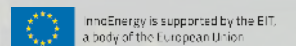




Swedish Electromobility Center
Roads to the Future Conference
October 2021

Anna Teyssot
anna.Teyssot@verkor.com

SUPPORTED BY





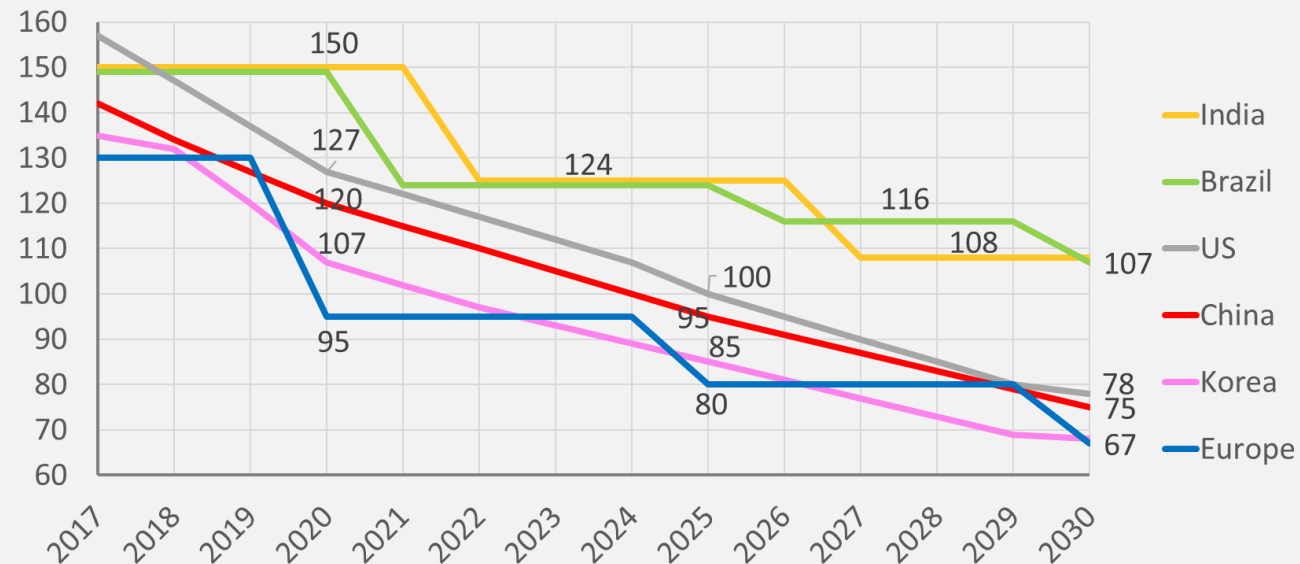
MARKET CONTEXT

Driving gigafactories in Europe

1

WORLDWIDE CO₂ TARGETS

GRAMS OF CO₂EQ/KM AVERAGE

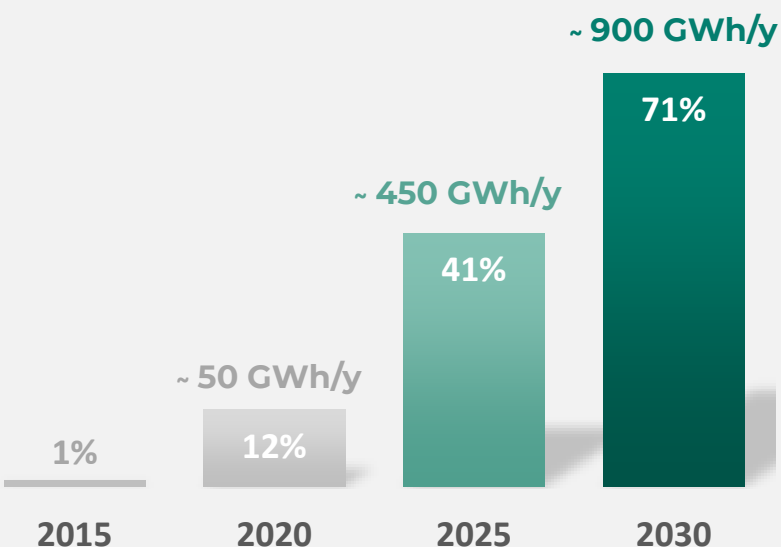


Europe is leading the path to energy transition in the mobility industry

OEM ELECTRIFICATION TARGETS

ANALYSIS OF THE BEV+PHEV COMMITMENTS FOR EUROPE

Volume-averaged Europe forecast
EV+PHEV sales share



OEM Announcements
Verkor Extrapolation (*)

Group
Volkswagen Group
Stellantis
Renault-Nissan-Mitsubishi
Daimler
BMW
Ford
Hyundai
Toyota
Tata-JLR
Tesla
VolvoCars

2020	2025	2030
11%	40%	60%
7%	40%	70%
16%	45%	70%
2%	25%	100%
17%	25%	50%
1%	90%	100%
13%	30%	60%
5%	20%	30%
9%	30%	60%
100%	100%	100%
29%	50%	100%
Total	41%	71%

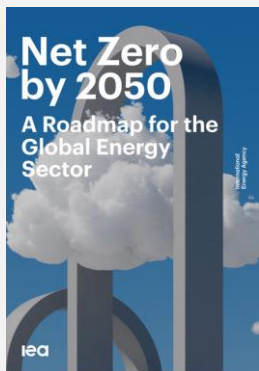
(*) geographical or on the timing

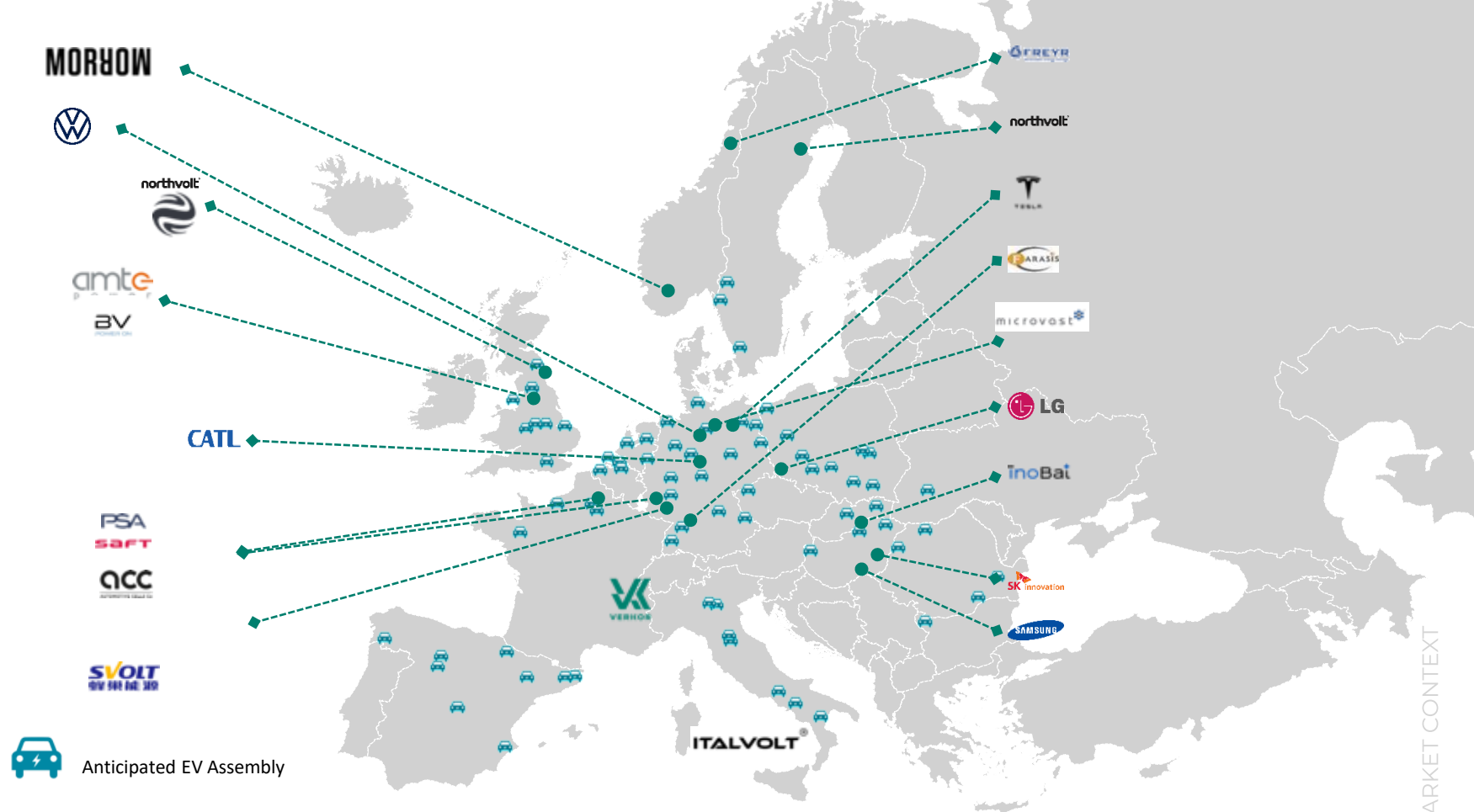
LI-ION EUROPEAN GROWTH

MOST RECENT FORECASTS ARE CONSISTENT WITH VERKOR'S ANALYSIS

BATTERY ELECTRIC (EV & PHEV) VEHICLES SHARES IN EUROPE FOR 2025 AND 2030

2025			26%	41%	41%	> 400 GWh/y
2030	75%	70%	52%	88%	71%	> 900 GWh/y





EUROPEAN GIGAFACTORIES MUST MEET SUCH GROWING DEMAND



TALENTS & STRATEGY

Our assets to tackle this challenge

2

HIGHLY EXPERIENCED TEAM

ENTREPRENEURS AND INDUSTRY LEADERS



Benoît Lemaignan
CEO



Sylvain Paineau
CSO



Christophe Mille
CTO



Gilles Moreau
CIO



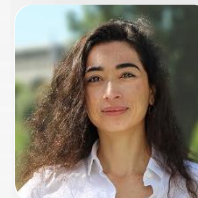
Philippe Chain
CCO



Olivier Dufour
Stakeholder
Engagement



Anna Teyssot
CMO



Myriam El Kara
Supply Chain



Sam Kim
Operations



Charline Baechele
Finance



KEY SUPPORTERS

FOR A EUROPEAN BATTERY VALUE CHAIN

ARKEMA
INNOVATIVE CHEMISTRY

 **TOKAI COBEX**

Schneider
Electric

Capgemini

**Renault
Group**

IQT
VENTURES



IDEC
— GROUPE

DEAMETER
FAET

COOPERATIONS ACROSS **THE VALUE CHAIN**



A TECHNOLOGY INTENSIVE COMPANY

High Performance Battery Cells
for Premium Cars



Robust product line-up:

Pouch and cylindrical cells

Performance oriented (power & durability)

CO2 eq → 1/3 than worst case EU

Range of 650 – 770 Wh/L

Manufacturing Processes based on
Industry 4.0 technologies



Modern digital foundation driving:

Smaller footprint

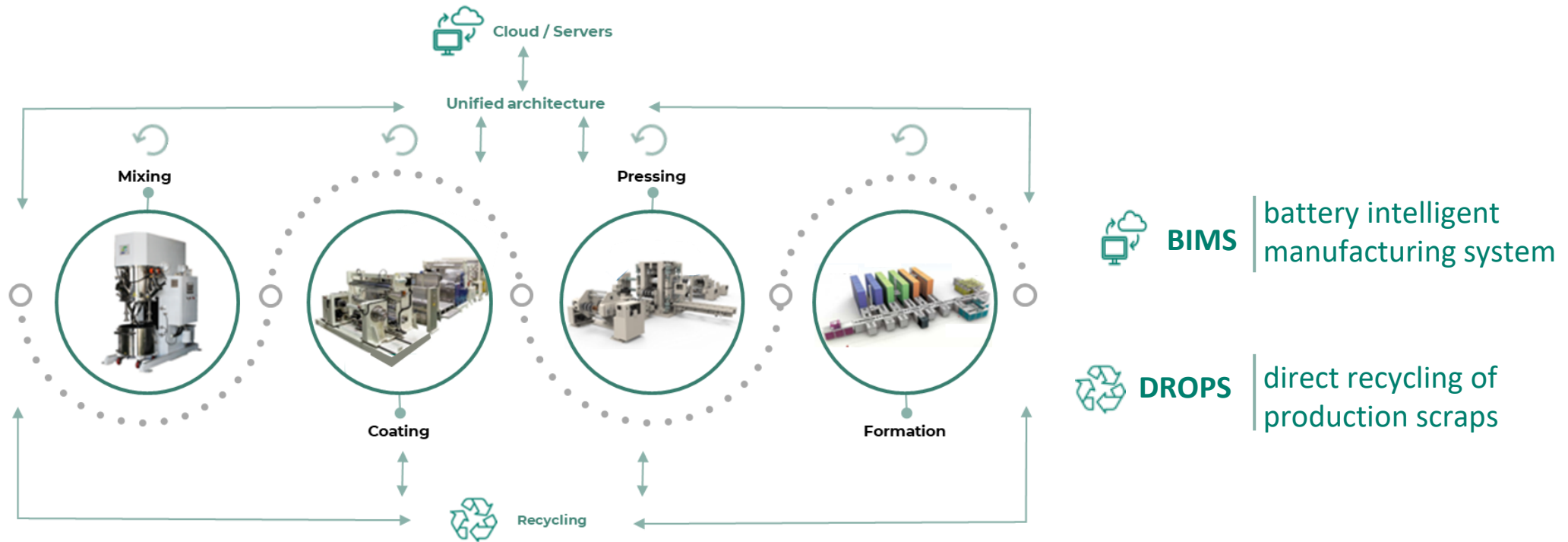
Fewer machines

Less Scrap

Lower labor cost

EXCELLENCE MANUFACTURING

KEY ENABLERS



Through a unified digital platform enabling real time data analysis and optimal decision making across the production steps



INNOVATIONS

Product / Process / Sustainability / Digital

3

THE VERKOR INNOVATION CENTRE (VIC)

A **c.150 MWh/y** smart pilot line
in a **12 000 m² building**

R&D Lab to support Product Design and Validation

Testing ground for manufacturing digital innovations
leading to **cost savings** and **IP generation**

A training center for engineers and plant operators,
creating **+150 direct jobs**



SUSTAINABILITY

PREPARING OUR SUSTAINABLE AND EFFICIENT GIGAFACTORY

Local Suppliers

Qualifying active materials players with European production

LCA

Ensuring the lowest scrap rate and production waste & studying the impact of electric energy source

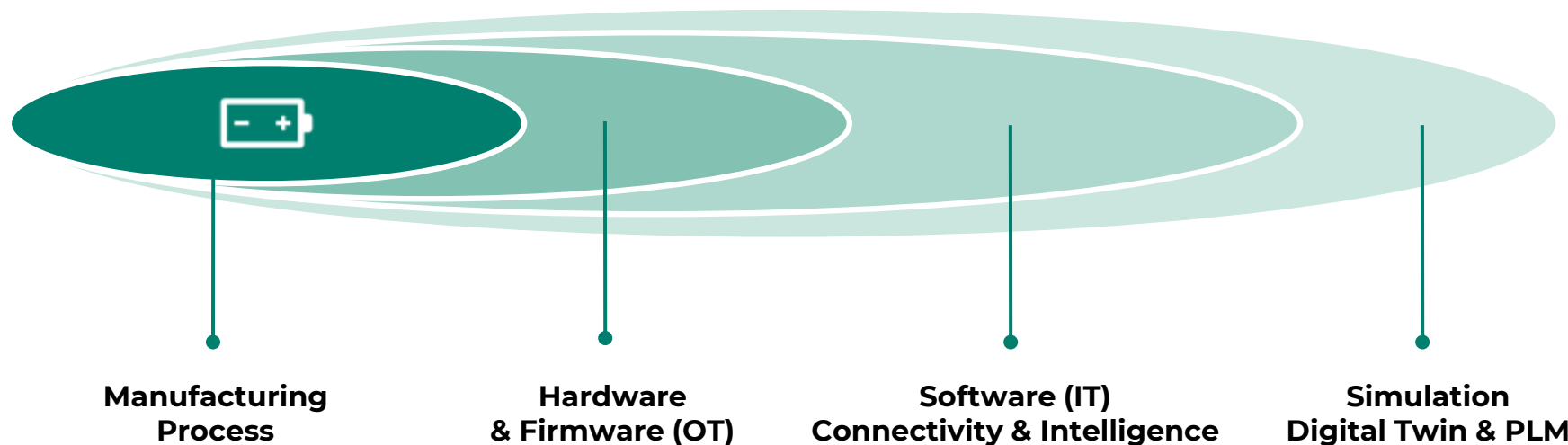
« Battery passport » traceability solution to be tested on current supply chain assumption

Raw Materials Traceability

RFI on-going for partner selection

Recycling

MANUFACTURING EXCELLENCE INNOVATIONS





VERKOR IN SUMMARY

A battery manufacturing expert set to amplify low carbon batteries production in Southern Europe

- **Verkor is a digital, smart & low carbon battery manufacturing company**
- **A 16 GWh battery Gigafactory starting operations in 2024, with a target of 50 GWh by 2030**
- **Managed by a team of industry leaders & international battery experts**
- **Supported by the best-in-class consortium in intelligent manufacturing, battery materials and EV production**
- **High plant efficiency & process yields are ensured through scrap minimization, digitalization and real time data analysis, to deliver high competitiveness**
- **The first step is the Vekor Innovation Centre, a 150 MWh pilot line and R&D lab**



Powering 300,000 cars per year
(for a 16GWh factory)



Initial production capacity of 16 GWh
and then up to 50GWh



2,000+ direct jobs



10,000 indirect jobs

An aerial photograph of a massive industrial building, likely a battery gigafactory, with a flat roof covered in solar panels. The building is surrounded by greenery and parking areas with several trucks. The text "LET'S BUILD TOGETHER" is overlaid in white outline font.

LET'S BUILD TOGETHER



**THESE SMART & LOW CARBON
BATTERY GIGAFACTORIES**