

**BMW  
GROUP**



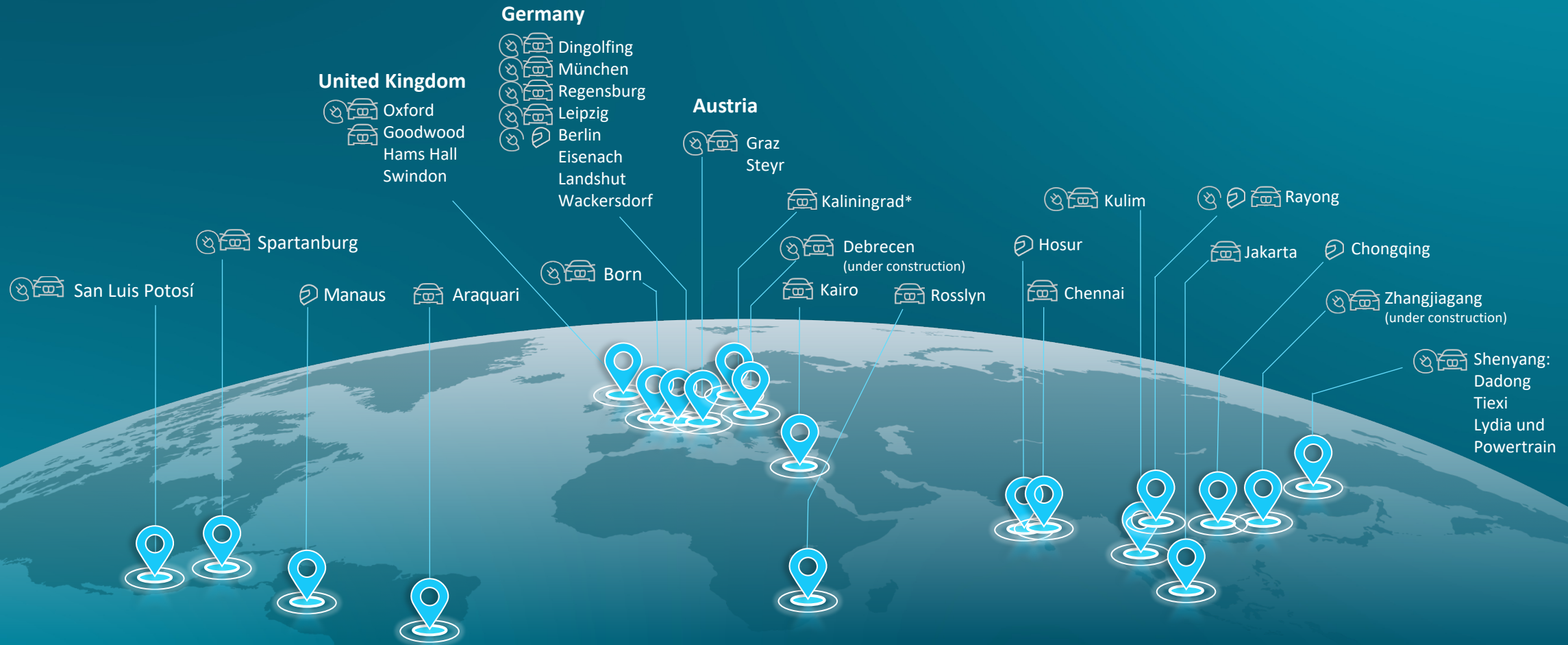
# TRANSFORMATION OF BMW GROUP'S HOME PLANT

PETER WEBER, DIRECTOR BMW GROUP PLANT MUNICH.

7<sup>th</sup> December 2022



# INTERNATIONAL BMW GROUP PRODUCTION NETWORK. MORE THAN 30 PRODUCTION SITES ALL OVER THE WORLD.



\*) Due to the current geopolitical situation, local production is suspended until further notice.

# THE FOUR FOCUS TOPICS OF THE TRANSFORMATION.

ELECTRIFICATION



SUSTAINABILITY



DIGITALISATION



PROFITABILITY





# AUTOMOTIVE INDUSTRY IN TRANSITION. BMW GROUP GOES ELECTRIC.



**2023**

13 all-electric models (BEVs)



**2025**

2 Millionen BEVs delivered



**2030**

50% of global sales are BEVs





# BMW iFACTORY.

RESOURCE-EFFICIENT  
CIRCULAR

## GREEN



EFFICIENT  
PRECISE  
FLEXIBLE

## LEAN



## DIGITAL



DATA SCIENCE  
ARTIFICIAL INTELLIGENCE  
VIRTUALISATION

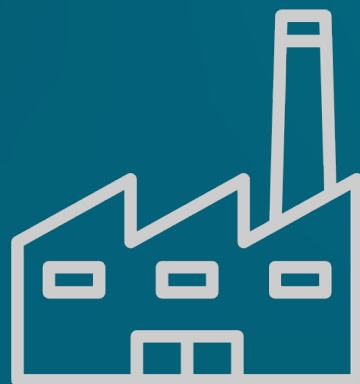


# BMW GROUP PLANT MUNICH. FACTS & FIGURES.



**>7.000**

The over 7,000 employees of Plant Munich come from more than 50 different countries.



**>620.000m<sup>2</sup>**

... is the production area at the Munich plant.  
Our plot is "only" 500,000m<sup>2</sup> in size.



**63sec.**

Every 63 seconds a BMW runs from the production line.



**3 car models**

We produce three different models of BMW 3 and 4 series with all types of drive trains on one production line.



**>50.000**

...fully electric BMW i4 were produced in 2022 at Plant Munich.



# WE ARE TRANSFORMING THE MUNICH PLANT WITH ONGOING PRODUCTION OF OVER 900 VEHICLES OF 3 DIFFERENT MODELS PER DAY.

## Step 1 2016 until 2018

- New paint shop and extension of body shop
- Launch of new generation BMW 3 series models



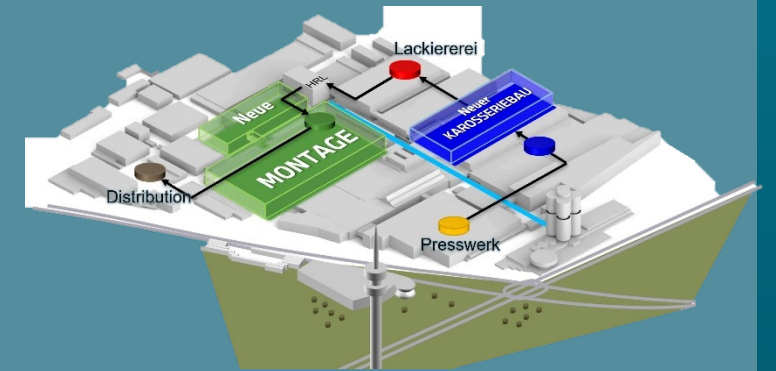
## Step 2 2019 until 2021

- Adaptation of assembly and bodyshop
- Ramp-up of BMW i4 as the first fully electric vehicle



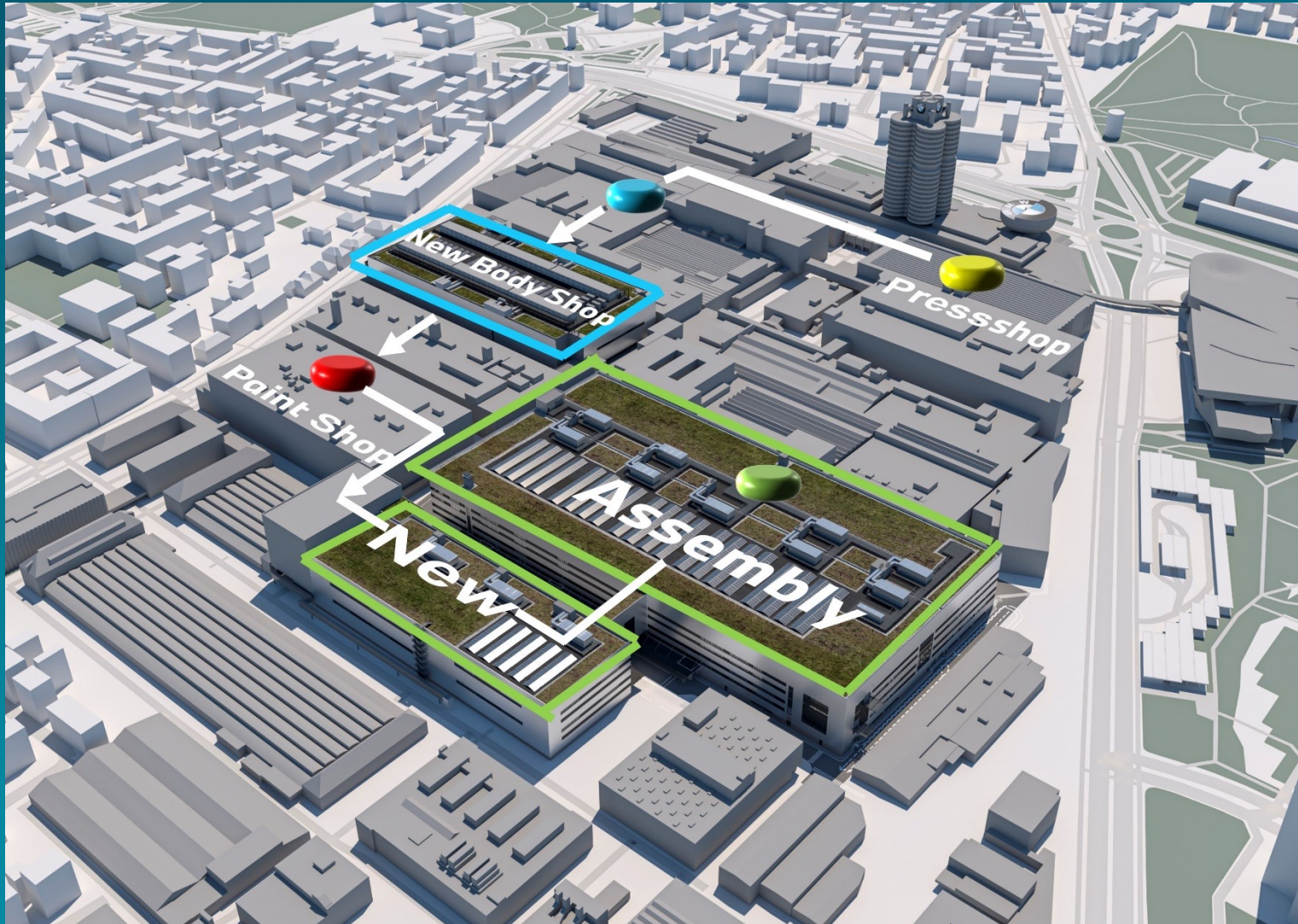
## Step 3 since 2021

- New assembly and logistics structures, new body shop
- Start of the 'Neue Klasse'





WHILE ONGOING PRODUCTION WE'LL BUILT UP A NEW BODYSHOP AND A NEW ASSEMBLY INCLUDING LOGISTICS FACILITIES UNTIL 2026.





# WE ARE TRANSFORMING OUR PLANT INTO A STATE-OF-THE ART URBAN PRODUCTION CAMPUS.

1922



2022



20XX





# DIGITALISATION AT PLANT MUNICH.

SMART MAINTENANCE



VIRTUAL WELDING



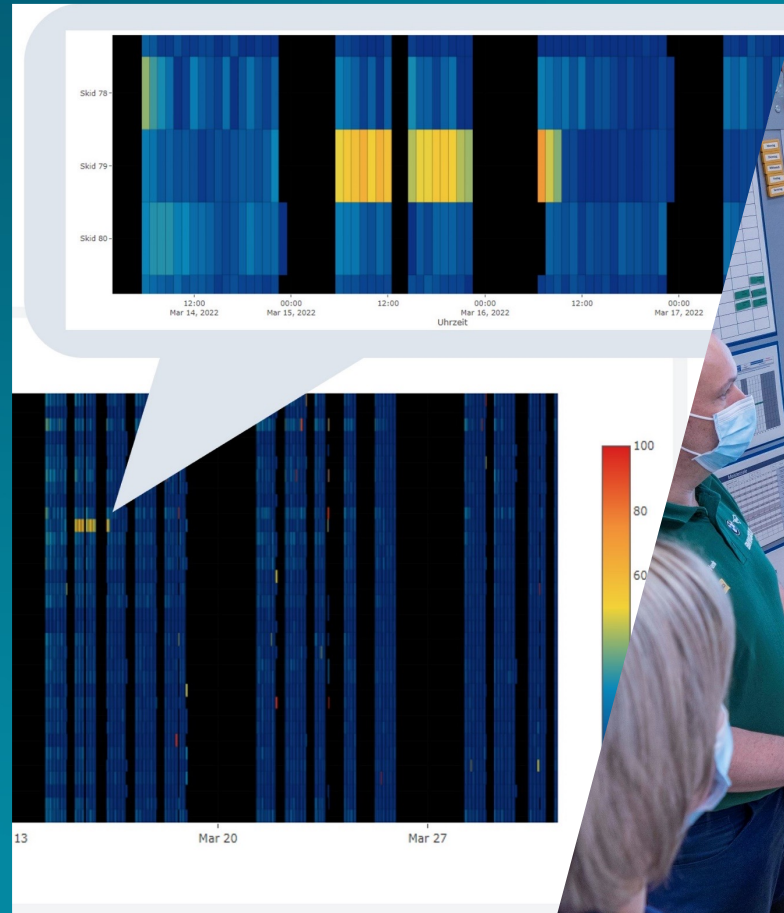
AUTOMATED SURFACE  
INSPECTION AND TREATMENT





# DIGITALISATION AT PLANT MUNICH.

## PREDICTIVE MAINTENANCE



## DIGITAL PRODUCTION BOARD (T-CUBE)



## RFID





# SUSTAINABLE PRODUCTION @PLANT MUNICH. CO<sub>2</sub>-FOOTPRINT.



Exhaust air purification at our paint shop saves **232 t CO<sub>2</sub>** per year.

Using recirculated air in painting dryer cooling zone to saves **235t CO<sub>2</sub>** per year.



By purchasing green electricity, **68,000 t CO<sub>2</sub>** has been saved every year since 2019.



Use of process heat from KWK for paint shop's intermediate dryers saves **463 t CO<sub>2</sub>/p.a.**



# SUSTAINABLE PRODUCTION @PLANT MUNICH. ENERGY SAVING.



Press shop with heat recovery systems saves **250 MWh/p.a.**



Since 2017 new paint shop with heat recovery systems saves **51 GWh p.a.** (-27%).



Installation of LED lighting saved **10 GWh p.a.** since 2018  
**2 GWh p.a.** though automatic switch-off of lighting systems



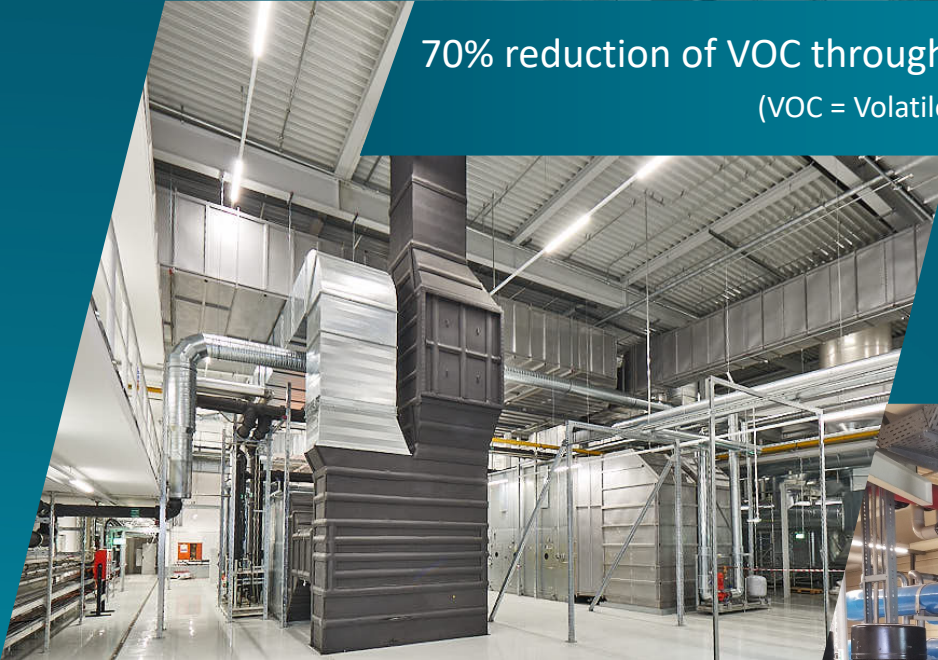
**Green hydro electricity** from the close river Lech for BMW i4 production





# SUSTAINABLE PRODUCTION @PLANT MUNICH. ADDITIONAL MEASURES.

70% reduction of VOC through new paint shop.  
(VOC = Volatile Organic Compounds)



Water supply: **50%** via our own shallow wells.



New wastewater facility at paint shop  
saves **30,000 m<sup>3</sup>p.a.**



Reverse osmosis facility at paint shop  
saves  
6 Mio liters of freshwater p.a.



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BMW iFACTORY  
NEUE KLASSE

PLANT MUNICH  
THANK YOU.

