

BMW
GROUP

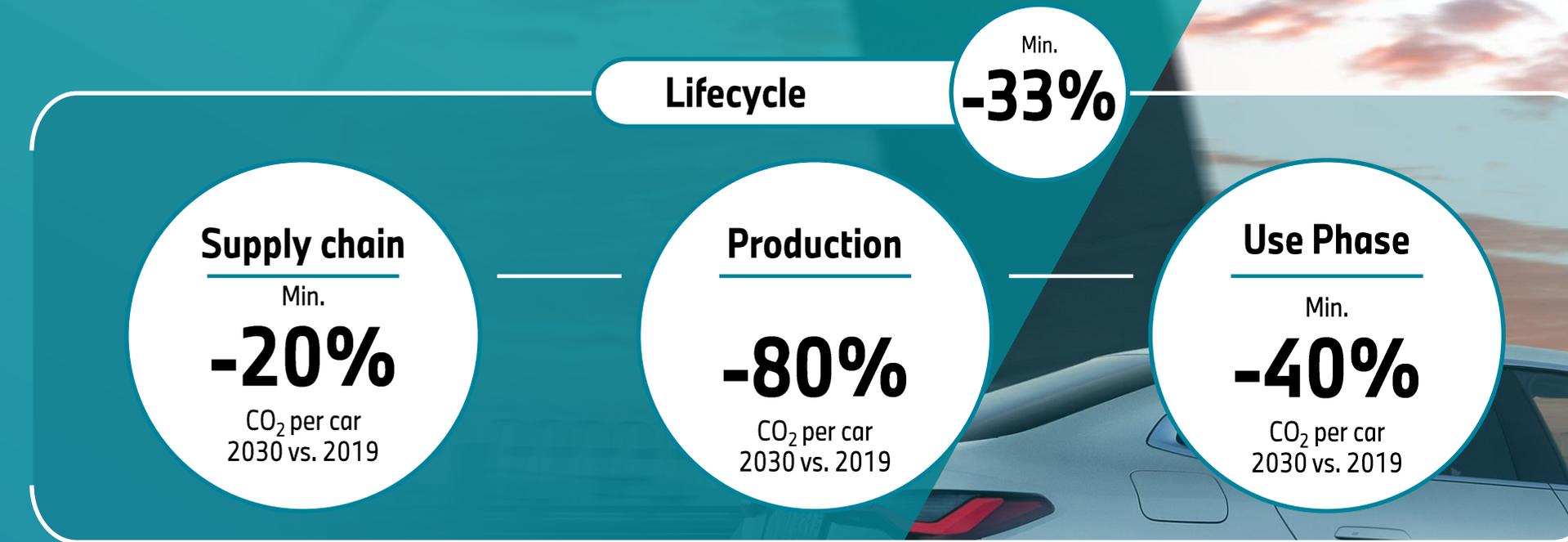


ROLLS-ROYCE
MOTOR CARS LTD

SUSTAINABILITY ACROSS THE ENTIRE VALUE CHAIN IAA SNEAK PREVIEW

OLIVER ZIPSE
CHAIRMAN OF THE BOARD OF MANAGEMENT, BMW AG

CO₂ TARGETS SET IN 2020.



In 2020, we presented precise sustainability targets for the BMW Group.

Thanks to the development of electromobility, we can now tighten our targets and contribute significantly more to climate protection.

THE BMW GROUP IS COMMITTED TO ACHIEVING THE
1.5°C TARGET.



1.5°C

Since TODAY the BMW Group is the first German carmaker to join the **"Business Ambition for 1.5°C"**.

This includes our commitment to achieving climate-neutrality along the value chain by 2050. It also automatically makes us a member of the UN's Race to Zero programme.

SALES FORECAST FOR FULLY ELECTRIC VEHICLES.

> 300,000

BEVs by 2021



The launch of our Neue Klasse is expected to boost BEV sales significantly.

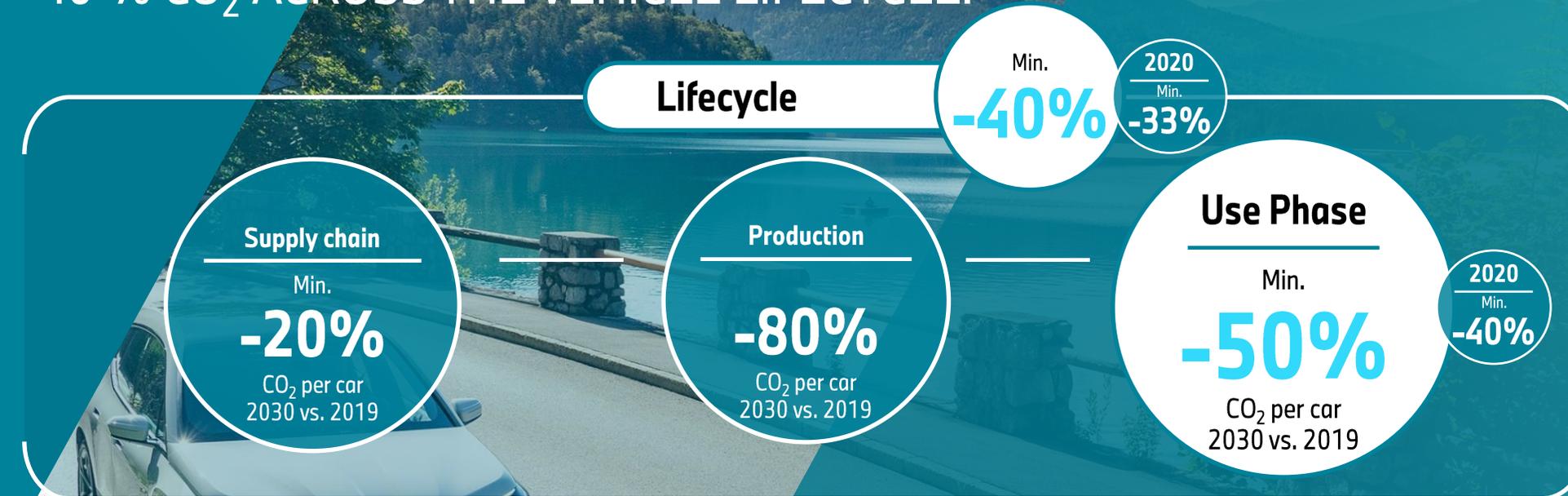
10 million

BEVs over the next ten years

Min. 50%

of all BMW Group vehicles will be fully electric by 2030

-50 % CO₂ FROM PRODUCT UTILISATION BY 2030 –
-40 % CO₂ ACROSS THE VEHICLE LIFECYCLE.



BEV ramp-up affects the carbon footprint of product utilisation. By 2030, we will cut CO₂ emissions from product utilisation by at least 50%.

Use Phase is the biggest contributor to the BMW Group's global CO₂ footprint, accounting for more than 70%. So, CO₂ emissions per car across the lifecycle will fall by at least 40% by 2030.

EU CO₂ TARGETS AND BMW GROUP CO₂ TARGETS WORLDWIDE COMPARED.



The BMW Group will cut CO₂ emissions per car by 50% by 2030.
But Fit for 55 is demanding -55% CO₂ by 2030.
How do the two fit together?

EU CO₂ TARGETS AND BMW GROUP CO₂ TARGETS WORLDWIDE COMPARED.

EU Green Deal
(EU aims to be climate neutral by 2050)

	Reference period	Applicability	Target
EU Green Deal / Fit for 55	1990 - 2030	EU, all sectors	- 55% CO ₂
Fit for 55 proposal for passenger cars	2021 - 2030	EU, transport sector only, Use Phase	- 55% CO ₂ (tank-to-wheel)
BMW Group targets	2019 - 2030	Use Phase worldwide, defined by SBTi (WLTP + 10%)	- 50% CO ₂ (well-to-wheel)

ACEA voluntary commitment 2008 ✓

EU fleet emissions 2020 ✓

EU fleet emissions 2021 ✓

Fit for 55 ✓

Over-fulfilled

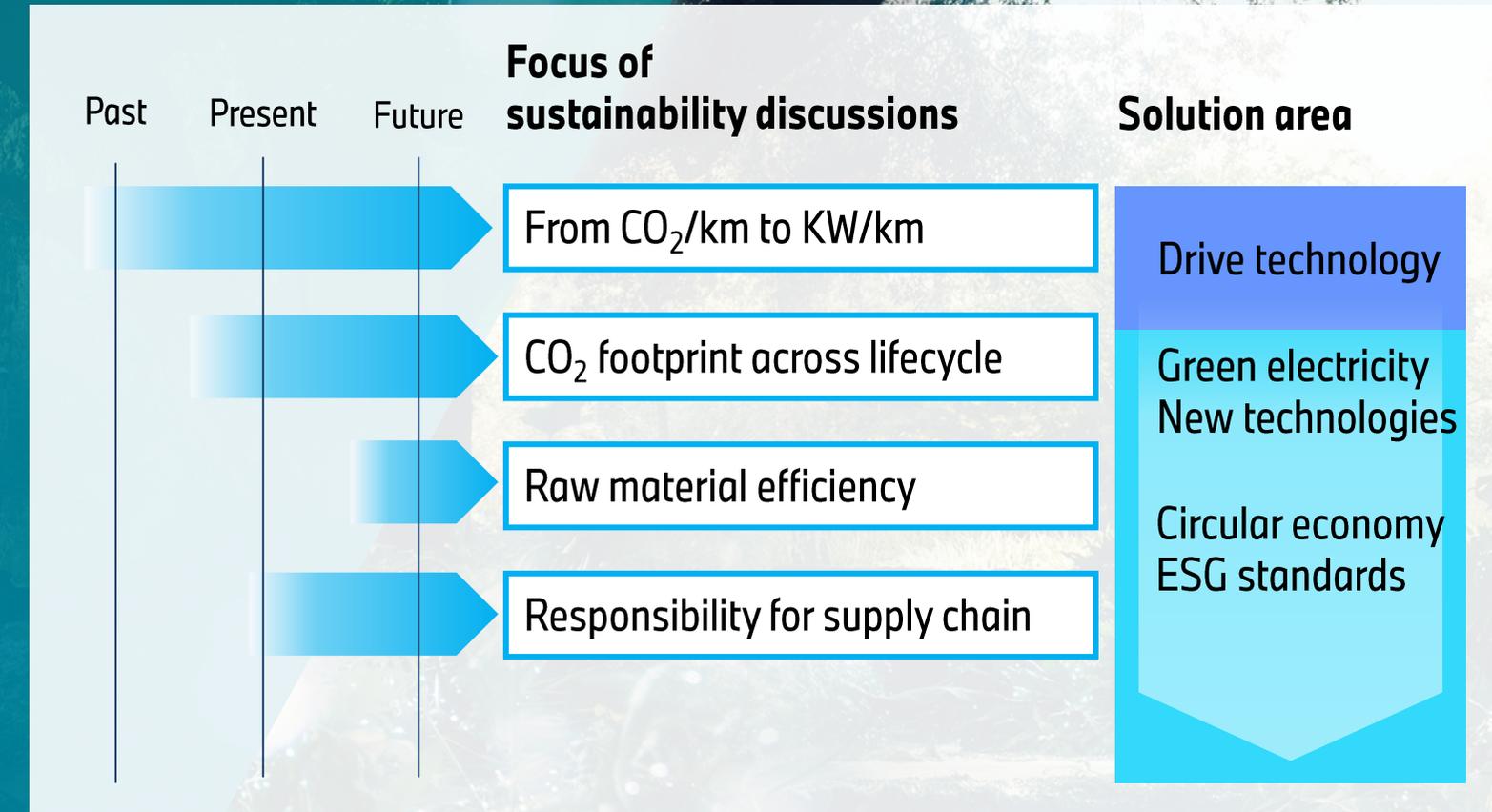
On track

SUSTAINABILITY WILL ADOPT A BROADER FOCUS.

Currently, the focus in politics and society is on CO₂ emissions.

But in the future, there will be a more holistic approach to sustainability.

By anticipating issues, we can set the course for the future today.



EFFICIENT USE OF PRIMARY RAW MATERIALS.



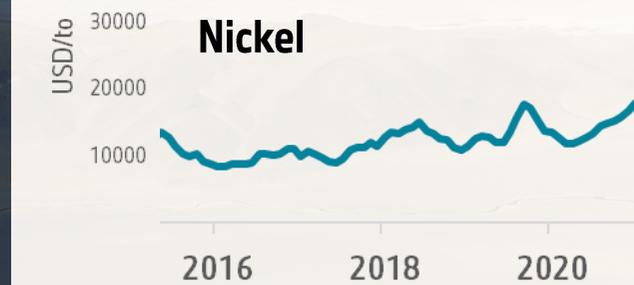
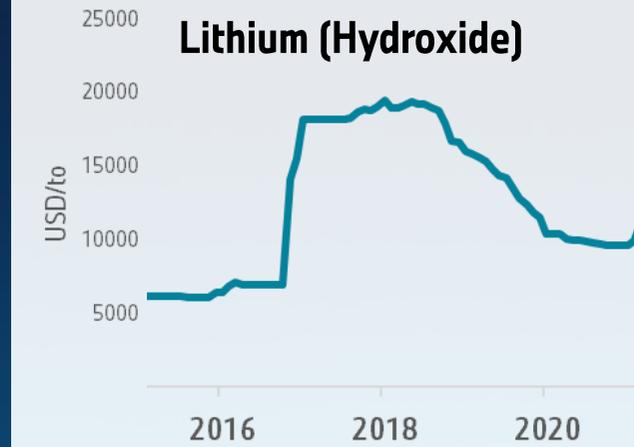
The extraction of raw materials almost always impacts habitats.

Many raw materials for electromobility especially are finite, so prices are rising.

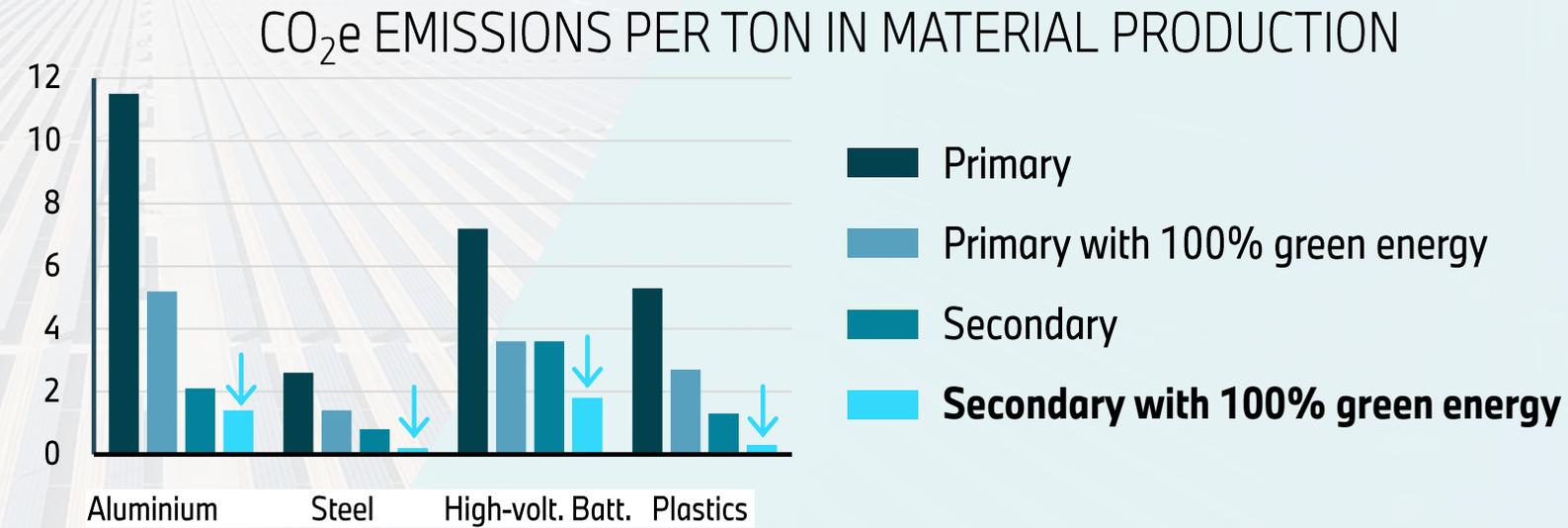
Processing primary raw materials is often highly energy- and CO₂-intensive.

Reducing the share of primary raw materials we use will make us environmentally more sustainable and commercially more viable.

PRICE DEVELOPMENT FOR RAW MATERIALS



OUR APPROACH: SECONDARY FIRST – AN IMPORTANT STEP TOWARDS A CIRCULAR ECONOMY.



The use of secondary materials releases far less CO₂.
Using secondary rather than primary aluminium increases savings by a factor of 4-6...
...and with steel by a factor of 2-5.



GRADUALLY INCREASING THE SHARE OF SECONDARY MATERIALS TO 50%.

Share of
secondary materials

today

< 30%

on average
per car

The quality, security and reliability of materials must be guaranteed.

Availability of materials in the market must increase significantly.

Cross-industry approaches and political initiatives are needed.

The BMW Group is driving this these development.

Share of
secondary materials will
increase to

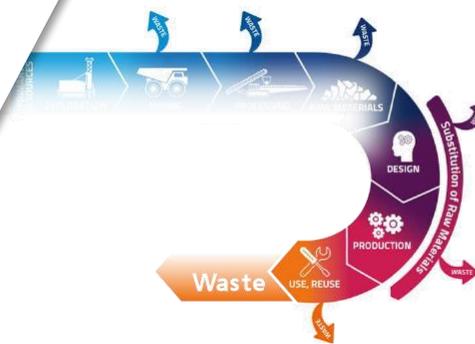
50%

on average
per car

CIRCULAR ECONOMY.



Resource efficiency



Product cycle



Material cycle



The circular economy is the ideal, most sustainable form of economy.
We are working to accelerate the advance towards a circular economy.

Source:
Fraunhofer-Institut für
Werkzeugmaschinen und
Umformtechnik IWU

COLLABORATIVE PROJECTS ON THE CIRCULAR USE OF MATERIALS.

Working with partners to be a catalyst
for the circular economy.

Pilot project with

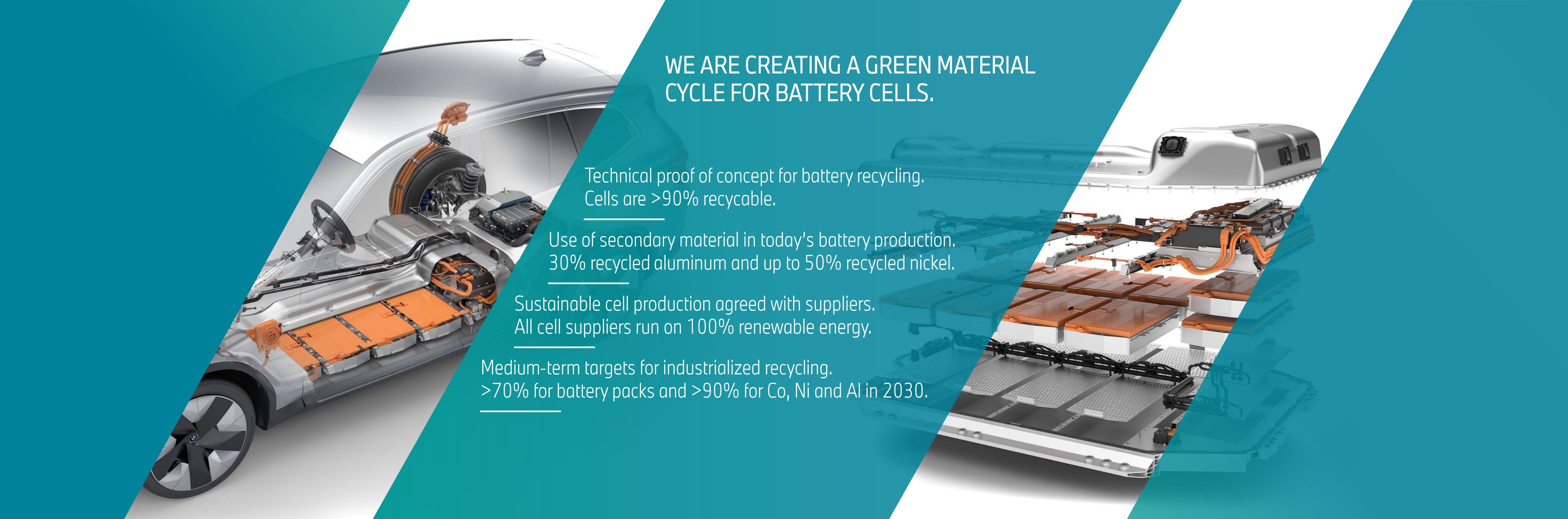
BASF

We create chemistry

ALBA Group

the recycling company





WE ARE CREATING A GREEN MATERIAL CYCLE FOR BATTERY CELLS.

Technical proof of concept for battery recycling.
Cells are >90% recyclable.

Use of secondary material in today's battery production.
30% recycled aluminum and up to 50% recycled nickel.

Sustainable cell production agreed with suppliers.
All cell suppliers run on 100% renewable energy.

Medium-term targets for industrialized recycling.
>70% for battery packs and >90% for Co, Ni and Al in 2030.

WE ARE DOING OUR PART.

1.5°C

10 million
BEVs in the next 10 years

Use Phase
-50%
CO₂ per car 2030 vs. 2019

Lifecycle
-40%
CO₂ per car 2030 vs. 2019

Share of secondary materials
+50%
on average per car



RE:IMAGINE TODAY

IAA»
MOBILITY
MUNICH 2021



BMW
GROUP



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