

# FUTURE OF MANUFACTURING

OUR RELATIONSHIP WITH CARS IS CHANGING

The number of **vehicles** in the world has **increased** since 2010.



The vehicle of tomorrow will be

-  + personalized
-  + ecologic
-  + connected
-  + autonomous

4

We have entered the **4<sup>TH</sup> INDUSTRIAL REVOLUTION**  
CYBER-SYSTEMS

## EVOLUTION OF THE MANUFACTURING PROCESS

Transformation of the assembly line

Full-kitting



100

3D PRINTERS in 2017



8 000 robots



in the **Groupe Renault plants**

1 AGV travels 30 km/day



2000 AGV



1 VEHICLE EVERY 4 SECONDS



Digital transformation

DATA generated over 1 year



Before **2019**

400 connected glasses



3000 connected watches



5000 Tablets



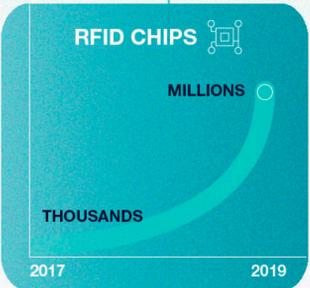
500 hectares of Wi-Fi coverage (that is 714 football pitches)



RFID CHIPS

MILLIONS

THOUSANDS



## CHANGE IN THE WAY OUR WORK IS ORGANIZED

New ways of working

+100 collaborative robots

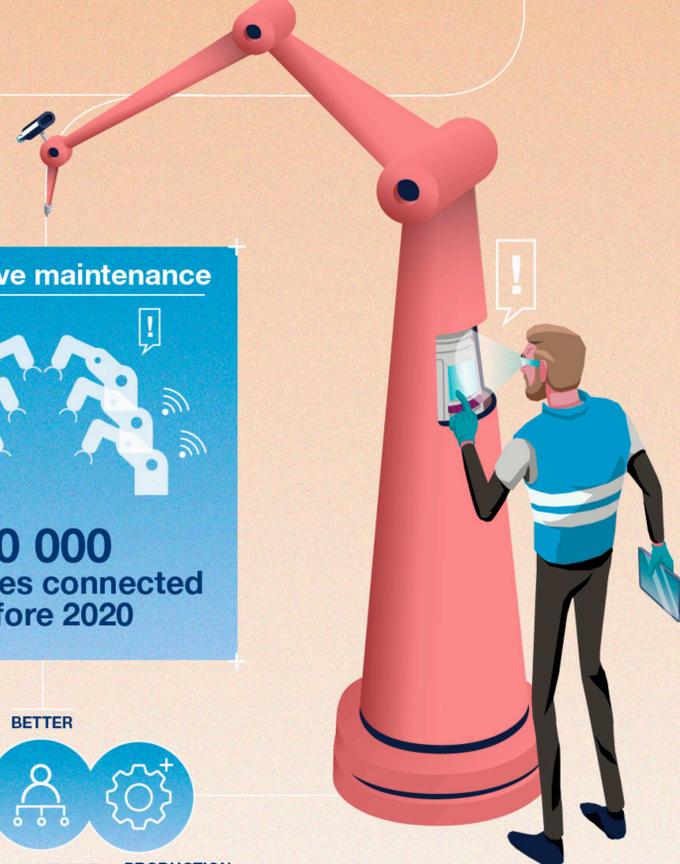


**COBOTS** help **WORKERS** with the painful tasks

10 000 machines connected before 2020

Predictive maintenance





1 HOUR per DAY

gained for the foreman thanks to management with help of tablets



-15 kg

of load for the operator thanks to the exoskeleton



BETTER





SAFETY MANAGEMENT PRODUCTION

MANUFACTURING OF THE FUTURE INVOLVES MORE ROBOTS, BUT NEW PROFESSIONS WILL ALSO BE CREATED.

