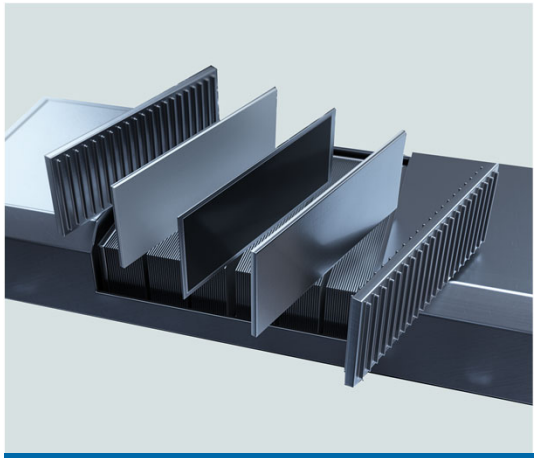

umicore
materials for a better life
Introducing Umicore
2022

Who we are

A global materials technology and recycling group



A global leader in automotive catalysts for internal combustion engines, hybrids and fuel cell powered vehicles

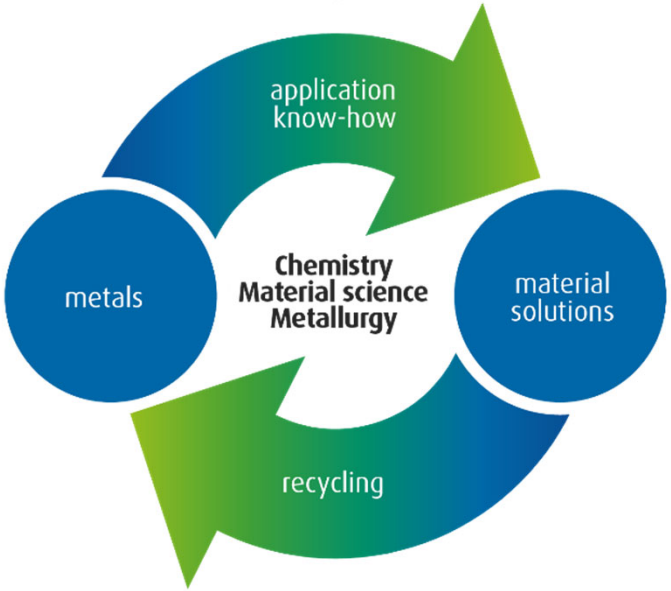
A leading supplier of key materials for rechargeable batteries used in electrified transportation and portable electronics

The world's leading recycler of complex waste streams containing precious and other valuable metals

Built on sound foundations

A longstanding leader in sustainability

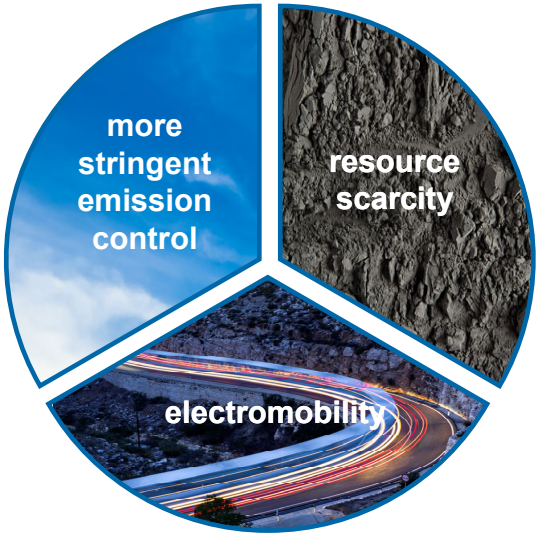
Unique business model



Industry leader in sustainability

Net Zero GHG. Zero regrets.
Endless possibilities.

Supportive megatrends

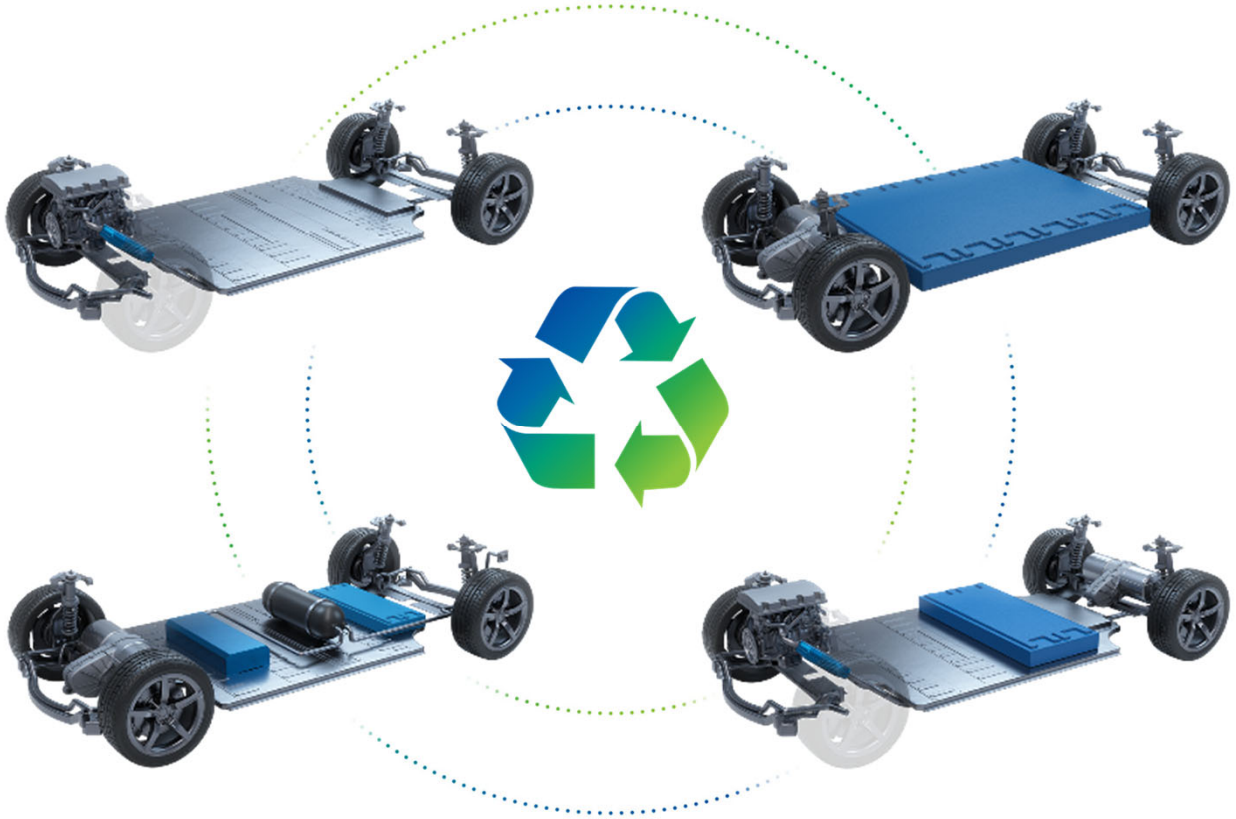


Unique position

in clean mobility materials

Internal Combustion Engine

Emission control catalysts



Full Electric Vehicle

Battery active materials

Fuel Cells Vehicle

Electro-catalyst and battery active materials

Plug-in Hybrid Electric Vehicle

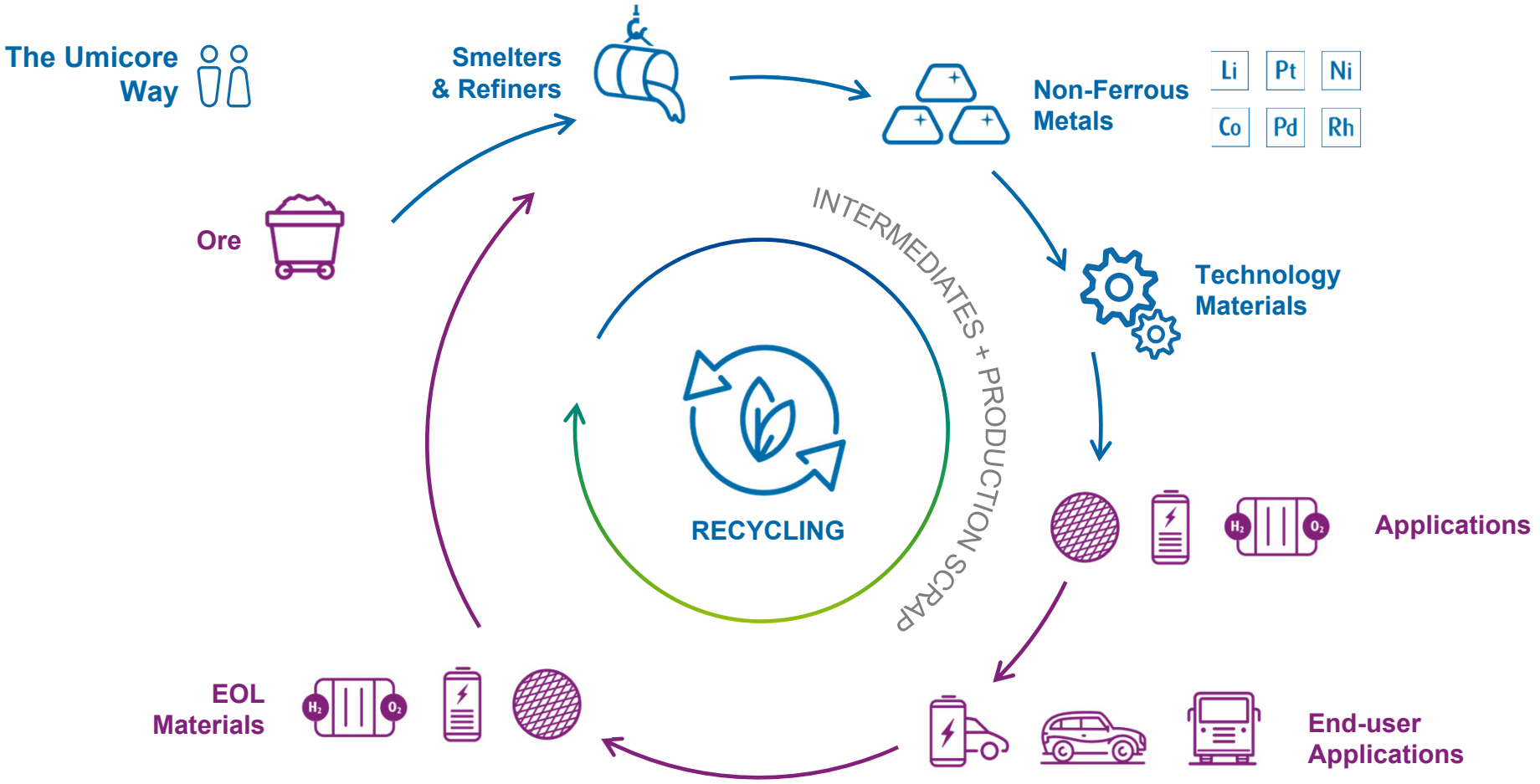
Battery active materials and emission control catalysts

A global leader in recycling

Recovering over 20 metals, offering the highest metal yields

Closing the loop

With a unique integration in the value chain



Our purpose

Materials for a better life

Over 20 years of sustainability leadership

Delivering solutions to address global trends in the transition to cleaner mobility and the circular economy

Safeguarding our planet's precious resources by reducing the use of primary materials

Setting new industry benchmarks through our technology and innovation

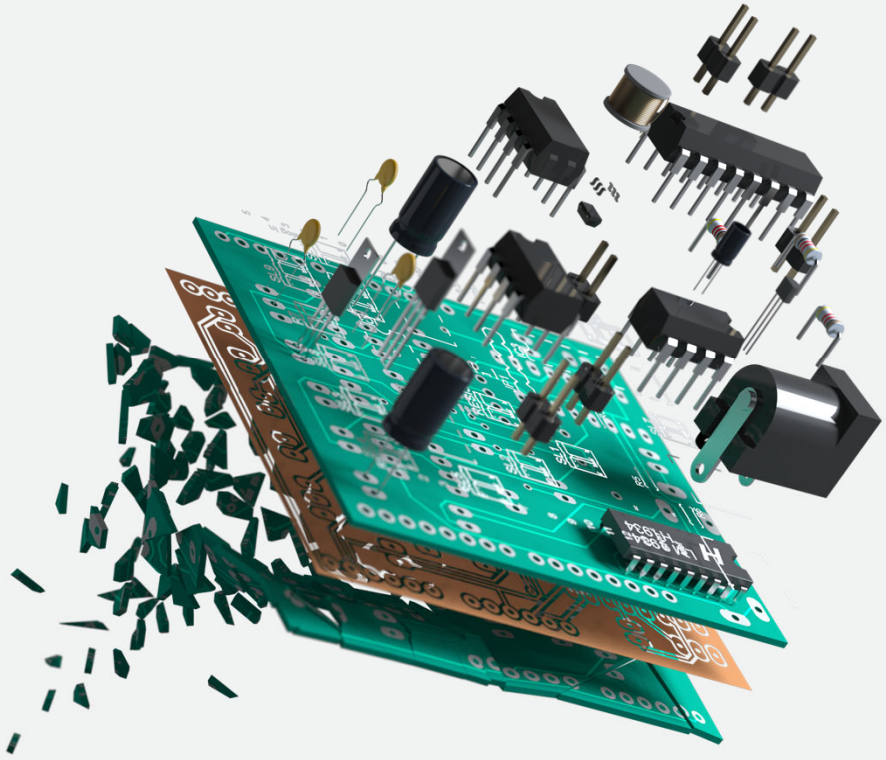

Enabling cleaner air
With Umicore catalyst technologies
Preventing
hundreds of million tonnes
of harmful pollutants
from being emitted
into the air through our products

24 million tonnes of GHG emissions avoided

Through the use of Umicore e-mobility products
2016-2020 vs. internal combustion

11 million tonnes of GHG emissions avoided

Through Umicore's material input mix and recycling 2016 – 2020 vs. primary materials



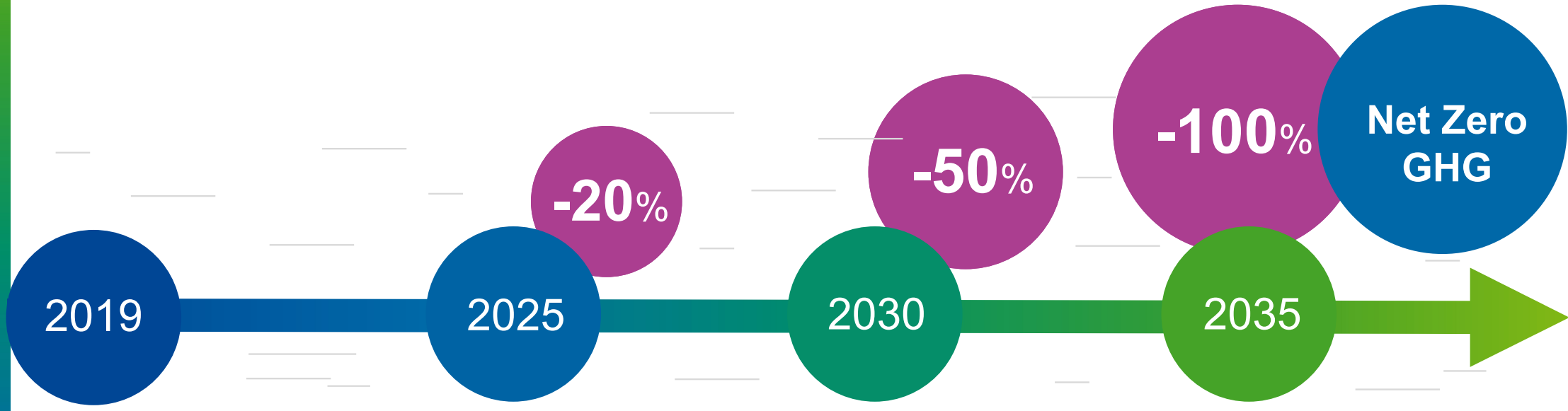
We continue to be a leader in sustainability

Broader, bolder, faster, better

Net Zero GHG. Zero regrets.
Endless possibilities.


Net zero
GHG
by 2035
umicore

Our ambitious commitment:
net zero GHG scope 1 & 2 emissions by 2035



Scope 3 GHG emissions reduction target in 2022

for SBTi validation of our Net Zero GHG ambitions

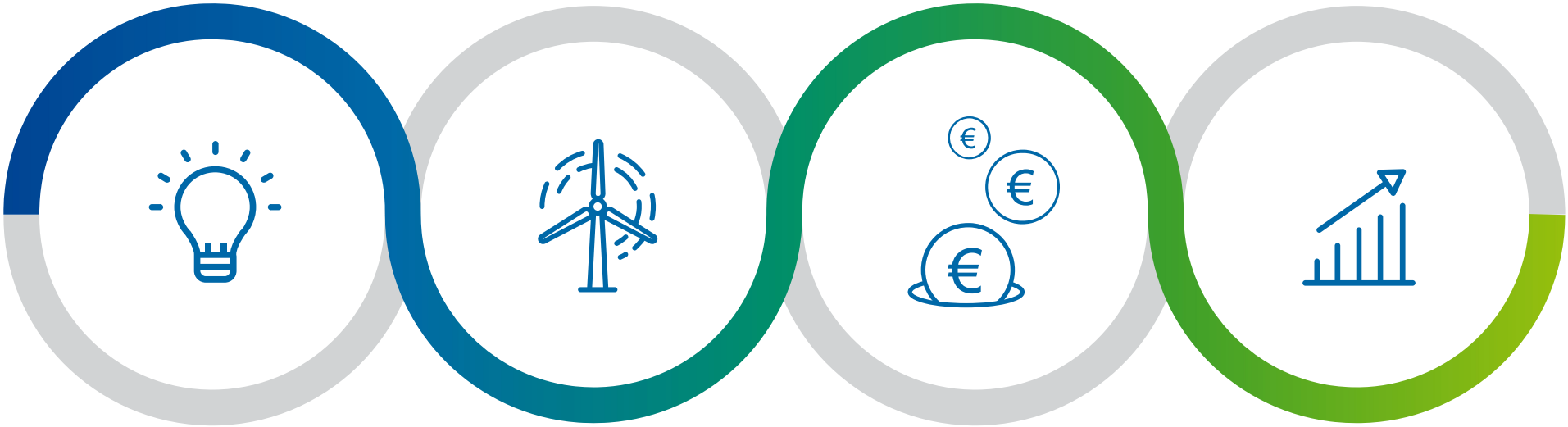
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Belgian Alliance for Climate Action

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Net zero GHG emissions by 2035

Powered by



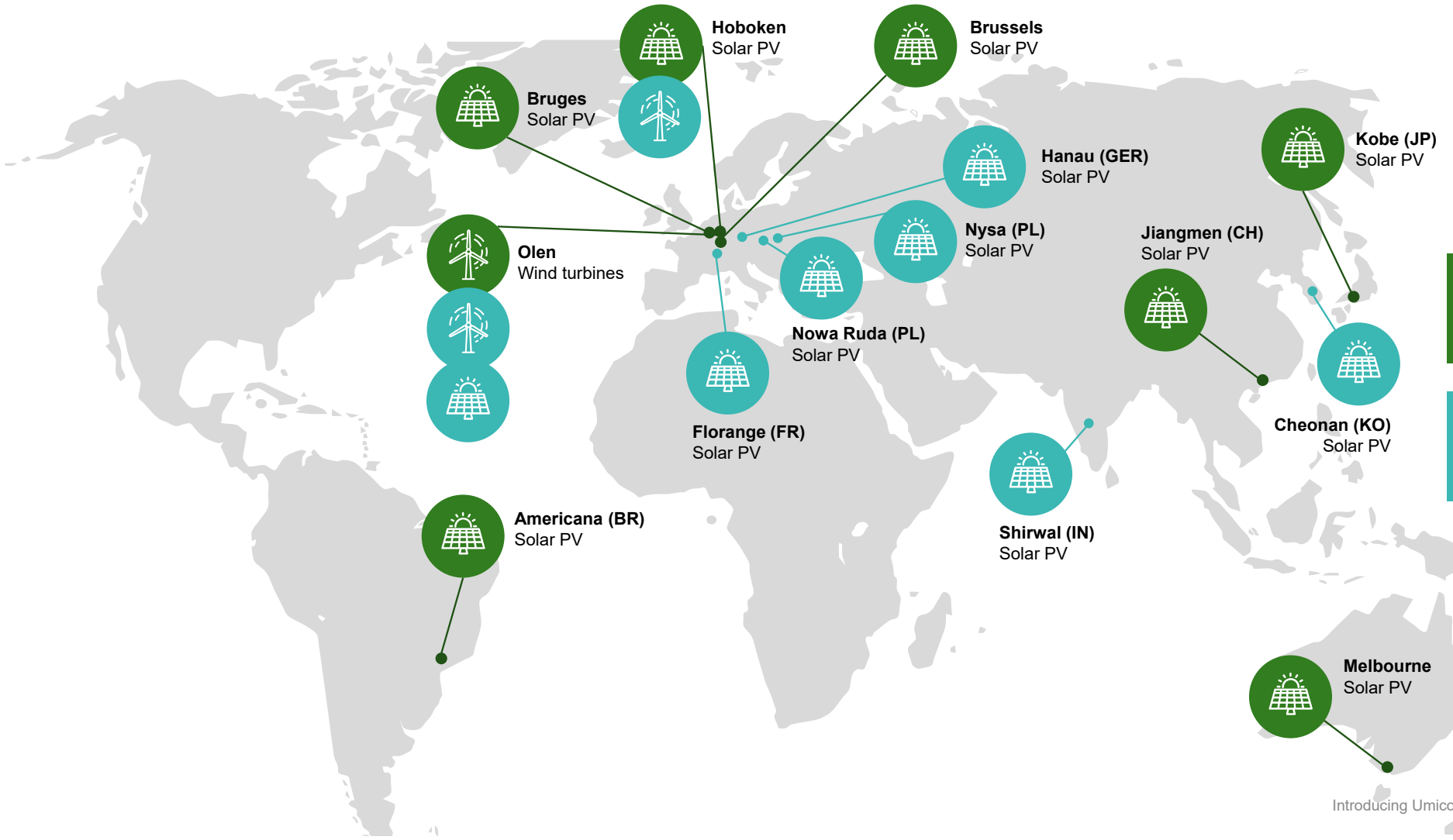
Innovation & strategic collaboration

Renewable electricity

Energy and process efficiency

Carbon Neutral growth

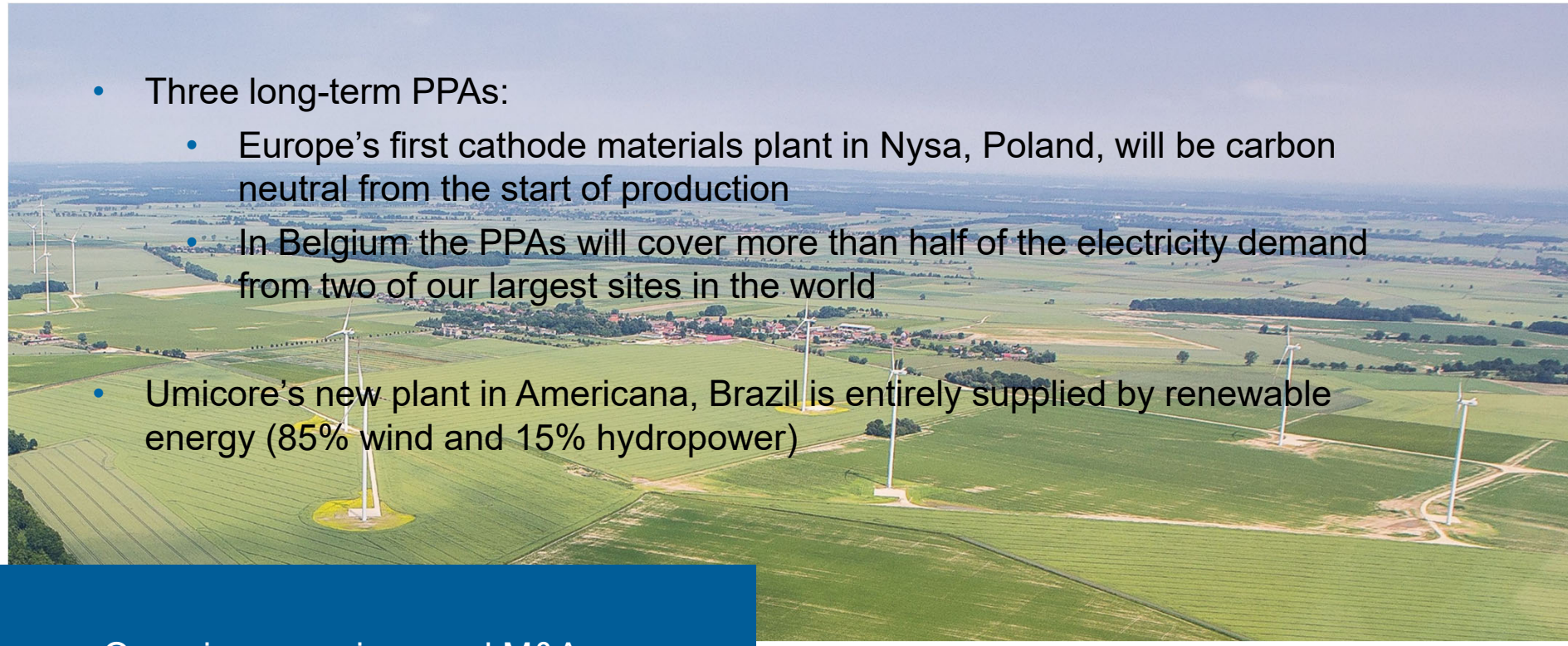
Producing renewable electricity on site



Active installations

Ongoing projects

Carbon neutral growth



- Three long-term PPAs:
  - Europe's first cathode materials plant in Nysa, Poland, will be carbon neutral from the start of production
  - In Belgium the PPAs will cover more than half of the electricity demand from two of our largest sites in the world
- Umicore's new plant in Americana, Brazil is entirely supplied by renewable energy (85% wind and 15% hydropower)

Net zero GHG strategy includes:

Organic expansions and M&A:
net zero GHG emissions key criterion in all project assessments


Zero
harm
umicore

Managing our impact with care

Continue our commitment to significantly reduce our emissions

-25% diffuse emissions by 2025 (vs 2020)

Continuous improvement on metal emissions

Caring for safety and wellbeing at work

No work-related injuries

No occupational excess exposure

Physical wellbeing

Occupational wellbeing

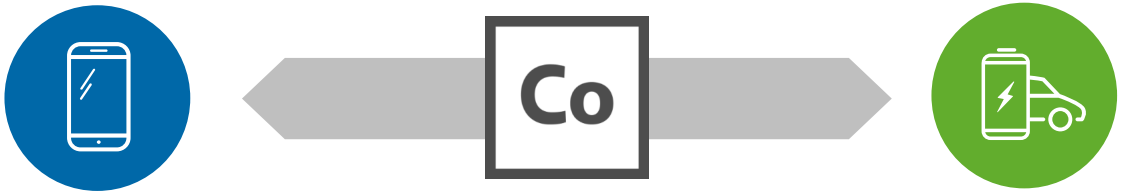
Mental wellbeing

Social wellbeing

Pioneering approach

Over 15 years of sustainable & ethical sourcing

Umicore was **the first company ever to receive third-party validation** for its cobalt due diligence practices



Co-founding member of the **Global Battery Alliance**


Zero
Inequality

Diversity of thought to keep us ahead

WHERE WE ARE TODAY

11,050
Group employees

25%
Women in management

21.6%
Non-Europeans in senior management

75
Nationalities

WE GO FOR

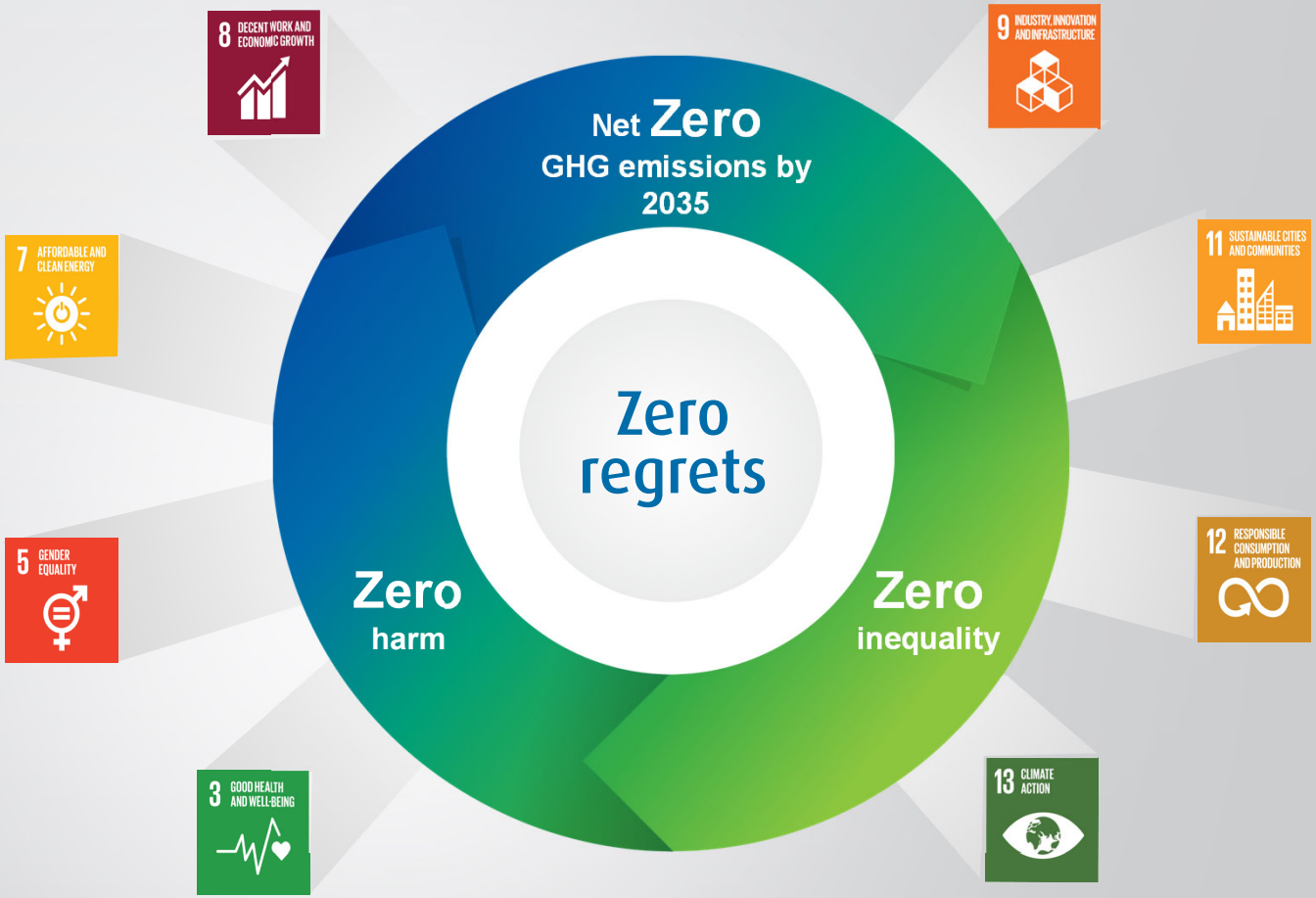
Gender parity in management as soon as possible with **35%** women in management by 2030

Increased non-European representation
in management teams by 2025

Measuring and disclosing
Pay Equality

Maximizing positive impact

Sustainability at Umicore is not only about minimizing the impact of our industrial operations, but first and foremost about creating a positive impact on society by harnessing all our capabilities and bringing solutions to address key societal challenges, today and tomorrow.



Our strategic approach

is supported by

Unique business model & complementarity of activities

Early strategic positioning in the markets we serve

Strong commitment to innovation

Solid financial structure

A leading position in sustainability

clean mobility materials and recycling

standards in sustainability

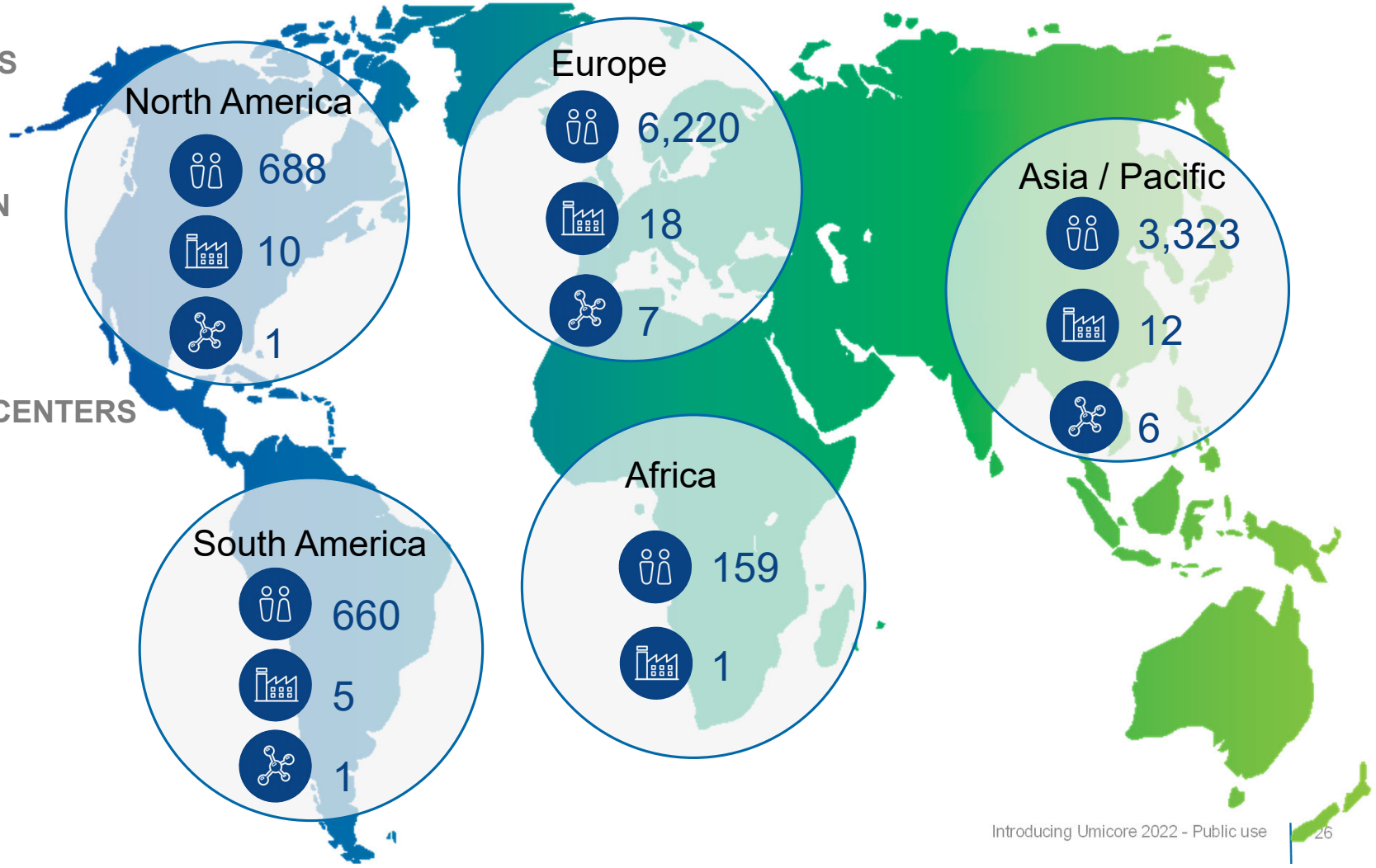
Key facts & figures

Your global supplier, locally

COLLEAGUES
11,050

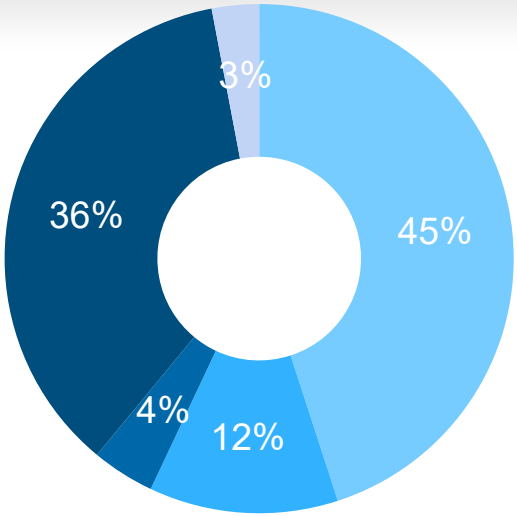
PRODUCTION SITES
46

R&D | TECHNICAL CENTERS
15



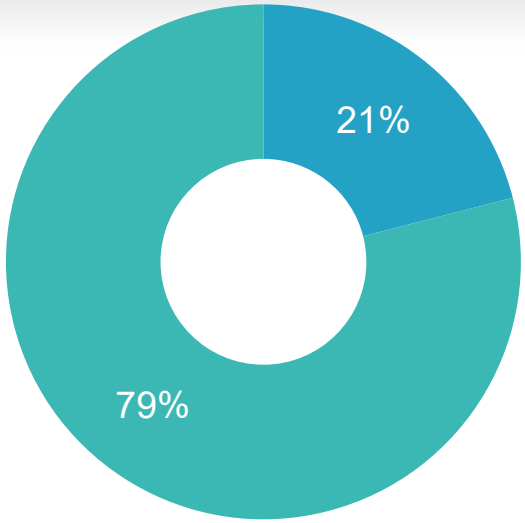
Key figures 2021

Revenues	Adjusted EBIT	Adjusted EPS	R&D spend
€ 4.0 bn	**€ 971 m**	**€ 2.77/share**	**€ 245 m**



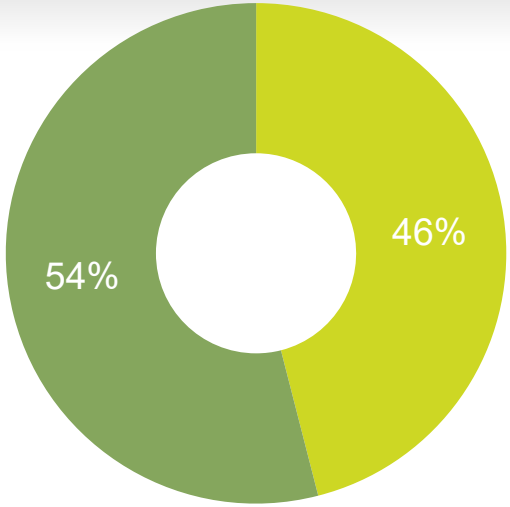
Revenues by geography

- Europe
- North America
- South America
- Asia-Pacific
- Africa



Revenues generated by

- Clean mobility & recycling
- Other solutions



Input materials

- Primary materials
- Secondary & end of life materials

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Annexes

Our Group structure

CATALYSIS

Automotive Catalysts

Precious Metals Chemistry

Fuel Cell & Stationary Catalysts

ENERGY & SURFACE TECHNOLOGIES

Rechargeable Battery Materials

Cobalt & Specialty Materials

Metal Deposition Solutions

Electro-Optic Materials

RECYCLING

Precious Metals Refining

Precious Metals Management

Jewelry & Industrial Metals

Battery Recycling Solutions

Catalysis

Unique position in Catalysts

Strong growth drivers:

Increasing uptake of fuel cell drivetrains and attractive growth opportunities in the hydrogen economy

Tightening emission norms for LDV and HDD, particularly in China and Europe

Increasing share of gasoline platforms in the global mix

Accelerating demand for Umicore's catalysts used in fuel cell vehicles. R&D and production capacity in Germany, Korea and China.

R&D program and joint development agreements to establish future success in PGM-catalysts for hydrogen storage/release and green electrolysis

Leading position for Umicore's emission control catalysts In Europe and China

Umicore well positioned to capture further growth in HDD segments

Energy & Surface Technologies

Unique position in Rechargeable Battery Materials for EVs

Electrification confirmed as main avenue to drastically reduce vehicle emissions in mid- and long-term

Strongly supported by **legislation** and evidenced by massive roll-out of car OEM's e-mobility strategies

Increasing electrification drives **strong market demand** in mid and long-term

Technology roadmap offers ample room for **innovation and differentiation**

- Product
- Process
- Closed loop offering

Umicore well positioned to address LT requirements of this industry, while managing ST fluctuations with agility

- Full spectrum of highest quality cathode materials with growing sales of high-nickel chemistries
- Flexible production capacity across NMC grades
- Innovation pipeline spanning next 20 years
- Integrated supply chain and battery recycling
- Presence in Europe, China and Korea
- Intention to create EU battery materials JV with Volkswagen AG

Recycling

Unique position in Recycling

Increasing **metal scarcity** and need for **closing the loop**

Growing complexity of materials to recycle

Increased availability of complex materials, in particular end-of-life materials

Eco-efficient recycling processes are becoming the norm

Umicore uniquely positioned to capture growth as the **world's largest and most complex** precious metal recycler with **world class environmental and quality standards**

Pioneer in li-ion battery recycling with newest generation of technologies

Metallurgical leadership and proprietary technologies for treating complex residues and by-products

Closing the loop in product businesses by offering recycling services

Over 200 different input streams

Recovery of more than **20 different metals**

Implementing our ESG strategy

Net Zero GHG

Clear inroads made on tackling **scope 2 emissions with several green PPAs** in place

New on-site renewables installations completed

Scope 3 emissions target to be announced by **mid-2022**

Zero inequality & Zero harm

New diversity, inclusion, wellbeing and safety **training programs** rolled out

Water use reduction target to be announced by **mid-2022**

Additional measures taken to further **reduce emissions** of the **Hoboken** plant; preparing for the creation of the green zone

Best-in-class Governance

Strengthened **ESG Governance**

Proposal for **ESG-linked executive remuneration** policy to be submitted for the April 2022 AGM

Increased disclosure beginning in the 2021 Annual Report, published on 25 March 2022

Inaugural **€ 500 million Sustainability Linked Loan** linked to Umicore's decarbonization and diversity targets, refinancing an existing € 300 million syndicated credit facility

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SCIENCE BASED TARGETS

Committed in 2021

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

top EMPLOYER BELGIË BELGIQUE BELGIUM 2022

CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

Net Zero GHG. Zero regrets.
Endless possibilities.

Catalysis overview

Automotive Catalysts	We are one of the leading producers of emission control catalysts for gasoline and diesel on-road and non-road applications, power generation and industrial processes to meet environmental standards around the world.	Pt Pd Rh Ti V W
Precious Metals Chemistry	We are experts in metals-based catalysis for life-enhancing applications. Emission treatment technologies, cancer treatments, the production of fine chemicals and advanced electronics – all are made possible by our organometallic technology know-how.	Pt Pd Ru Rh Ag Co Au Ir Ga
Fuel Cell & Stationary Catalysts	We are a leading player in emissions control catalysis for industrial plants and shipping, and supply state-of-the-art fuel cell catalysts for zero emission mobility and green hydrogen production.	Pt Pd Rh Ti V W

Energy & Surface Technologies overview

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Rechargeable Battery Materials	We are a pioneer in battery materials and a leading cathode material supplier for rechargeable lithium-ion batteries, giving added range and performance to electric vehicles, and longer battery life for portable electronics.	Ni Co Li Mn
Cobalt & Specialty Materials	We are experts in sourcing, production and distribution of cobalt and nickel products. Our materials are at the heart of everyday products such as rechargeable batteries, tools, paints and tyres. Our recycling and refining processes, including our proprietary lithium-ion rechargeable battery recycling technology, give new life to cobalt and other metals.	Re Co Ni Li W Ta Cu
Metal Deposition Solutions	We are one of the world's leading suppliers of products for (precious) metal-based electroplating and PVD coating of surfaces in the nano and micrometre range. Our solutions for the highest demands are used in many products of daily use or enable their production in the first place.	Au Ag Pd Pt Rh Ru
Electro-Optic Materials	We are a leading supplier of material solutions for the space, optics and electronics sectors, including products for thermal imaging, wafers for space solar cells, high brightness LEDs and chemicals for fiber optics.	Ge Pt Se Si Ti W

Recycling overview

Precious Metals Refining	We operate the world's most sophisticated precious metals recycling facility and we are experts in treating the most complex materials. Our refining and recycling technology gives used metals a new lease of life. Our processes help bring value to the circular economy.	Ag Te Sb Ir Pt Bi Pb Au Sn In As Ni Se Ru Pd Rh Cu
Precious Metals Management	We supply and handle all precious metals, ensuring physical delivery by using both the output of our precious metals refineries and our network of industrial partners and banks. We offer our customers tailor-made solutions for delivering, hedging and trading precious metals.	Ag Pt Au Ir Ru Pd Rh
Jewelry & Industrial Metals	We are experts in developing products and processes based on precious metals such as gold, silver and platinum. Our customers use these materials to make fine jewelry, coins, high-purity glass and industrial catalysts. We provide our customers with sustainable and responsible sourcing of these metals and closed-loop recycling.	Ag Au Pt Pd Rh
Battery Recycling Solutions	Our leading technology closes the loop for rechargeable batteries. We use proprietary high-quality recycling processes to recover all valuable metals in an environmentally sound manner. We offer a unique sustainable and circular approach.	Ni Co Li Cu

Giving back to society

Our commitment

Umicore supports projects and organizations with:

- A clear **educational component**
- An **international** scope
- A link to **sustainable development** (social, environmental and/or technological)

Partnering for impact

unicef | for every child

Long-term partnership with UNICEF

UPSHIFT Program:

- Engage girls and youngsters with disabilities and ethnic minority communities to identify community challenges and create entrepreneurial solutions
- Projects in Asia, Africa and Latin America

Empowering girls through STEM in Indonesia:

- Enabling adolescent girls to access relevant skills for employability and empowerment through bootcamps
- Supporting girls to identify challenges in their communities and develop innovative solutions


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