarbonization Level Agreements

Reducing Business Impact

- **Design:** Green PLM, Sustainable Sourcing, Simulation…
- **Make:** Supply Chain, Logistics, Sustainable Purchasing, Green Factory, Digital Twin…
- **Re-/Use:** Circular Economy Platforms, Smart Waste Management…

Offsetting

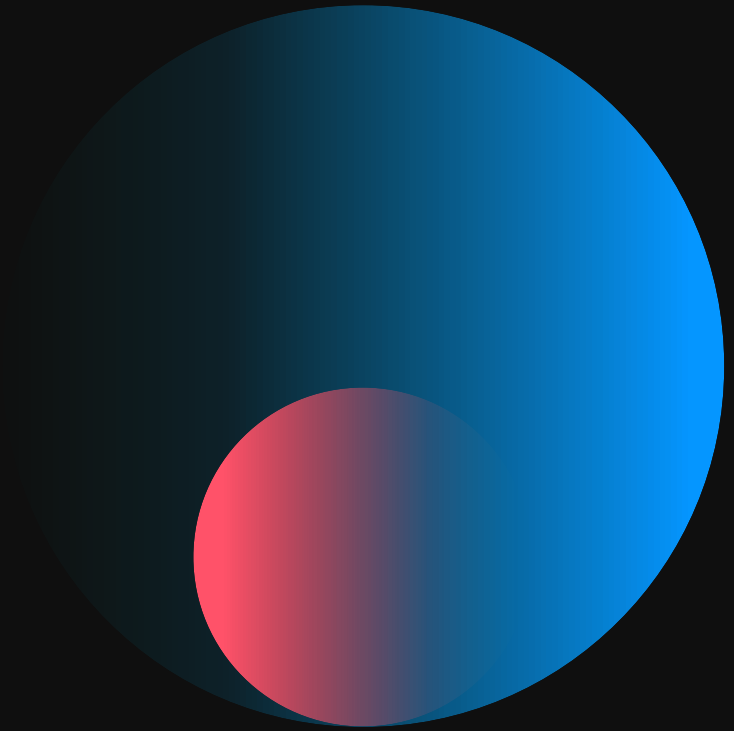
- Offsetting residual emissions
- Project Development
- Nature based solutions

+ Climate Communications

Atos

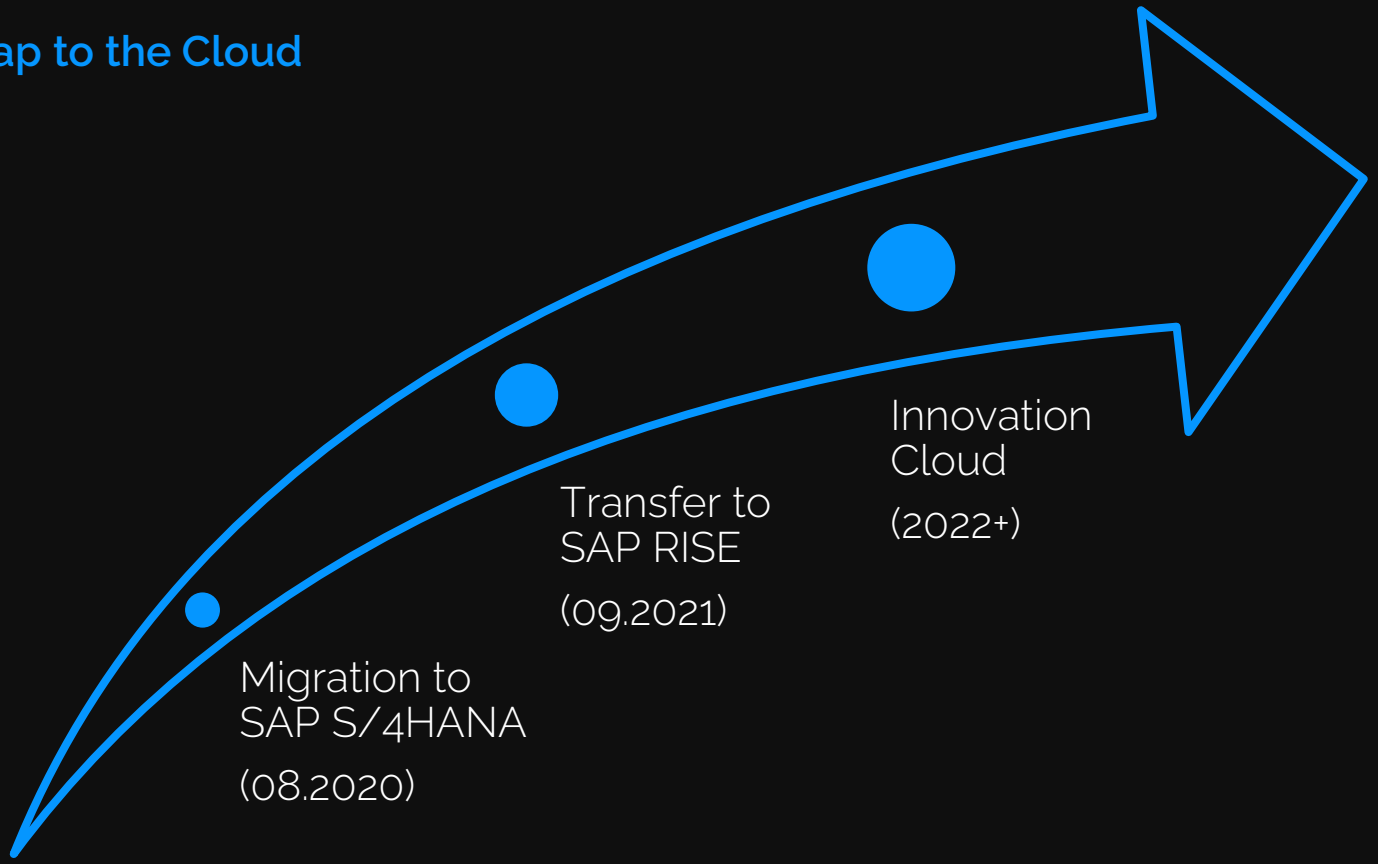
03 La migrazione di Atos a RISE with SAP

Lorenzo Brusco



Atos IT

SAP Roadmap to the Cloud



Migration to SAP S/4HANA

Reasons for the change beside positive impact on Carbon Footprint

Transfer Atos ERP (Nessie) to SAP RISE

Why launch this programme at Atos ?

The transformation of Atos, launched in 2019, to become more customer-centric, is based on the establishment of industry vertical.

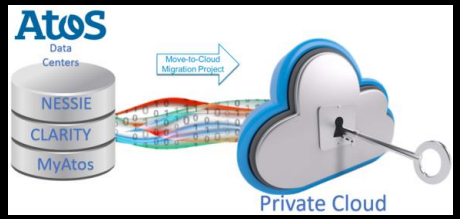
The transition to the cloud offers speed, flexibility and innovation to support this transformation.

This flexibility enabled by the cloud was also essential during the COVID crisis.

Atos' SAP ERP (Nessie) was previously hosted in 2 data centers in France.

In the target model, the group's ERP is hosted in a private Microsoft Azure cloud, running on dedicated Atos Sequana servers located in Frankfurt (DE).

The infrastructure layer will be technically managed by SAP and Microsoft, while Atos will continue to functionally manage the applications.



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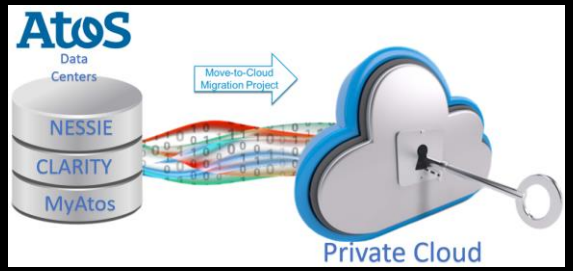
Transfer Atos ERP (Nessie) to SAP RISE

Why SAP RISE ?



Moving to a RISE private cloud offers Atos more capability than on-premises infrastructure, with the financial benefits of OPEX versus CAPEX.

As a one-stop-shop offering, like Atos OneCloud, SAP RISE provides a complete solution while maintaining flexibility.

This solution provides a scalable platform while maintaining our key SLA / RPO criteria :

- 99.7% application level service level agreement (SLA) *
- Recovery Point Objective (RPO) very close to 0 (30')

And the move to RISE also helps Atos meet its decarbonization targets.

(*) SLA calculated excluding planned outages (4h per month)

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Transfer Atos ERP (Nessie) to SAP RISE

How this migration organized ?

Contract with SAP changed :

- Change from a 'single metric' licence agreement to a Cloud PCE & HEC agreement
- Retain a small licence agreement for components remaining on site

Hosting will be on Azure – SAP manages the whole relationship with Microsoft

Database servers are Atos Bull Sequana-S bare metal physical servers while other systems are virtualised

- The physical Bull Sequana servers allow for base sizes of up to 12TB in scale-out

Pre-requisites :

- Systems to be migrated to SAP SGDBs as part of the move (no related systems in Oracle or other)
- Numerous technical updates to be carried out to be at the level of the supported version (in SAP Cloud)
- Hub & Spoke architecture where Atos runs its own Azure Hub
- Interconnection based on ExpressRoute connectivity

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Atos IT on SAP RISE

Results and next steps

Platform migrated to SAP Rise in 9 months (December 2020 to September 2021)

- Progressive migration of environments to a fully transparent go-live for business teams

Next steps

- Finalize migration (project systems, DRP testing, decommissioning of on-premise systems)
- Activation of native SAP or other cloud bricks (link to Office 365)
- Review of customizations and return to S4/HANA standard using BTP for specifics

04 Atos Product Footprint with SAP

Lorenzo Brusco

SAP Product Footprint Management

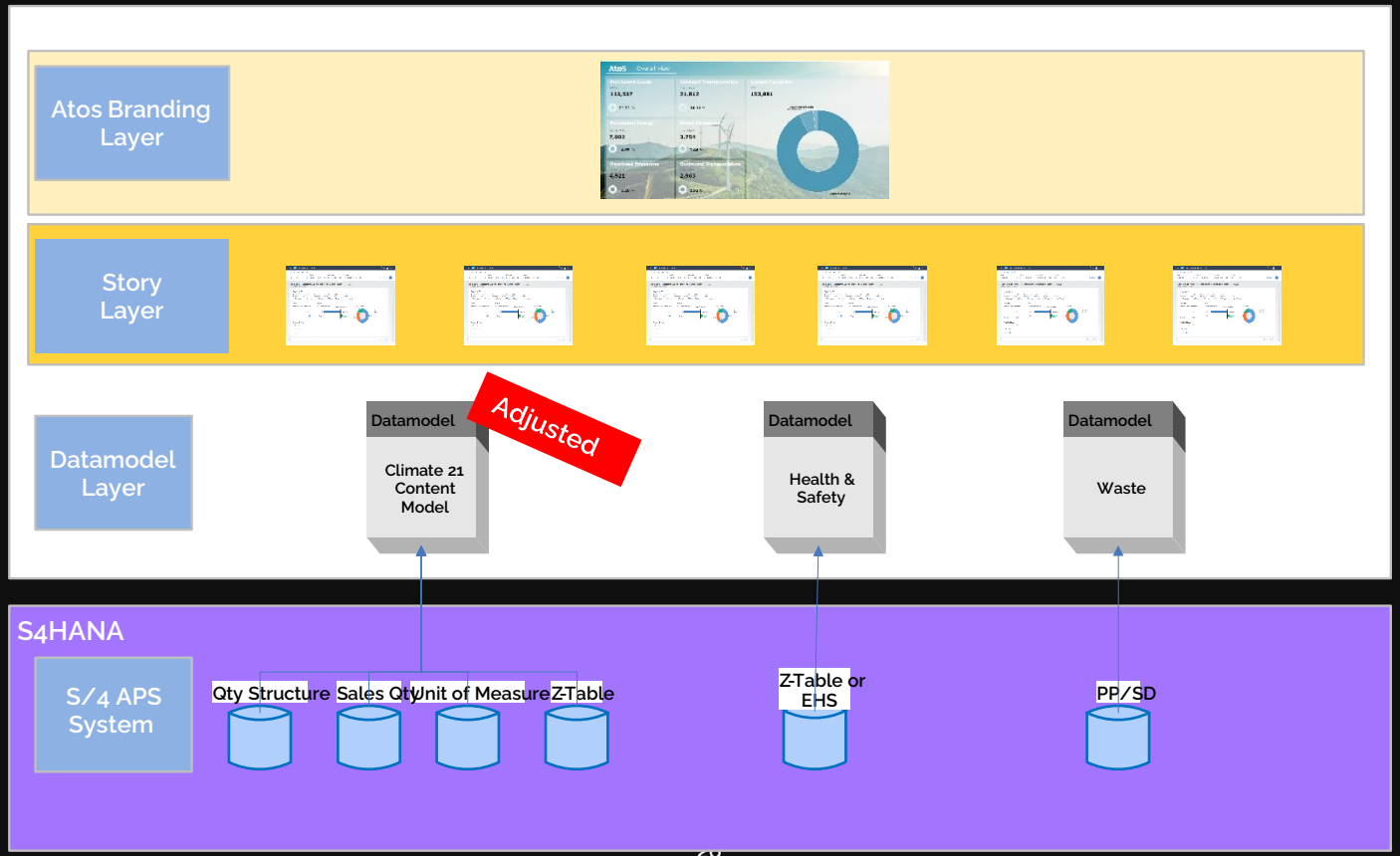
"Calculate product footprints at scale considering the entire product lifecycle for disclosure and internal product optimization"

SAP Product Footprint Management enables integration scenarios to collect business activity and master data from SAP business applications such as SAP S/4HANA as primary source for footprint calculation and further integrates the calculated footprints back into the relevant SAP S/4HANA end-toend processes. By providing this data-driven approach, SAP is enabling businesses to embed sustainability comprehensively and to gain actionable insights across the entire value chain, supporting the transition to low carbon business processes.

Atos

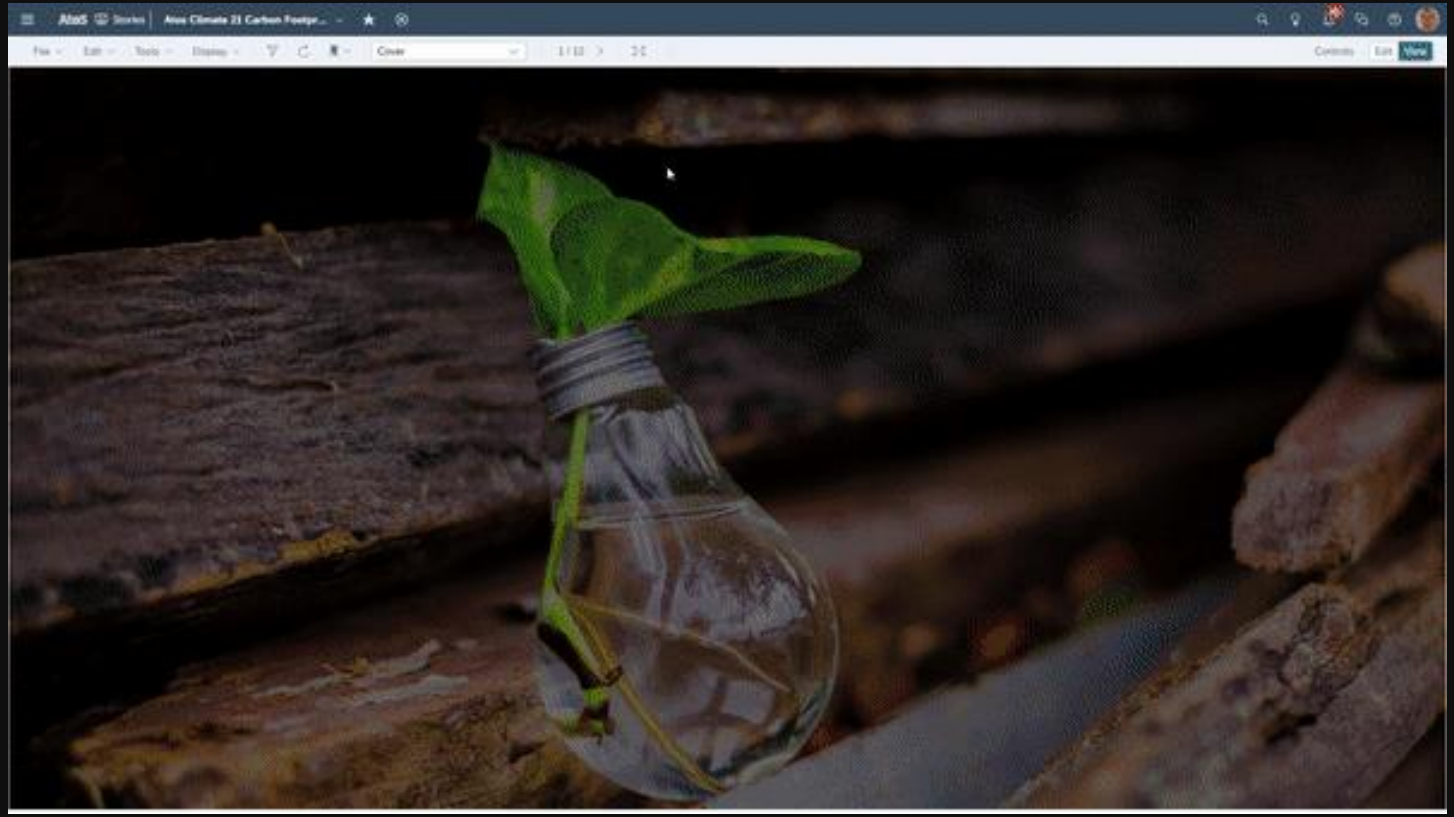
CARBON FOOTPRINT ANALYTICS @ATOS

Powered by SAP Analytics Cloud



CARBON FOOTPRINT ANALYTICS @ATOS

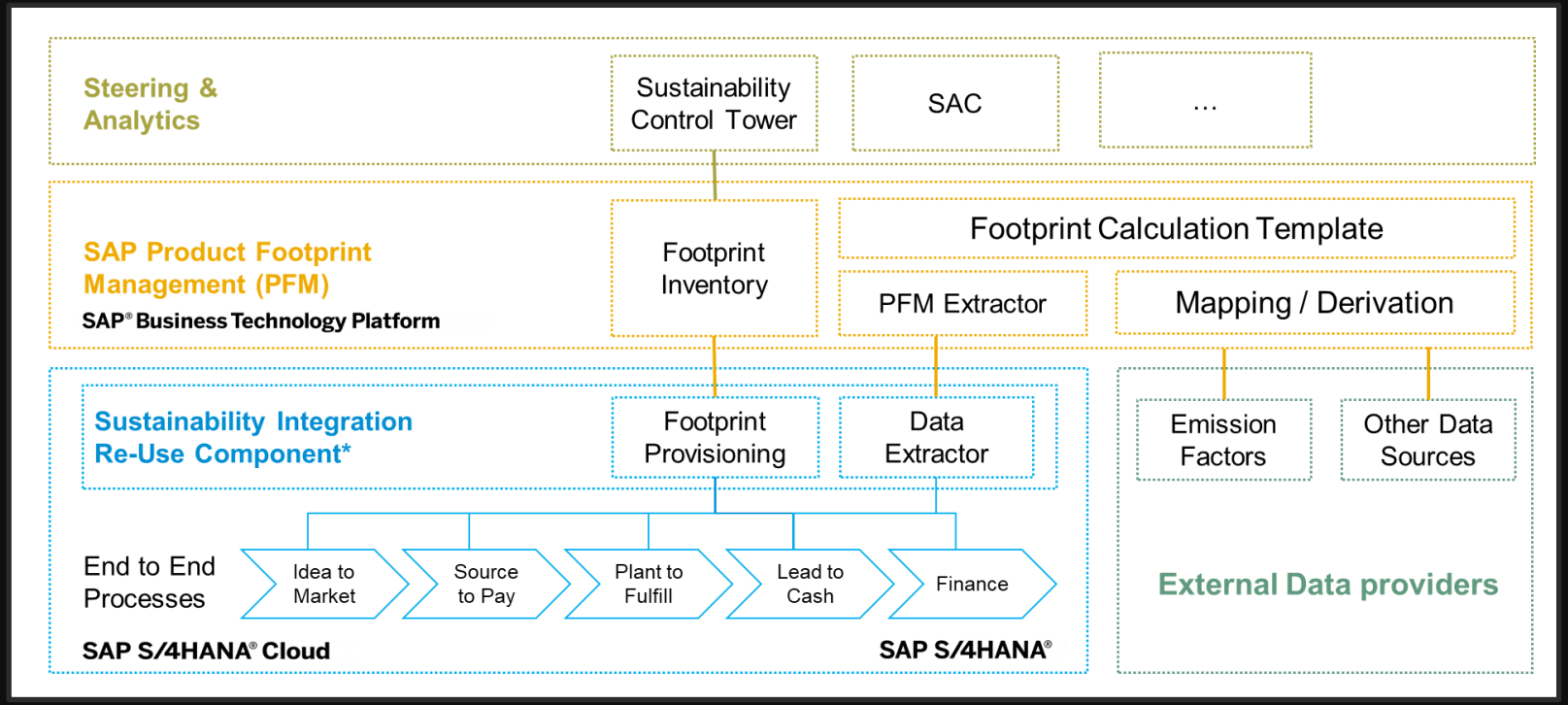
Powered by SAP Analytics Cloud



SAP Product Footprint Management

Business Architecture

SAP PFM is meant to be integrated with an SAP-system to unfold the full functionality.



SAP Product Footprint Management

Main Features

Data Acquisition

Integration scenarios enhancements for S/4 HANA, EHS missions, CO cost estimates +, other application

API for enhanced master data and business activity replication

Emission Factors Mgmt.

Integrate Supplier Emission Factors

Emission factor lifecycle management

Import emission factors from lifecycle assessment data

Enhance emission factor lifecycle management with direct access for content providers

Integration to LCA providers

Footprint Calculation

Maintain climate change footprint calculation template for purchased products
Association of products using emission factors from lifecycle assessment data
Enable on demand execution and monitoring of product footprint calculation
Calculation for manufactured products, considering scope 3 raw materials
Top-down allocation for production activities to manufactured products
Covering of Transport processes (inbound & outbound) with pre-defined emission factors Simulation Run / What if scenarios
Bottom-up calculation for production activities
Emission surcharges management according to Product Costing settings
Check data consistency and quality

Footprint Analytics

Analyze product footprints to gain new insights (API based)

PFM Content Delivery in Enterprise SAC

Embedded Analytics for operational footprint management

Holistic Analytics with SAP Sustainability Control Tower

Target Setting / Achievement Management

Footprint Integration

S/4HANA: Search and discover footprints (Plant, Material)

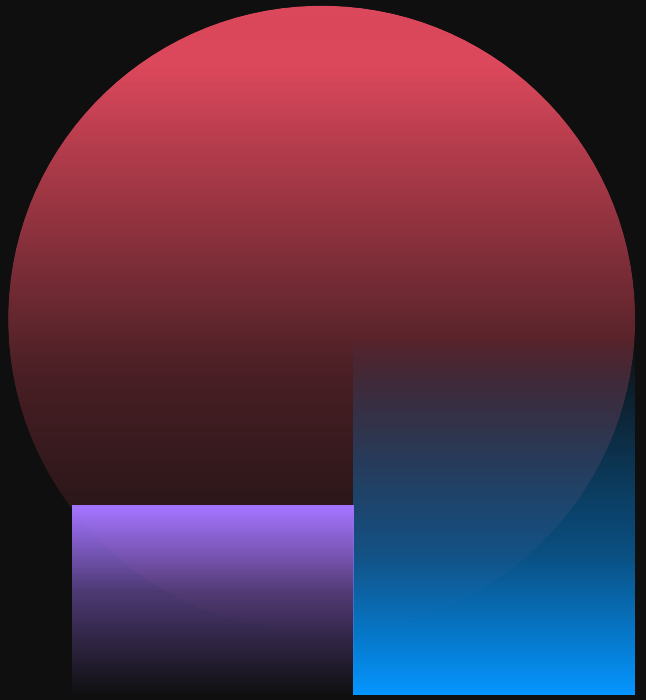
S/4HANA: Extend business processes with prod. footprints (Plant, Material)

Footprints (Plant, Material, Supplier)

05

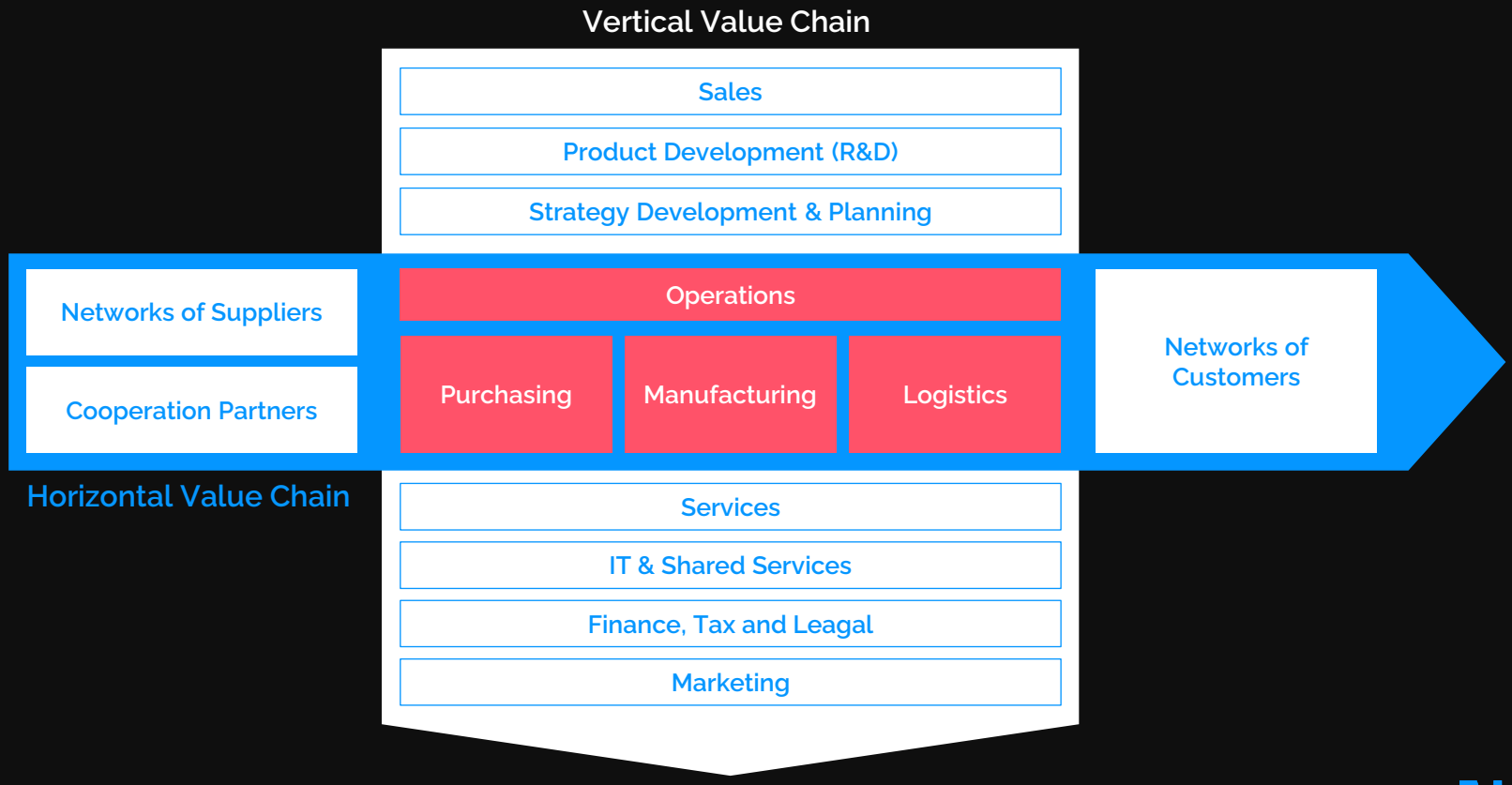
Atos Green Manufacturing with SAP

Fabio De Pasquale



Supporting the Entire Manufacturing Supply Chain

360° view



Sustainable Consumption and Production

Connecting, Cupture and Analyze Data

Sustainable Products → **Sustainable Production** → **Low Cost Products** → **Enterprise Development**

Initiate

- Sustainability master data alignments
- Deploy SAP Standard solutions from ECC and S/4 HANA
- Transactional processes within enterprise

Solutions: SAP EH&S Asset Management, Manufacturing execution, Plant operations

Collaborate

- Business partner collaboration: Purchasing, Logistics, compliance authorities, customers
- Validated business content for sustainable ecosystem
- Collaborative processes, end to end execution
- Automation to improve sustainability compliance

Solutions: SAP Ariba, Extended Warehouse Management, Transportation Management and Digital Manufacturing cloud, Ariba Commerce Automation

Monitor

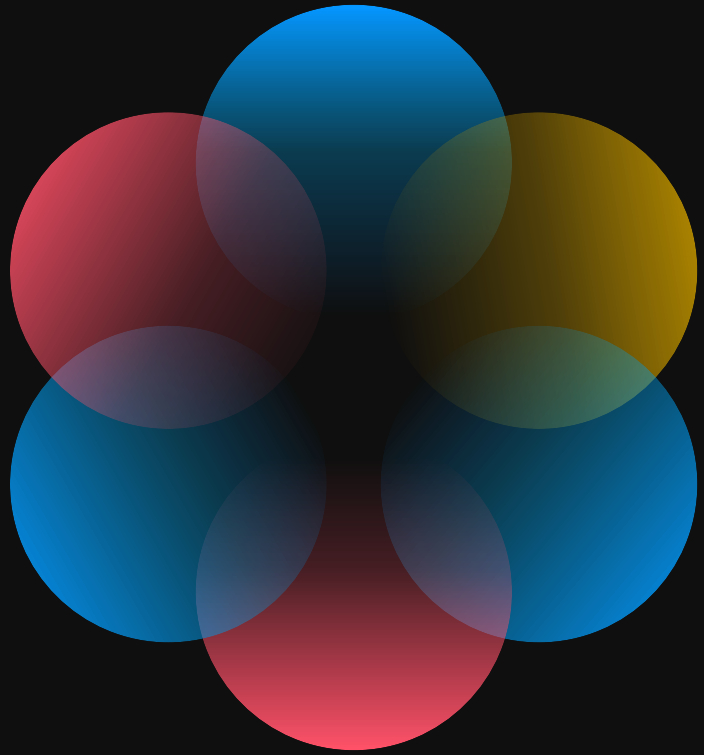
- Deliver Enterprise Sustainable governance integrated with application and business processes
- Continuous sustainability improvements
- Adoption of Climate 21 Roadmap

Solutions: Sustainability Performance management,
SAP Analytics solutions

Atos

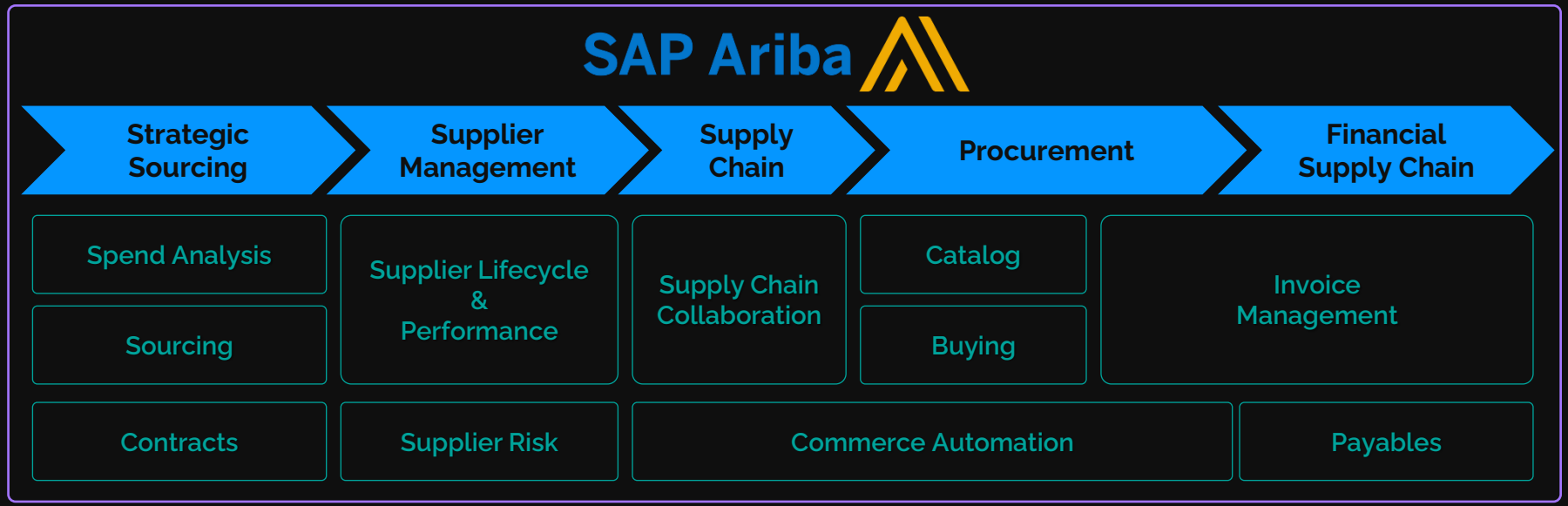
06 Atos Green Procurement solution with SAP Ariba

Matteo Montalto



Atos SAP ARIBA GREEN PROCUREMENT EXTENDED SOLUTION

Green processes for a sustainable procurement



Atos extension for Ariba on SAP BTP

SAP S/4HANA

Atos

Atos SAP ARIBA Green extension using SAP Platform

Side by side extension to keep the Core clean

Supplier Selection

SDG parameters addition in supplier registration templates and related sustainability weighted score calculation.

Provides SDG main criteria for supplier evaluation in SAP ARIBA.

Sustainable Sourcing

Enhanced Ariba Sourcing template to support additional questions in RfP under the available Sustainability sections:

- Social Sustainability;
- Environmental Sustainability;
- Economic Sustainability.

Pre-graded evaluation or manual review by agent.

Guided Sourcing

Enhanced Ariba Guided Sourcing template to support additional sections and related questions in RfP concerning:

- Environmental Sustainability;
- Social Sustainability;
- Governance.

Pre-graded evaluation or manual review by agent.

--=Work in Progress=-

- Supplier risk evaluation from sustainability indicators;
- Addition of sustainability values in Supplier Catalogues (both material and services);
- Modification of requisitions based on SDG thresholds parameters in standard terms & conditions;
- Addition of sustainability parameters in contract terms through BTP via Ariba API;
- Integration of SAP SAC and SAP PFM for CF - related data storage

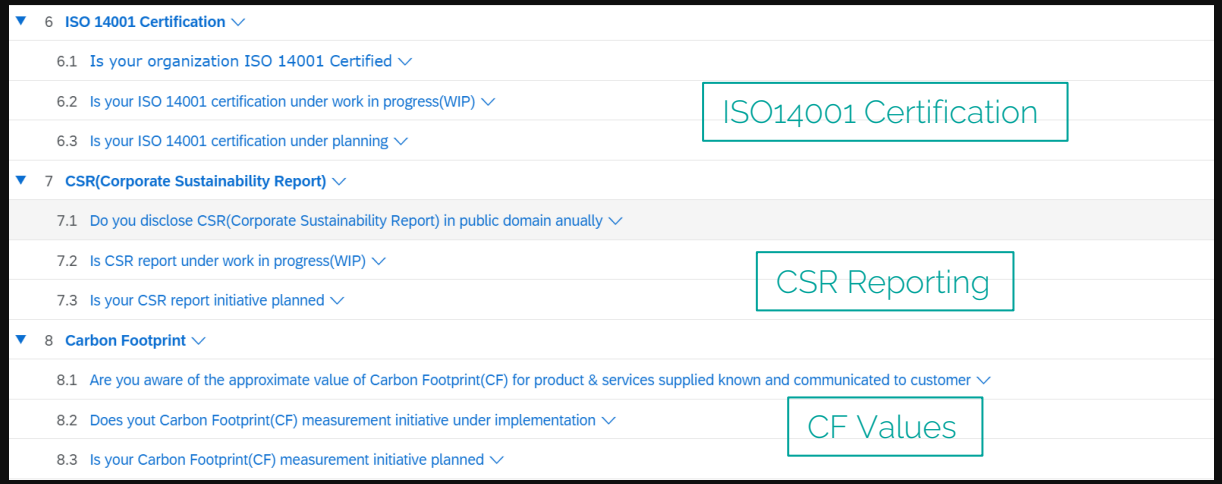
35

Atos SAP ARIBA Green extension for Supplier Registration (1/3)

Supplier registration – Sustainability sections

Ariba process: Supplier Selection

BTP Extension: Sustainability weighted score calculation

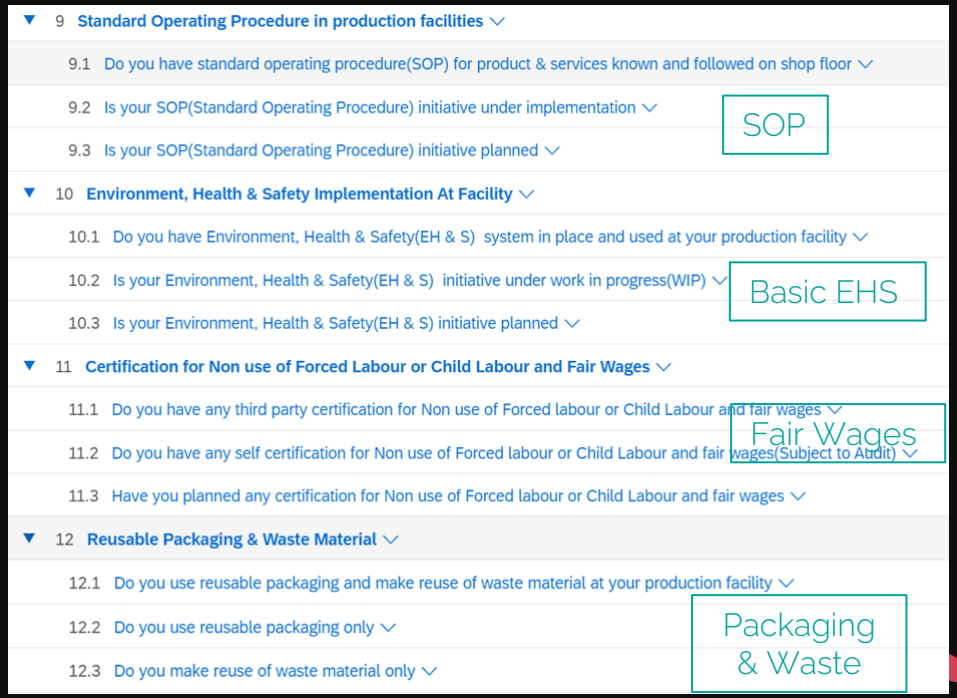


Target: extend supplier selection parameters to evaluate SDG goals in Supplier Registration template.

A combined weightage average score for SDG Parameters is calculated through a BTP implementation and injected on the process through Ariba APIs.

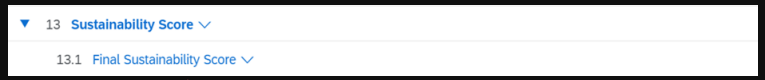
Atos SAP ARIBA Green extension for Supplier Registration (2/3)

Supplier registration – Sustainability Score



Addition of Sustainability evaluation scoring in Supplier Registration and selection processes

The Sustainability Score is calculated by means of a SAP BTP routine implementation and synchronized with Ariba solution by means of its API.



POWERING SAP BTP

Atos

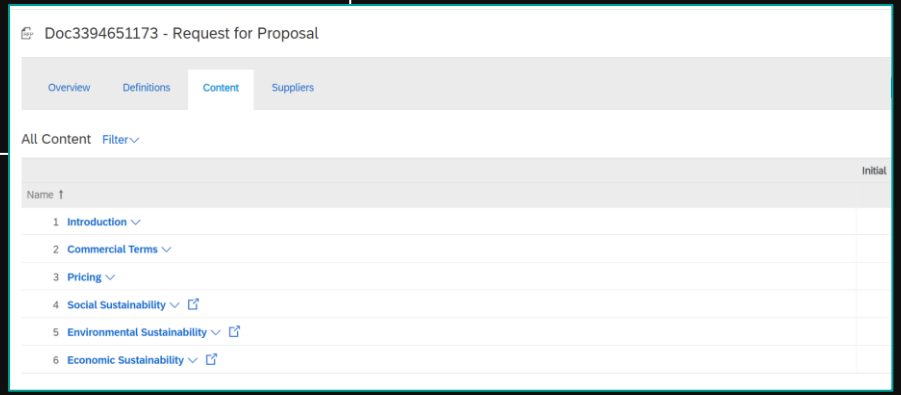
Atos SAP ARIBA Green extension for Sustainable Sourcing (1/3)

Sourcing Template extension

Ariba process: Sourcing – Request for Proposal

SAP Ariba Sourcing RfP template extension by the addition of questions organized in three sections:

- Social Sustainability;
- Environmental Sustainability;
- Economic Sustainability.



Target: extend Ariba Sourcing template through additional parameters under newly created Sustainability sections.

Atos SAP ARIBA Green extension for Sustainable Sourcing (2/3)

Sourcing Template extension

Social Sustainability

- Workplace SOP availability;
- Workplace safety measures;
- First aid availability;
- Periodic health check of employees

Name
Do you have standard operating procedure(SOP) for product & services known and followed on shop floor
Do you have Environment, Health & Safety(EH & S) system in place and used at your production facility
Do you have first aid availability in place and used at your production facility
Do you conduct periodic Health check of your employees

Economic Sustainability

- Adesion to non use of forced labour and child labour
- fair wages

Name
Do you follow non use of Forced labour or Child Labour and fair wages

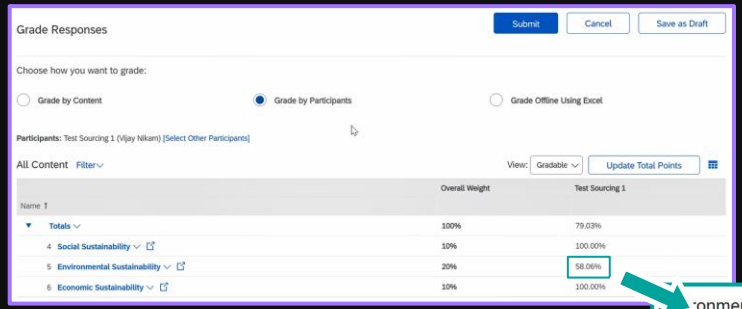
Environmental Sustainability

- CF awareness;
- Energy consumption;
- Usage of recyclable packaging;
- Safe waste removal & reduction plan

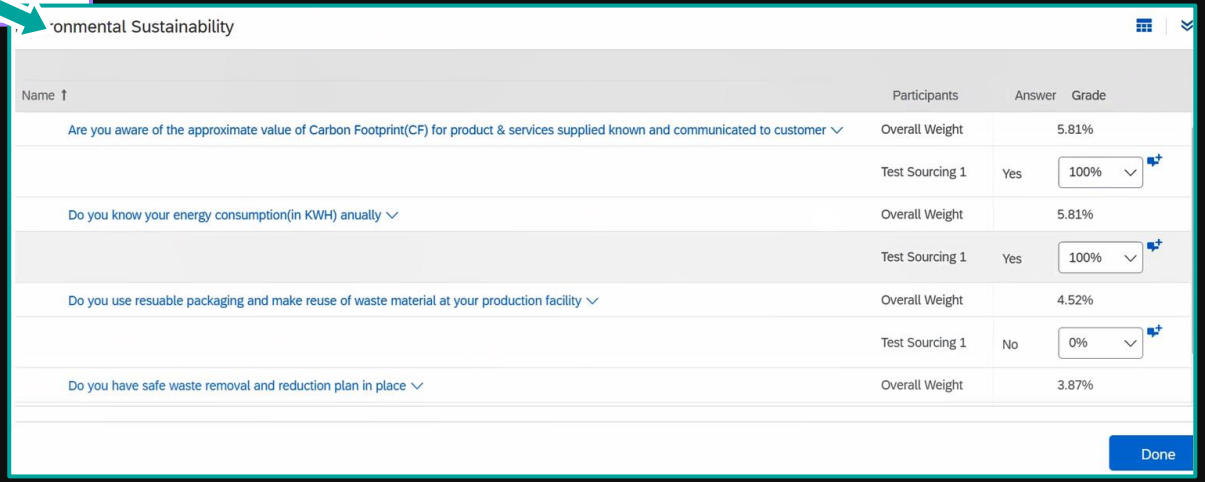
Name
Are you aware of the approximate value of Carbon Footprint(CF) for product & services supplied known and communicated to customer
Do you know your energy consumption(in KWH) anually
Do you use resuable packaging and make reuse of waste material at your production facility
Do you have safe waste removal and reduction plan in place

Atos SAP ARIBA Green extension for Sustainable Sourcing (3/3)

Sourcing Template extension



Pre-grading or manual evaluation by agents supported



Each section score, for each RfP participant, can be exploded in details to get a clear picture of:

- Answers provided;
- Weight of each question relative to the entire questionnaire;
- Grade per each question.

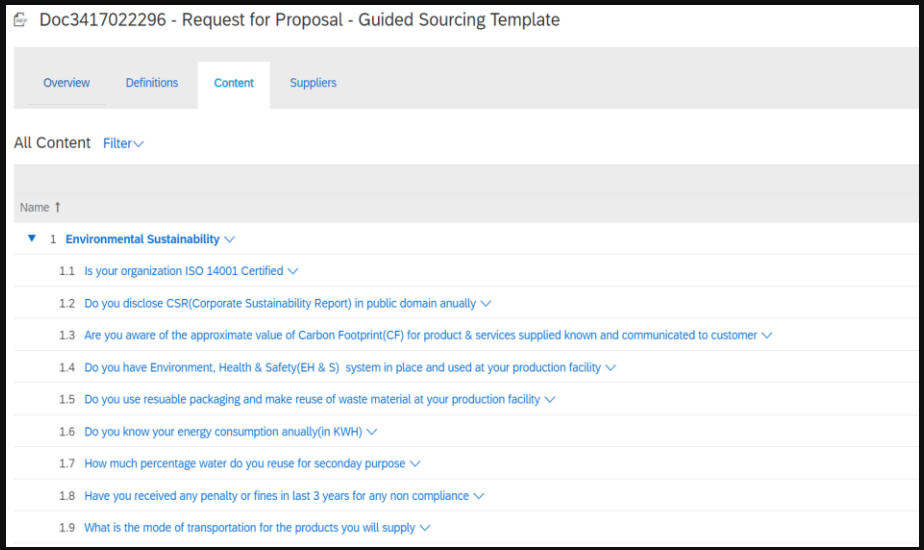
Atos SAP ARIBA Green extension for Guided Sourcing (1/2)

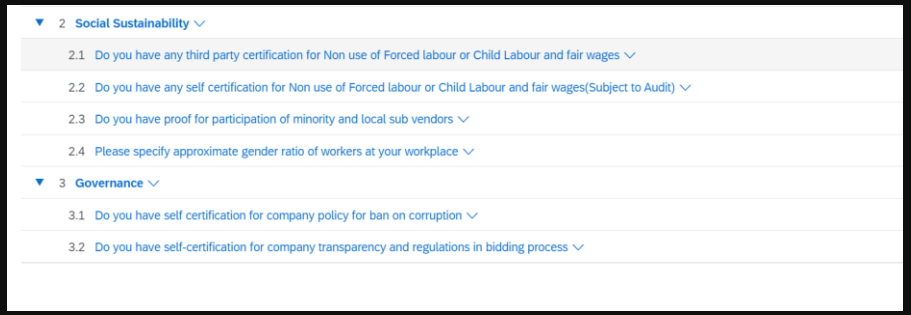
Guided Sourcing Template extension

Ariba process: Guided Sourcing – Request for Proposal

SAP Ariba Guided Sourcing RfP template extension by the addition of questions organized in three sections:

- Environmental Sustainability;
- Social Sustainability;
- Governance.





Atos SAP ARIBA Green extensions using SAP Platform

Work in progress

Ariba process	BTP Extension	SDG Parameters added	Benefits
Supplier Risk and Performance management	Risk evaluation from new sustainability indicator	New SDG parameters-Geopolitical, Epidemic and others, Risk categorization	Buyer gets initial as well as residual risks. Helps in Identifying low risk and stable vendors.
Buying/Procurement	Material Suppliers Catalogues with CF and other main SDG parameters Modification of Requisition based on SDG thresholds parameters in standards terms and conditions.	Carbon footprint value ,waste disposal , energy consumption. water reuse ,penalty	Standard buying procedure will all technical , economical and sustainability values. Decision making based on sustainability score before order is placed.
Buying and Purchasing extension for Services	Service Suppliers Catalogues with main SDG parameters Service PO/contracts modification Service Purchase order controls based on SDG threshold value	EMS or similar service standard compliance, Basic EH&S system in place for services, Waste disposal and management Energy consumption (KWH) annually, Water reuse % for secondary purpose	Standard buying practices for services. Service sustainability values for comparison. Sustainability terms and conditions. Decision making based on sustainability score before order is placed.
Paperless contract management.	Adding sustainability parameters in contract terms through BTP via ARIBA API	ESG parameters in contract terms with automated workflow and approval	Documents with electronic signatures reducing the lead and processing time. Add contract terms for individual contract instead of global template.
Integration of SAP SAC for SAP PFM for storing all CF related data	No BTP extension. Direct integration with SAP SAC ,SAP PFM & SAP ECC (Phase 2)	All transactional data for SDG and Non-SDG extracted for dashboard and analytics	Uniform and consistent reporting and dashboard, easy decision making, monitoring and control.

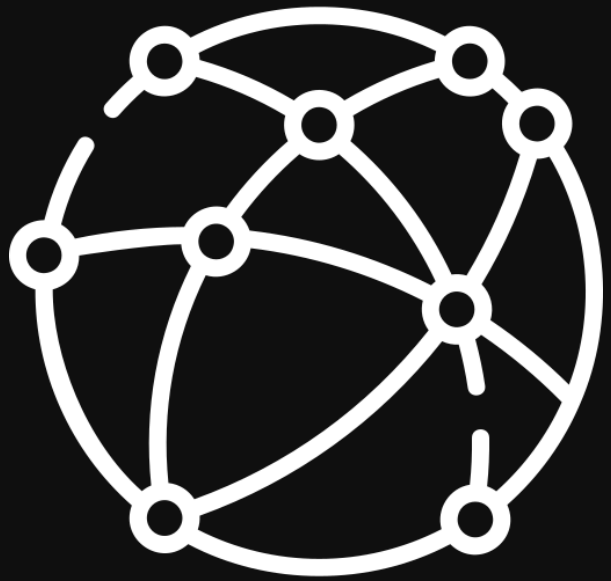
07

Atos più vicini ai clienti, dalla nuova sede Atos di Bologna

Giampaolo Amadori

Atos

leader globale
nella trasformazione digitale



in Italia

1500 dipendenti - +400 in periodo Covid-19

5 sedi in Italia

+15% di crescita annua

Oltre 550 esperti SAP

Great Place to Work

Ricerca e innovazione

Decarbonizzazione

Great place to work

a Bologna e in Emilia-Romagna

Nuova sede dal 2021

A breve, nuova sede a BI-REX

Ricerca & Innovazione: *AI, IoT, Data Driven Solutions, Digital Twin*

Tecnopolo: *ECMWF, Cineca*

Occupazione e formazione

Cultura digitale

Crescita territoriale

Great Place To Work. Certified NOV 2021–OTT 2022 ITALIA

Atos

emilia

ALMA MATER STUDIORUM A.D. 1088

CINECA

iFAB

Atos

Il TECNOPOLO di Bologna e la DATA VALLEY della Regione E.R.

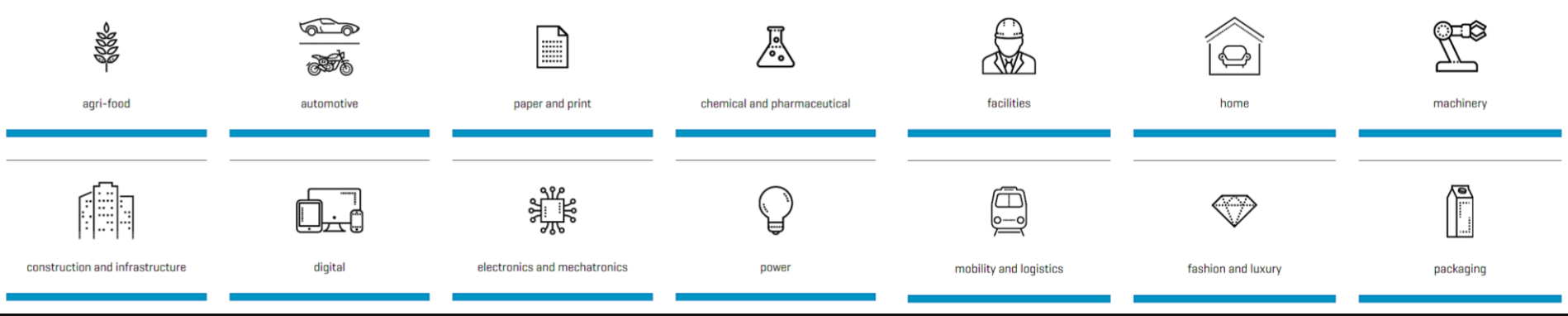
HUB dello HPC a livello Europeo e Infrastruttura per la AI

- The ECMWF (European Center for Mid-range Weather Forecasts) data centre and supercomputing (inaugurato 14/09/'21)
- The LEONARDO pre-exascale supercomputing of EuroHPC Joint Undertaking/ **CINECA**
- IFAB International Foundation Big Data and Artificial Intelligence for Human Development
- The INFN data centre towards extreme HPTC
- The Italian National Meteo Agency
- National Agency for Energy and Environment-ENEA Research Centre
- IOR (Istituto Ortopedico Rizzoli) BioBank Centre
- CN del Supercalcolo, Simulazioni e Analisi dei Dati al alte prestaziioni (previsto dalPNRR)

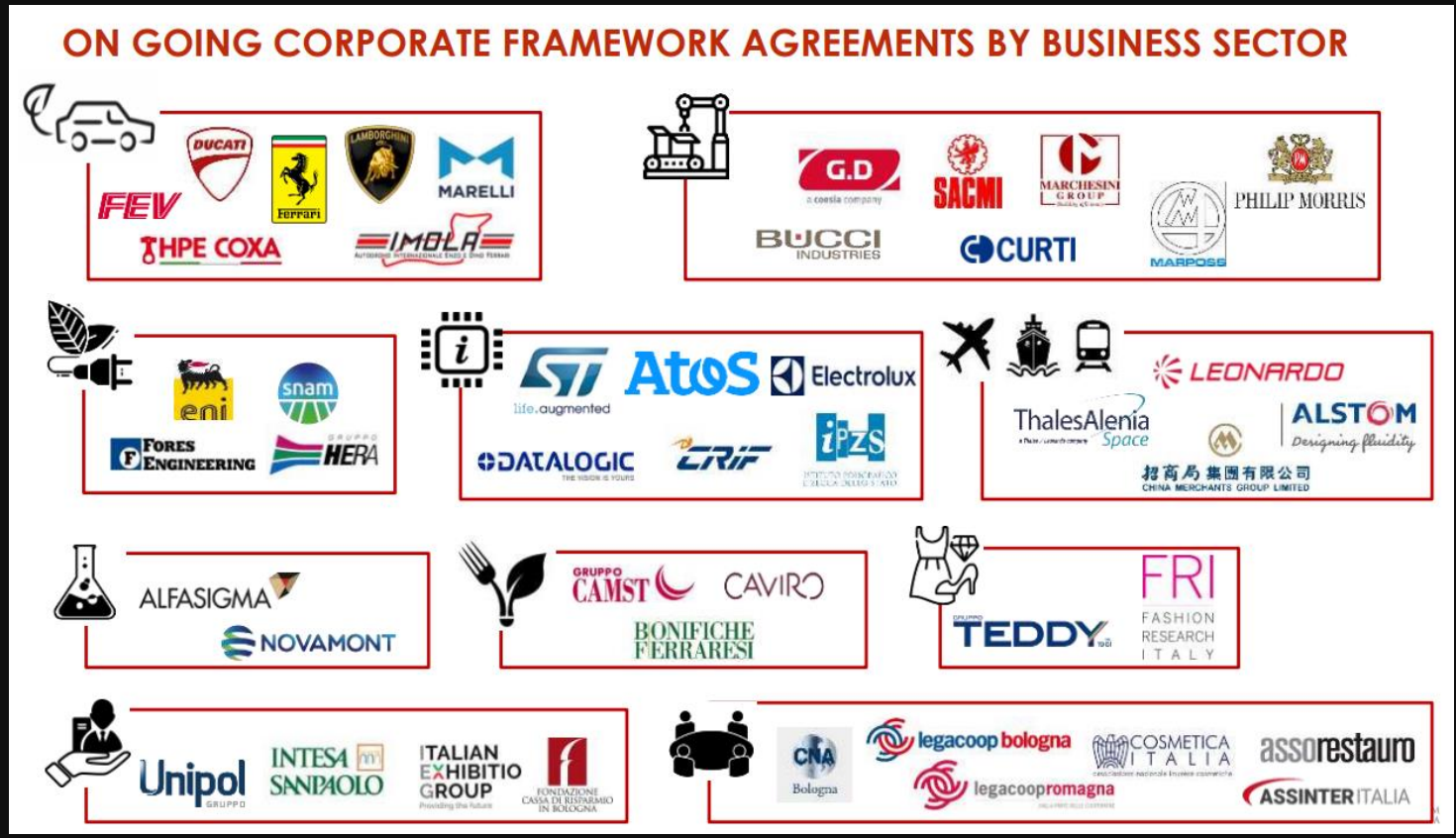
Confindustria Emilia Centro

- Confindustria EMILIA CENTRO: associazione delle imprese che rappresentano le più important aziende delle province di Bologna, Modena eFerrara; il terriotrio più ricco della Regione Emilia-Romagna Region e dove la maggior parte delle imprese “automobilistice” sono nate
- > 3200 Imprese Associate per un totale di > 180.000 Dipendenti;

- 20 FILIERE/ Supply Chains: AUTOMOTIVE, Digital, Electronics and Mechatronics, Machinery, PACKAGING, Industrial Vehicles, Mobility and Logistics, CERAMICS, AGRI-FOOD …



Accordo Quadro Atos – Università di Bologna



Ricerca: The European House – Ambrosetti e Atos , del 2021

The European House Ambrosetti

THINK TANK | MANAGEMENT CONSULTING | LEADERS' EDUCATION | SUMMIT

Atos

Verso una Net Zero Society: tecnologie e strategie digitali per un mondo a emissioni zero

Il ruolo della digitalizzazione nelle strategie di decarbonizzazione e le opportunità per l'Italia

Forum Finale di presentazione dei risultati

Phygital event, 20 ottobre 2021

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Non c'è vento a favore per chi non conosce il porto

The European House Ambrosetti

Atos

La missione del lavoro di ricerca

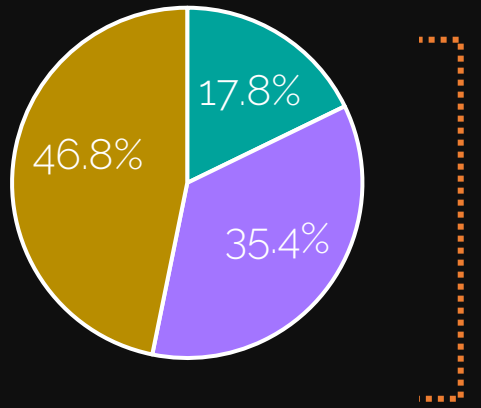
Indagare la relazione tra **tecnologie digitali e decarbonizzazione** per accelerare la costruzione di una **Net Zero Society**, comprendendo le relative opportunità per l'Italia, *in preparazione ai dibattiti di COP 26*

Il digitale contribuirà in maniera diretta o indiretta all'abbattimento del 53,2% delle emissioni italiane per raggiungere il Net Zero al 2050

Impatto diretto del digitale
-17,8% delle emissioni al 2050

Impatto indiretto del digitale
-35,4% delle emissioni al 2050

Contributo del digitale al processo di decarbonizzazione, % sul totale delle emissioni da abbattere nello scenario Net Zero 2050



53,2% emissioni abbattute in maniera diretta o indiretta

- Impatto diretto del digitale
- Impatto abilitato dal digitale
- Decarbonizzazione non digital

Fonte: rielaborazione The European House - Ambrosetti su modelli proprietari, 2021

The European House Ambrosetti

Atos

Ricerca: The European House – Ambrosetti e Atos , del 2021

Il Rapporto strategico

Il rapporto strategico contiene una riflessione di alto livello sul contributo del digitale al processo decarbonizzazione, sviluppando innovativi modelli volti alla quantificazione dell'impatto

L'indice del Rapporto

1. Verso una Net Zero Society
2. Lo stato dell'arte delle emissioni a livello globale
3. La trasformazione digitale per la Net Zero Society
4. Il digitale e la transizione verde: una sinergia da coltivare e fare crescere

Il rapporto è liberamente scaricabile online

The European House Ambrosetti

Atos

Thank you!

For more information please contact:

giampaolo.amadori@atos.net
Client Executive Partner – Manufacturing - ITALY
M: +39 (0) 338 680 7931

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