



Eni

SCALE UP SUMMIT

Milan, 2019 March 11th

Today's Objectives



Present Eni and its
Digital
Transformation
Agenda



Eni challenge to
enhance Safety



Eni Challenge to
enable
decarbonization &
circular economy



Agenda

Giacomo Silvestri

Group Head Digital
Strategy, Innovation
& Demand
Management



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Eni in a nutshell

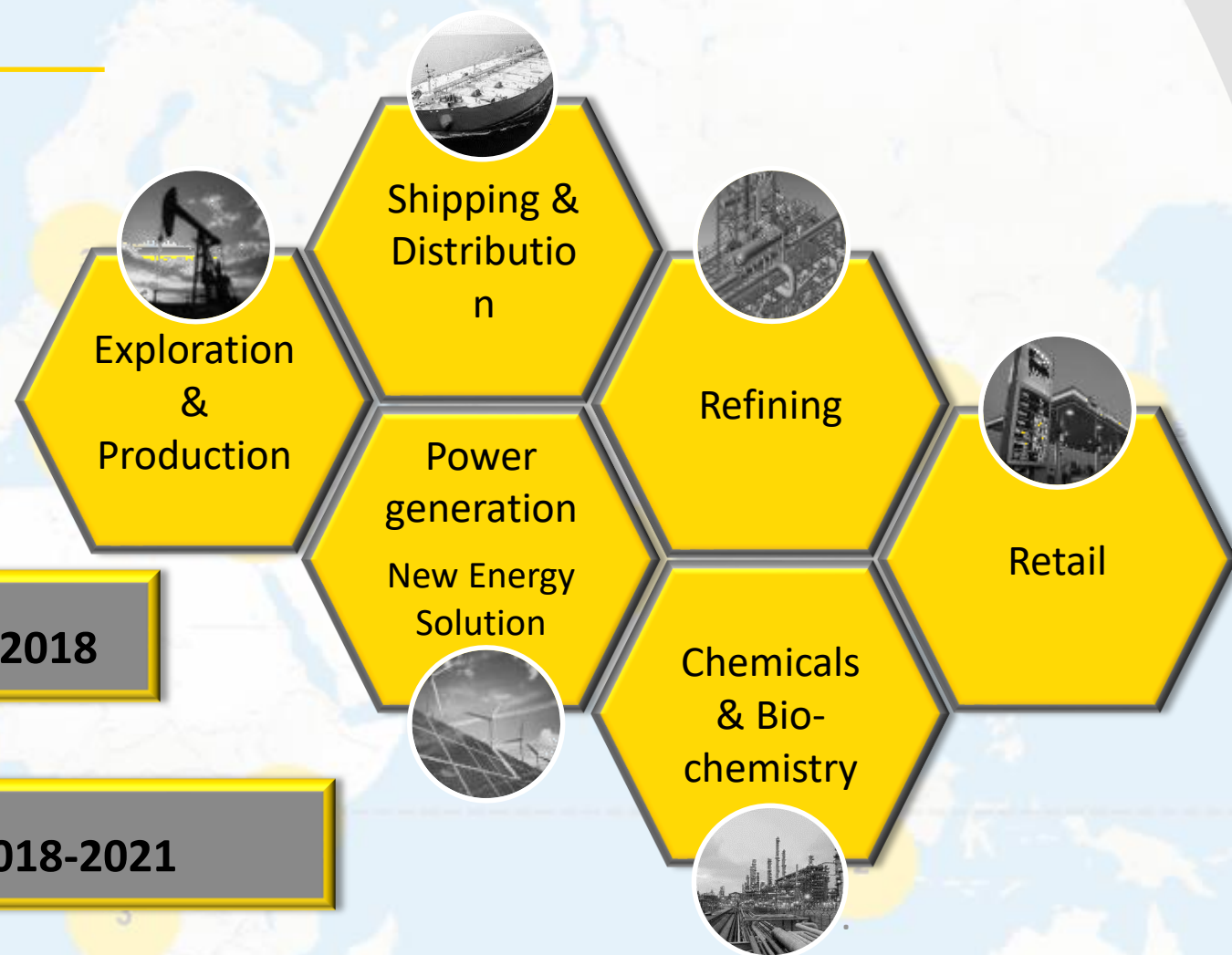
71 countries

33'000 employees worldwide

More than **€9B** technical investments in 2018

More than **€750M** R&D investments 2018-2021

Adjusted operating profit in 2018: **€11,2B**



Eni is building a future where access to energy is Universal, Efficient and Sustainable



Eni Digital Agenda driven by 3 Strategic Areas

Strategic Goals

1

Excelling in Asset Integrity & Safety



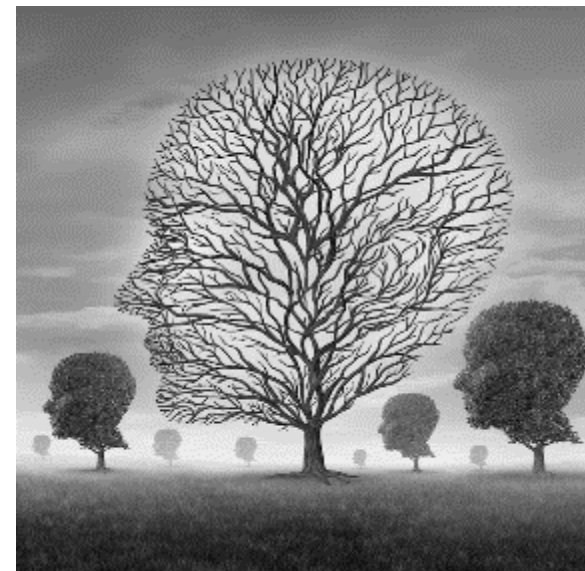
2

Enhancing all performance drivers



3

Enabling Decarbonization & Circular Economy



People & Capabilities

Digital Innovation

Financial Investments

Eni Digital Agenda leverage on a vast variety of integrated Digital Solutions

Artificial Intelligence



- Machine/Deep Learning
- Natural language processing
- Image recognition
- Robot Process Automation
- Knowledge Representation & Reasoning
- Big Data

Augmented & Virtual Reality



- Augmented Reality
- Virtual Reality
- Mixed Reality

IoT, IIoT & Connectivity



- IoT Platform
- Sensors
- Wearable
- TAG (ie. RFID, QR code, etc)
- Connectivity (ie. 5G, etc)

Blockchain



- Distributed Network and Storage
- Digital identity
- Data & Transaction Governance

Advanced Robotics & Additive Manufacturing



- Automation & Robotics
- UAV – Unmanned Aerial Vehicles
- Rover
- 3D Printing



We have identified 6 Business Areas, 4 Transversal Topics & 5 Technological Clusters

Business Areas

Industrial

Upstream,
Refining,
Power, etc.



Exploration

Geology &
Geophysics,
Subsurface, etc.



DOT

Development,
Reservoir,
Drilling, etc.



Retail

Retail, EGL,
Enjoy



Energy Solution



Syndial



Transversal Topics

Safety



Asset Integrity



Decarb.



Circular Economy



Artificial Intelligence

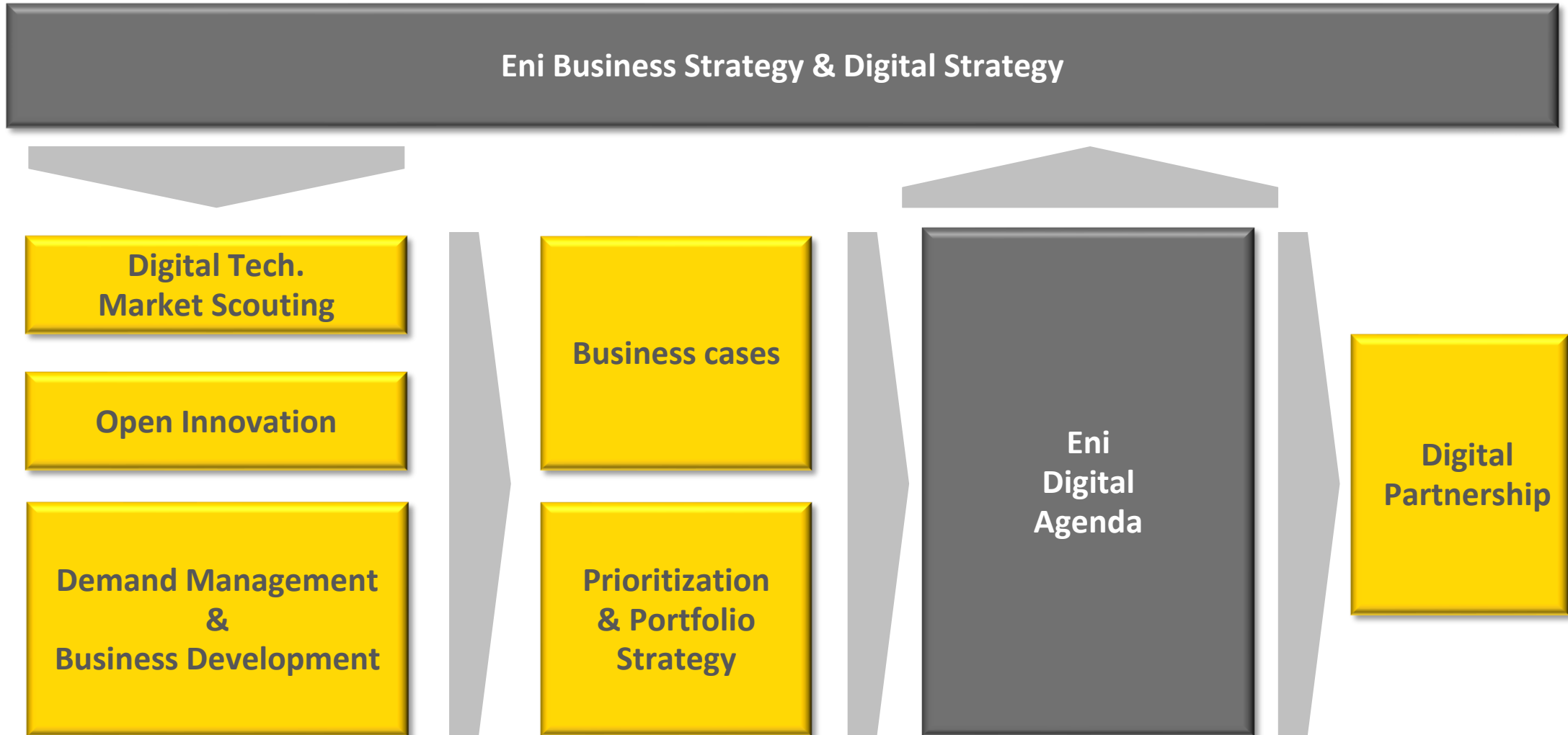
Augmented & Virtual Reality

IoT, IIoT & Connectivity

Advanced Robotics & Additive Manufacturing

Blockchain

The way we shape and drive our Digital Agenda & Strategy



Eni Digital Agenda 2019-2022 in a nutshell

Our Numbers

Scope



Projects

200+

Focus

All businesses
+ support function

Countries

38

Innovation



Digital Technologies

All

Open Innovation

50 +

Agile & Design Thinking

35 +

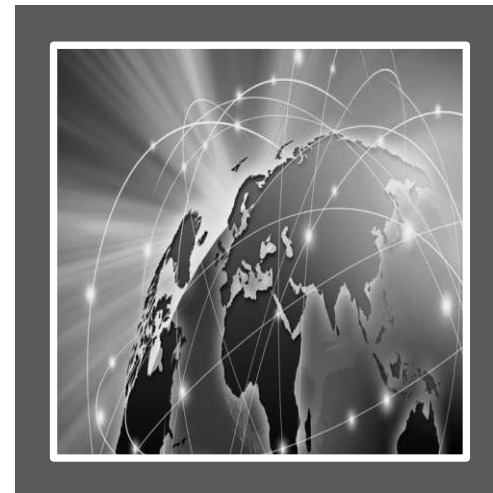
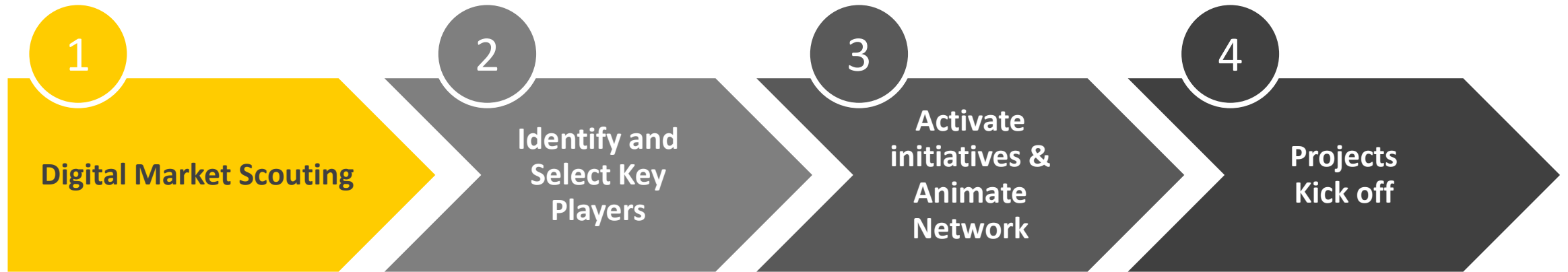
Involvement



Directly involved people

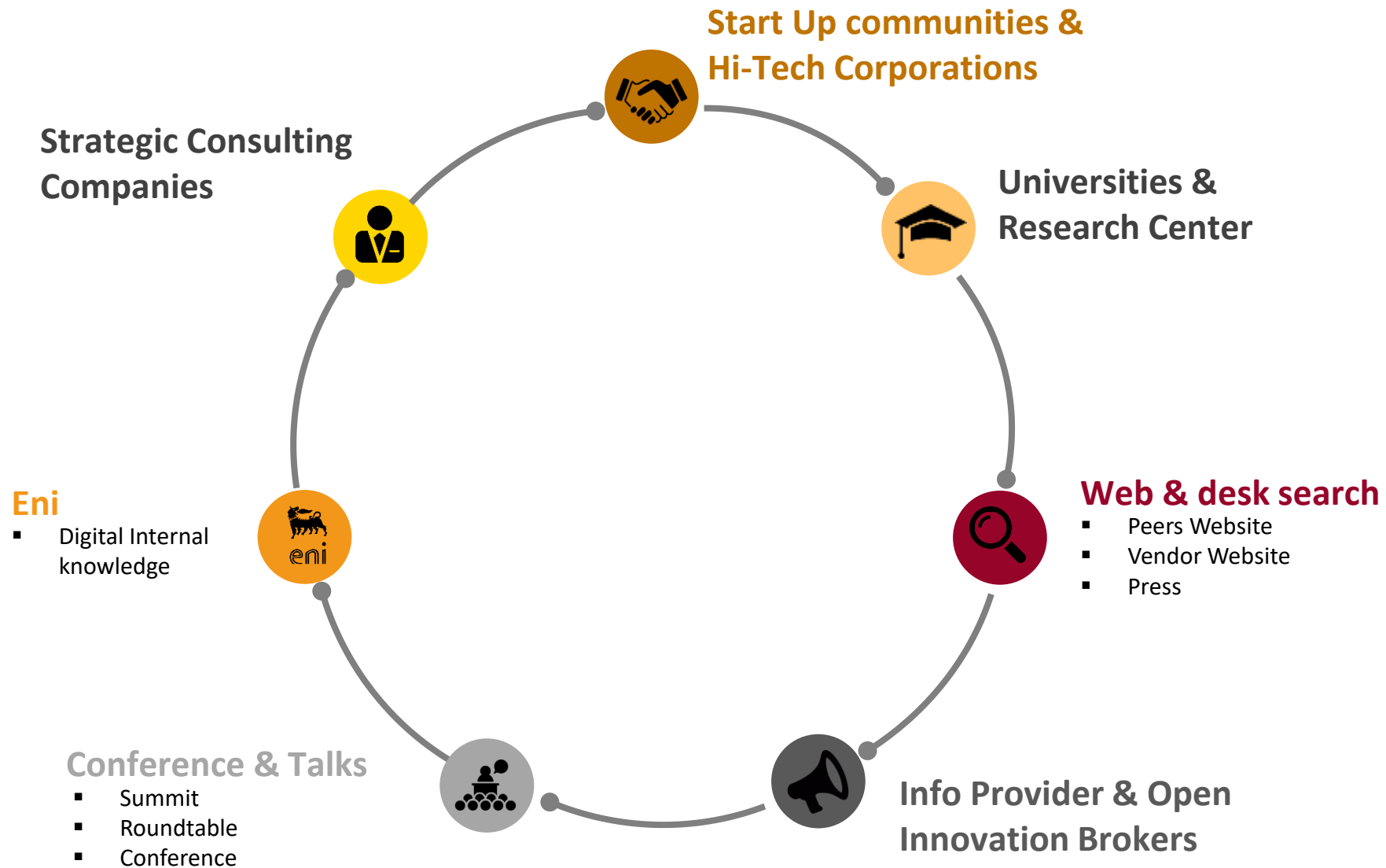
ca. 1.300

How Eni has approached Open Innovation



How we scout Digital trends and landscape:

Key sources



Agenda

Chiara Cerruti
VP Safety, Industrial
Hygiene &
HSE Emergency



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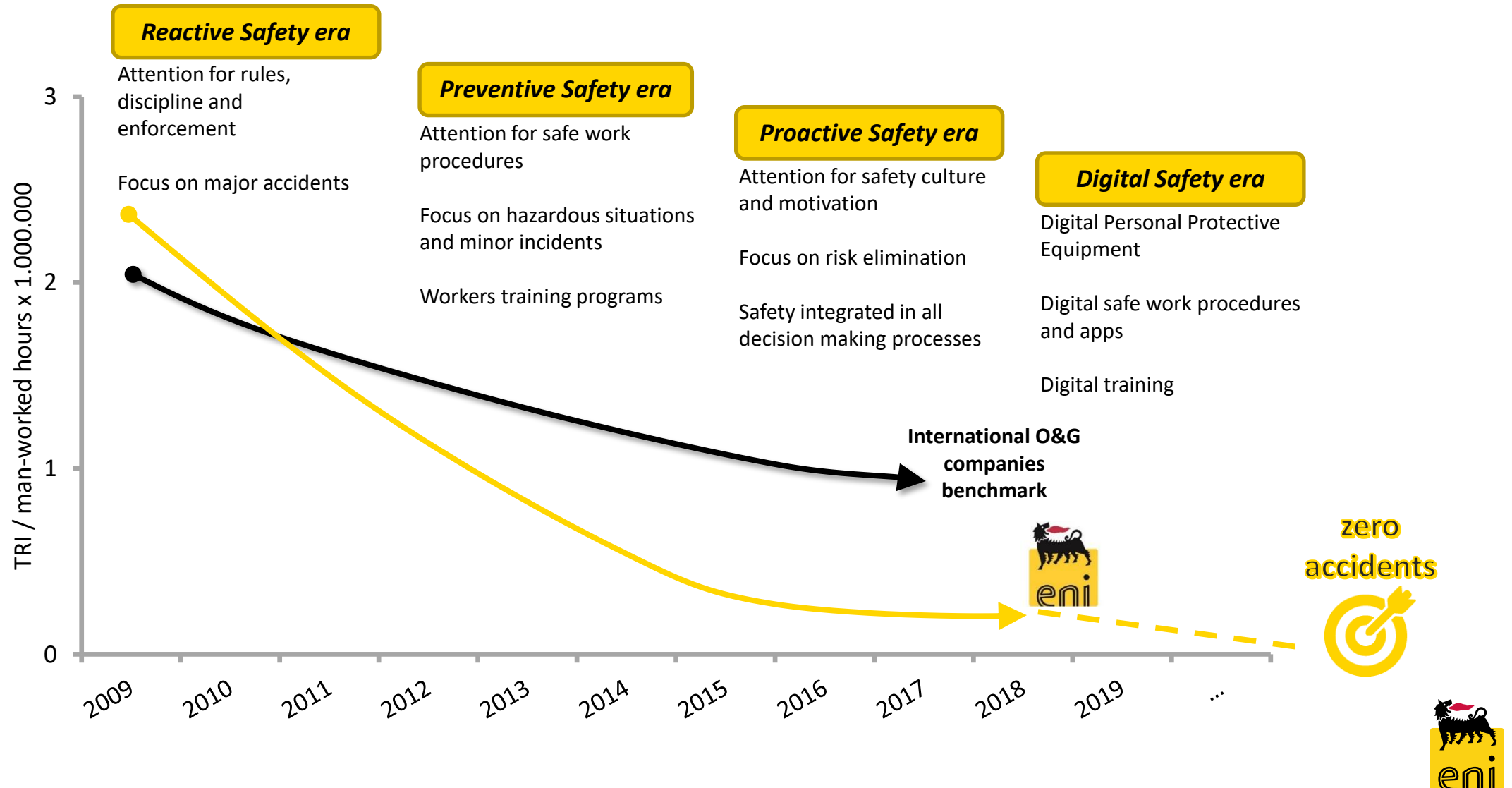
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Eni Safety performance evolution



Digital Technologies to increase safety: where we are today ...

Eni safety goals



Improve workers' safety



Strengthen efficiency in safety, maintenance and operation



Monitor site activities in real time, reporting anomalies and hazardous situations



Increase the efficiency of HSE training activities

Smart Operator Project

Virtual Reality Training

To allow the training of operators on HSE scenarios through virtual reality technology



E-WP

To make the work permit management and approval process more efficient.



Smart Safety

- To monitor the correct use of PPE
- To allow man-down detection and SOS activation
- To prevent unauthorized access of areas
- To localize workers during an emergency and allow head-counting at muster points

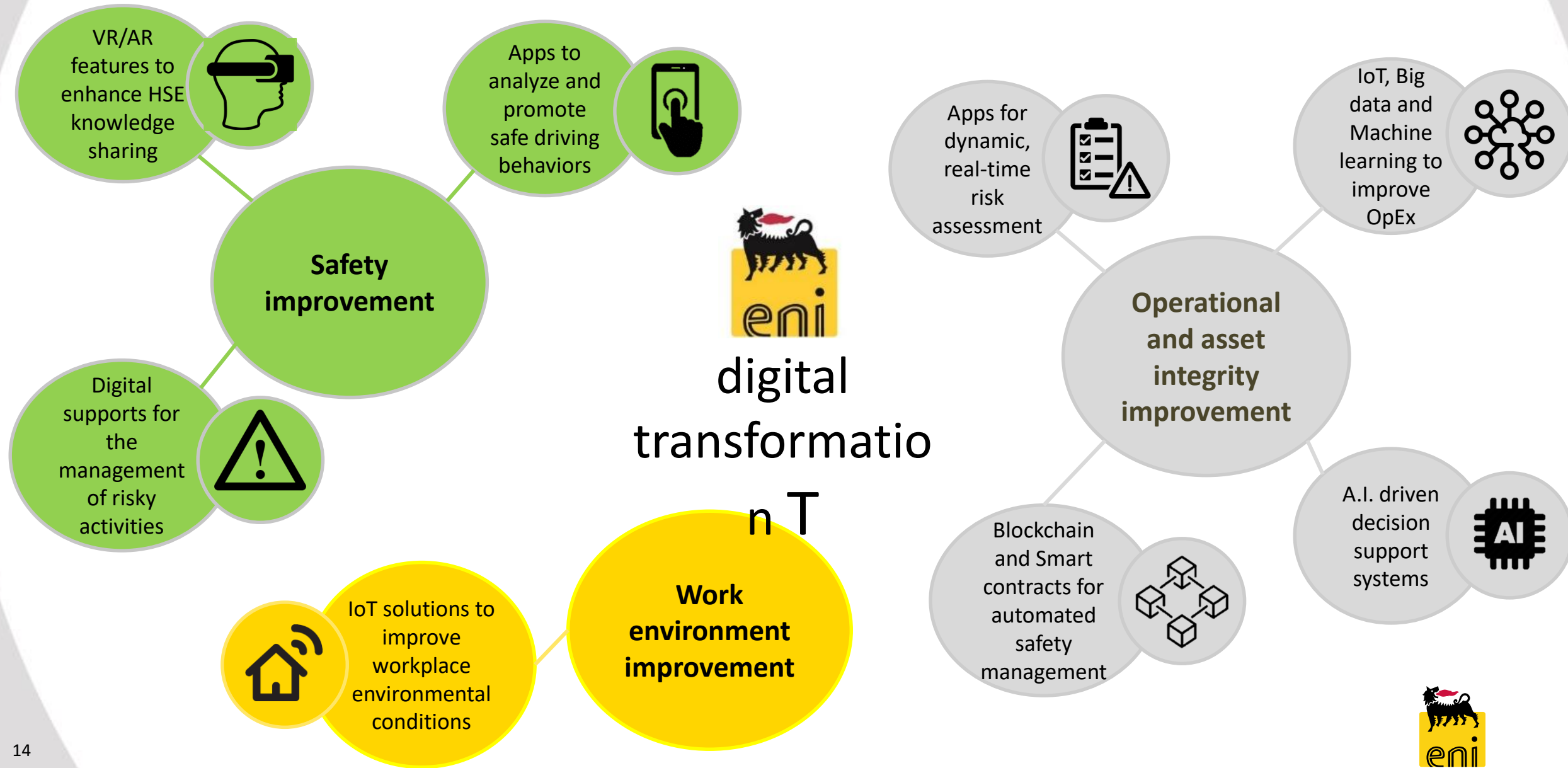


Enhanced Operator

- To report unsafe conditions and equipment anomalies
- To consult checklists and plant documentation
- To collect equipment data
- To receive remote support during complex tasks



... what we would like in the future



Agenda



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Monica Spada
VP Long Term
Positioning Initiatives
Coordination



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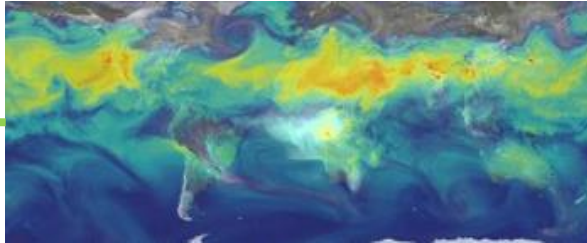
An effective path to decarbonization

2014-17

4YP 2018-2021

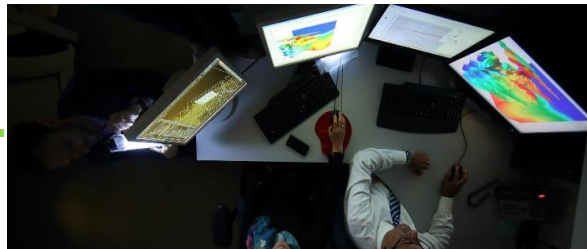
...2025

DECARBONIZATION PATH & GREEN BUSINESSES



CARBON FOOTPRINT REDUCTION – TARGET 2025

- -43% Upstream direct emissions vs. 2014
- -80% Fugitive methane emissions vs. 2014
- Zero routine gas flaring



RESILIENT and LOW CARBON O&G PORTFOLIO

- Break-even for new upstream ongoing projects <30 \$/boe
- Resilient at low carbon scenario IEA SDS*
- Gas reserves >50%



GREEN BUSINESSES

- > 1.8 bln € investment
- 1 Mton of green products dal 2021



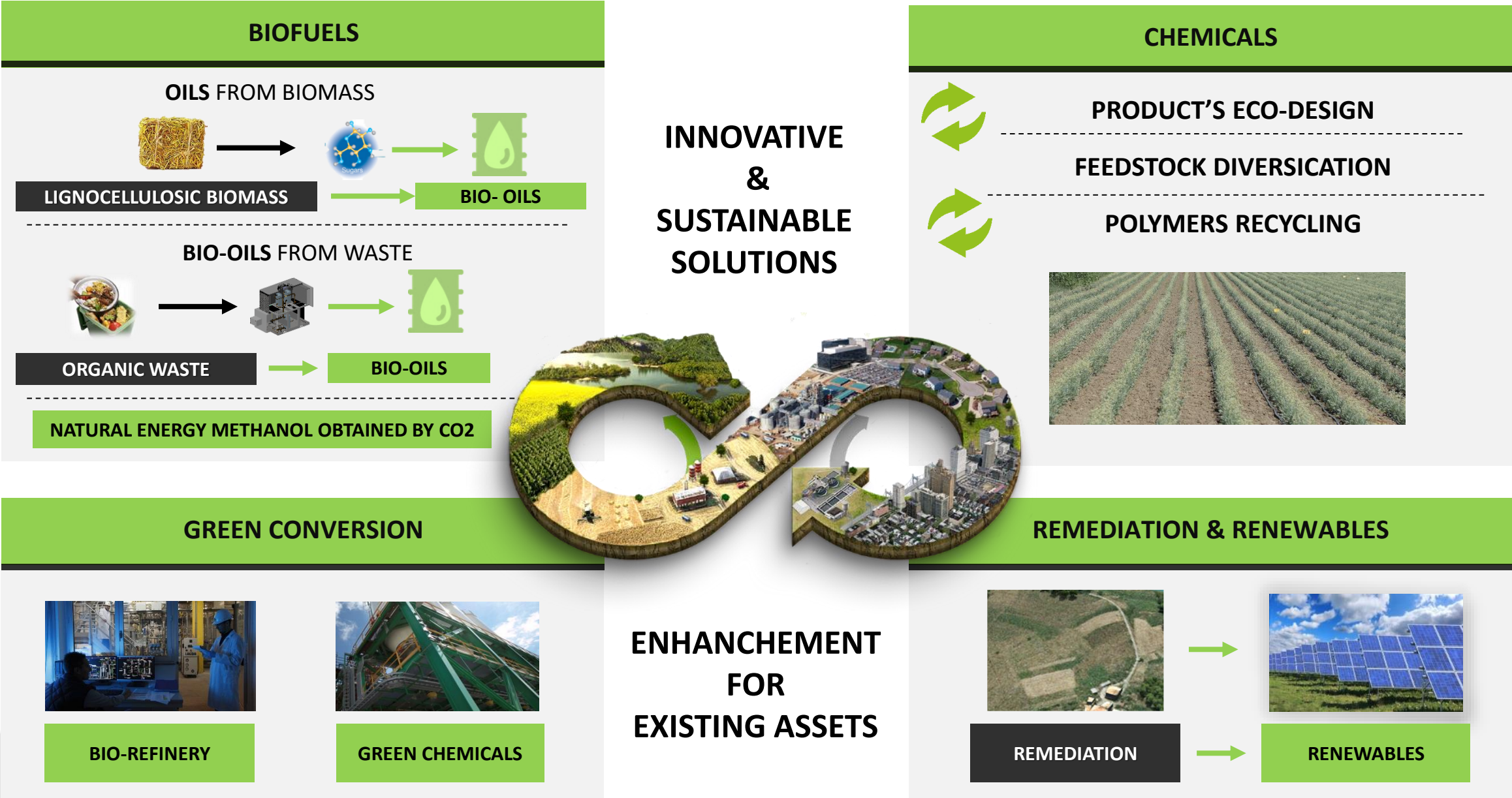
R&D

- Alternative Biofuels
- Renewables on an industrial scale and new low carbon sources
- Energy transition technologies



* Sustainable Development Scenario

Circular economy: a strategic driver for our strategy



Digital solutions for Decarbonization & Circular Economy

Consumer

- **Reduce Waste :**
 - Digital system to track consumer waste and indicate the percentage of recycling and damp destination.
 - Digital system for predictive recycling .
 - Digital platform for sharing object, spaces and material.
- **Reduce Emissions:**
 - Mobile solutions to calculate the CO2 in transport sector and presentation of alternative solution as mobility sharing, public transport, alternative fuel etc.
 - App to encourage the adoption of solutions with a lower emission profile and high efficiency in the use of resources.
 - green points.

Industry

- **Digital solution to calculate the methane level (asset/country)**
- **Digital solution to monitor fugitive methane**
- **Digital solution for circular supply chains**