



# Flexible Modular System



SCS Concept, 09 March 2017

Edition 1



# FMS Mains Features



- **Flexibility:**
  - Embedded solution, build your product with one mobile workstation
  - VPG+ solution to manage Rework station, Mobile production bench, pilot for prototype, back up system, and more
  - Fully modular, you can install all your tools needed to do your production
- **Connectivity**
  - Fully integrated to your network for data traceability and product management
  - VPG+ Can manage all tightening brand with open protocol and Mother protocol
  - Fieldbus management
- **Productivity / Quality**
  - Product Quality, Process control, validate your assembly process
  - With VPG+ and a large screen, the operator can follow your assembly process in detail
  - Manage your report and store all your data
- **Easy to use**
  - User friendly software
  - Full functionality
  - Centralize all your assembly process on VPG+



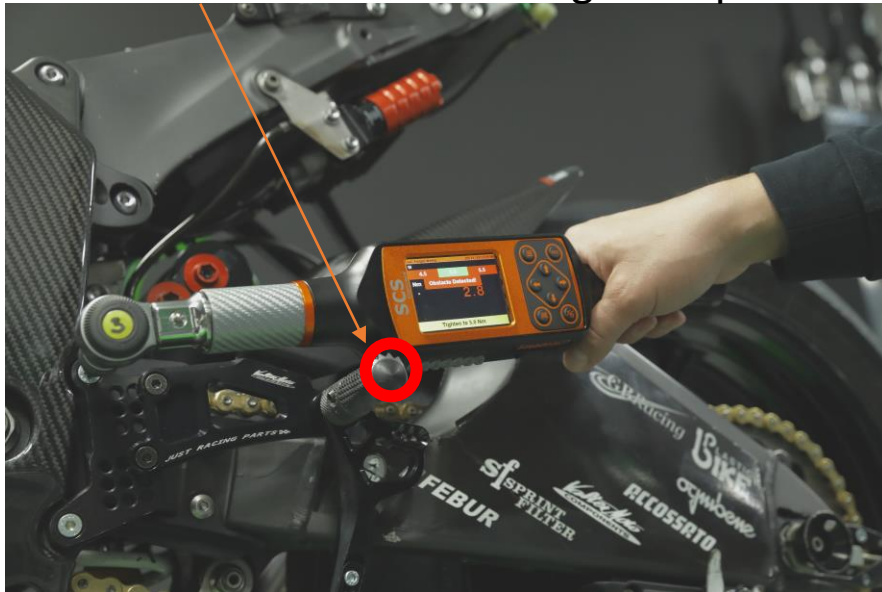


# FMS with Freedom 4S



The FMS Bench with our New Freedom 4S wrench allow you to be flexible, accurate and productive

Obstacle detection & Wrong hand position



- **Industrial Tools:**
  - Light, Robust, Can be use on all circumstance
  - Barcode reader / Positioning System, all option can be integrated
  - Industry 4.0, Full data traceability with our Wireless communication
- **Safety Solution**
  - Obstacle detection, we provide the tools that can detect if the torque is applied on a screw or on an obstacle
  - Hand Position Alarm, can detect if the operators hand on the wrench is correct
  - End Fitting recognition, We can detect if the operator has selected the right End-fitting
- **Productivity/ Accuracy**
  - High accuracy >0.5% of the read value
  - Ergonomic, we use three senses to Apply the right tightening
    - Led's / Vibration / Beep / Large screen
- **Easy to use**
  - User friendly software
  - Full functionalities
  - Full compatibility with VPG, FIM and all our software





# Flexible Modular System Multi-Brand solution

FMS is design to be fully compatible with all product available on the market through Open Protocol. Our system can manage assembly tools, but also some process with manual check.

- DC Power Tools w/cable
- Assembly Systems
- Smart Battery Tools
- Digital Torque / Angle wrenches
- Non-Torque related applications



## A multi-Brand solution



### Functionalities

- Operator guidance
- Data traceability
- Product validation
- Configurable report
- Build in error proofing
- Manage Multi-brand tools
- Manage all step of your process with 1 tool

**Delivering Significant Savings In  
Flexibility / Functionality  
Time & Cost with a Proven Economic Solution**

**Other brands**

Example FMS solution w/3 Torque wrenches managing torque operations from 3 to 600Nm  
VPG+ integrated with Wi-Fi communication to the customer network





# Flexible Modular System

## Some applications



Example - FCA  
FCA FMS Pilot build bench  
w/Power tools & Tq. wrenches



Example - FCA  
FCA FMS rework bench  
w/Tq. wrenches



Example - BMW  
FMS rework bench  
More than 150 bench's sold to BMW



Example- Bugatti  
Bugatti w/Tq. wrenches & Smart Battery Tools  
for Production.



Example- Maserati  
Maserati FMS bench for  
Production w/battery  
& cable power tools  
+ Tq. wrenches





# VPG software, guides your production



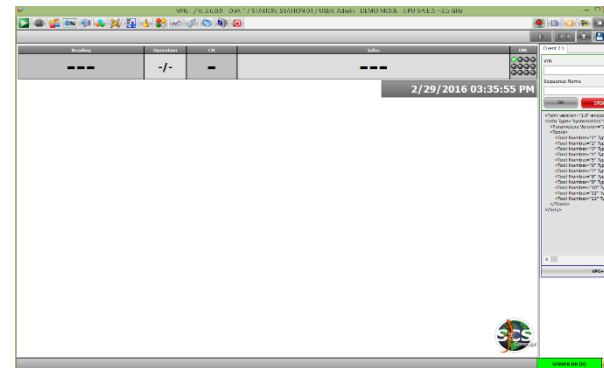
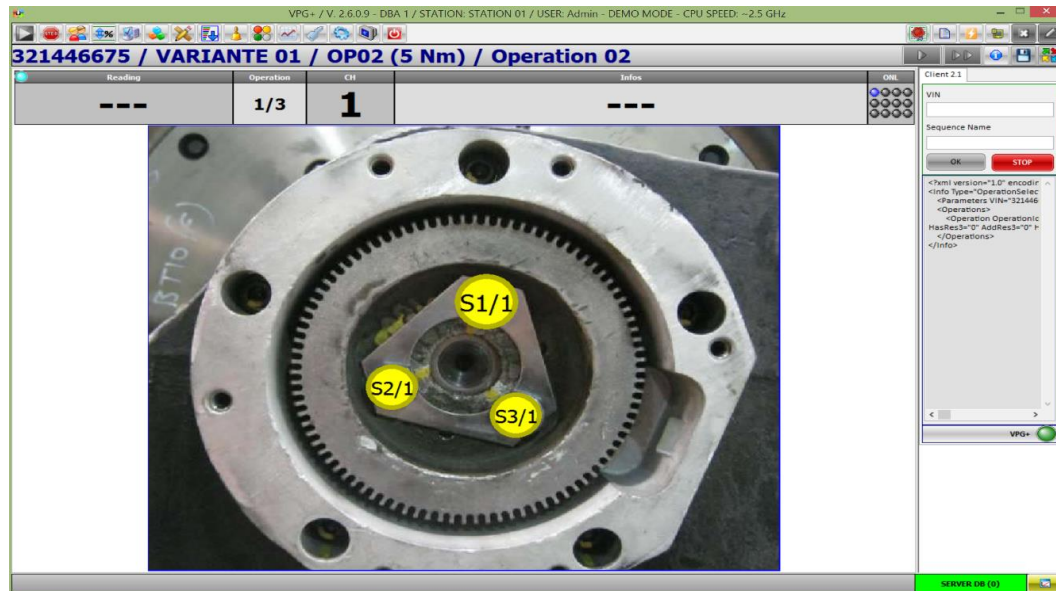


# VPG software, guides your production

## VPG Software (Mode 1: Stand alone station)

can be as simple as Operator Guidance:

- Station Operator guide
- Training tool for new operator
- Connect other vendor tools to Operator/visual guidance
- 20 different tools can attach to a station
- Simple error proofing in station for all tools





# VPG software, guides your production

## VPG Software (Mode 2 : Data collector)

- Data collection with:
  - Oracle
  - Microsoft Access
  - Microsoft SQL Server
  - SQLite
- Any SCS Concept tool can report
- Multi-brand tools through Open Protocol can collect data, show HMI or Operator guidance, and error proofing in station.
- Some proprietary protocol like Cleco & AMT, etc







## VPG Software (Mode 3)

# Production

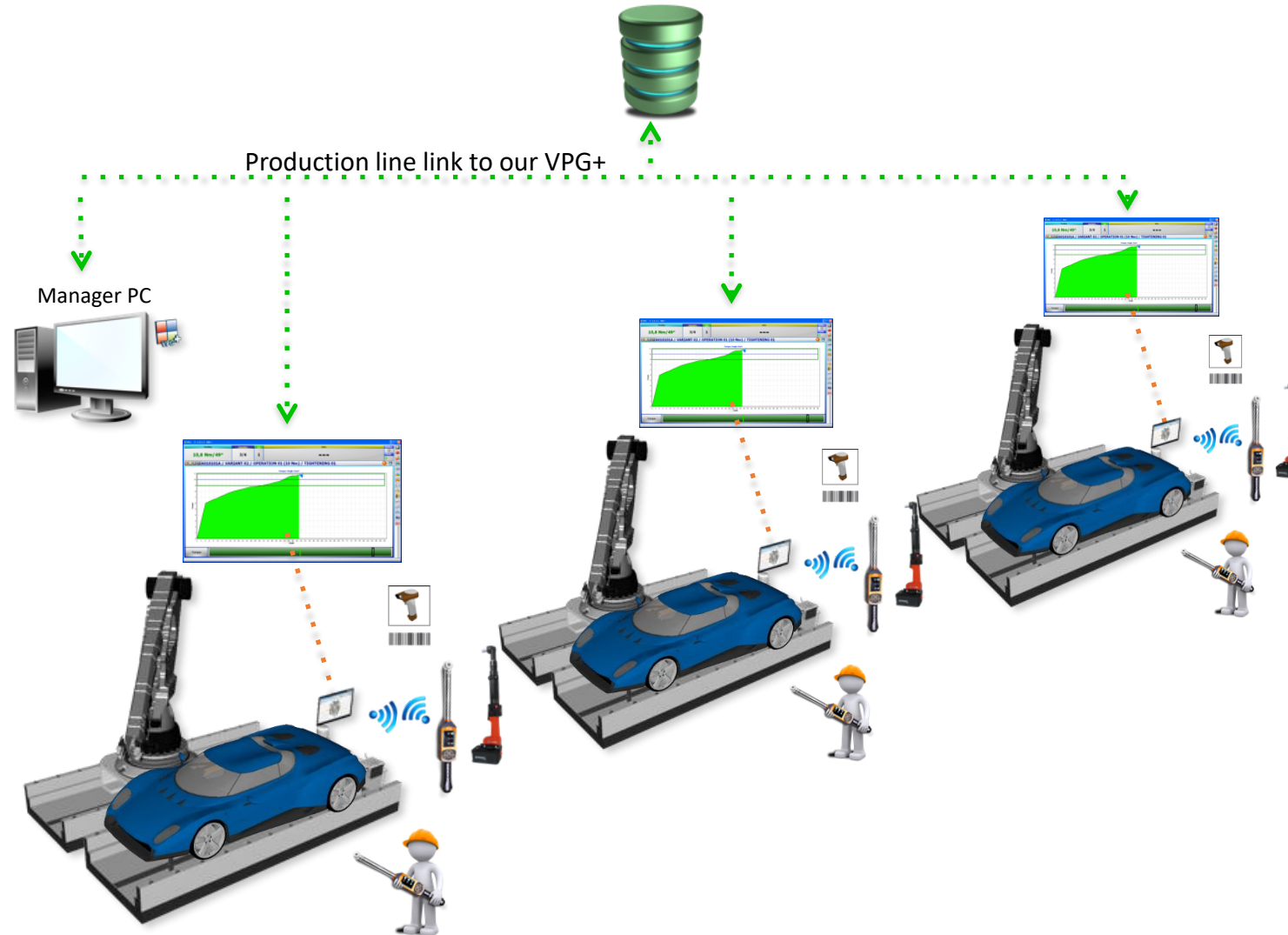
Full production line control





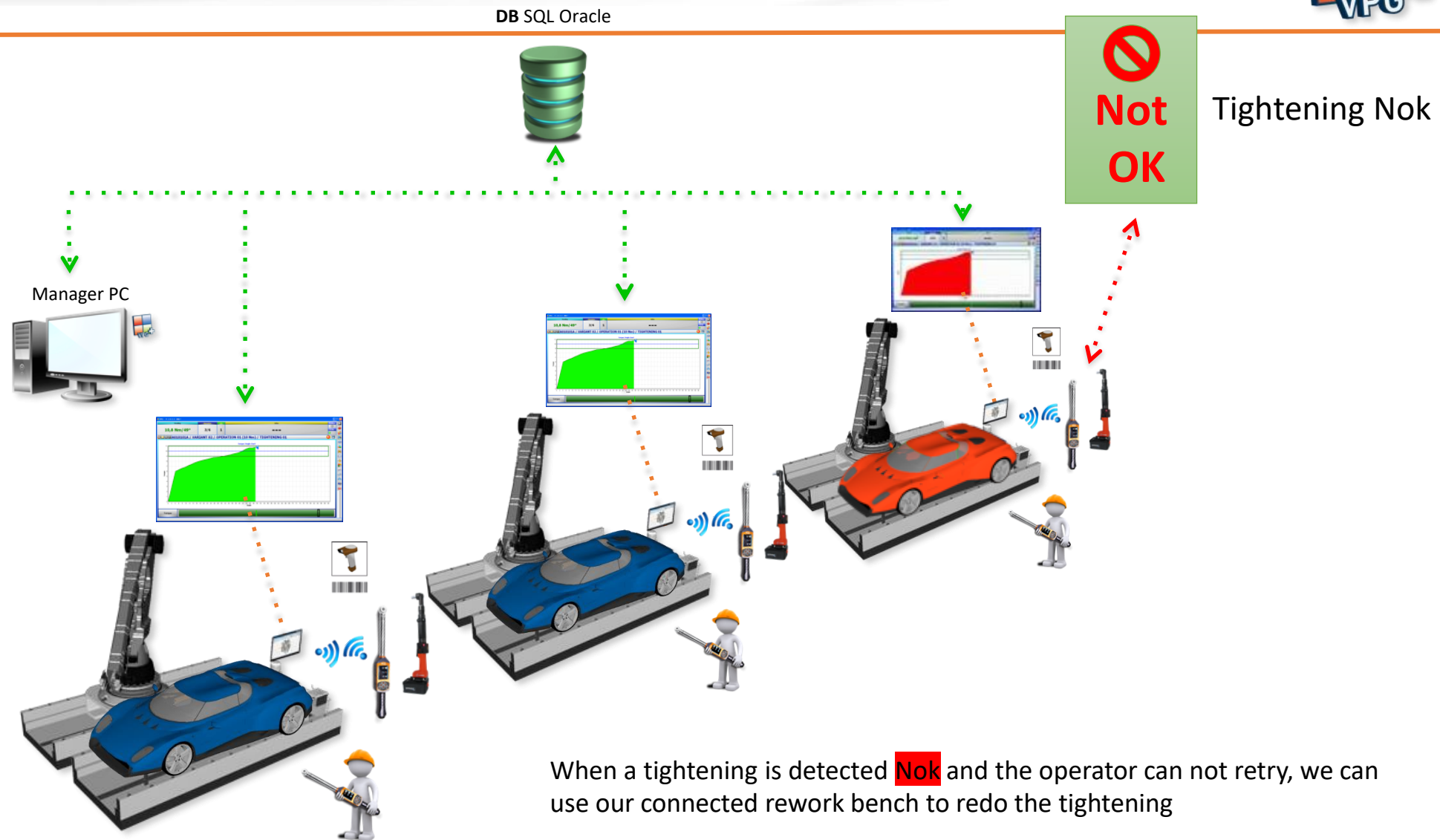
# Production: Rework bench link to VPG

DB SQL or Oracle



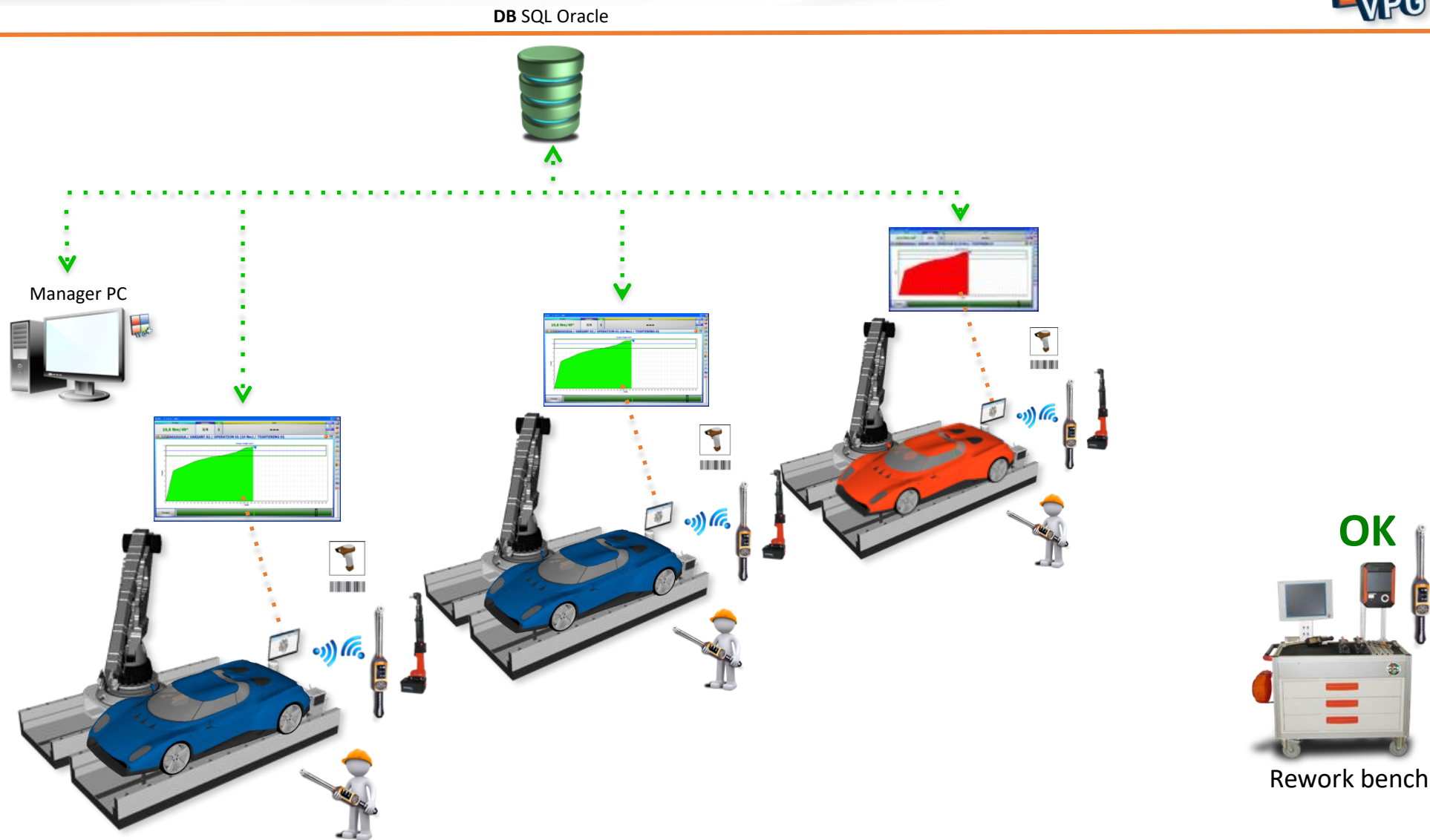
- Data Collection
- HMI solution
- Plant management
- VIN management
- Global overview
- Alarm management
- Export XML management





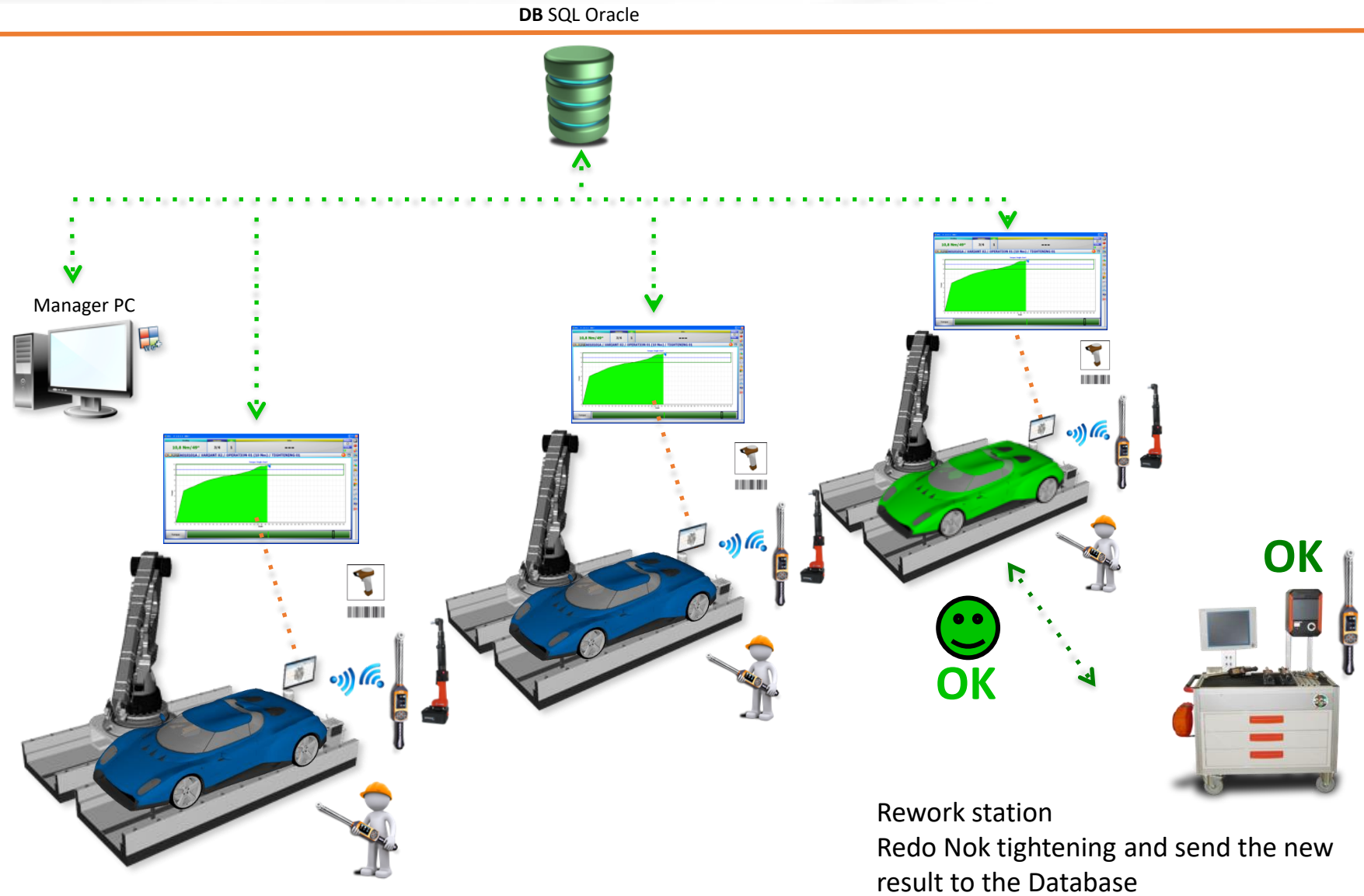


# Production: Rework bench link to VPG





# Production: Rework bench link to VPG





# SCS Concept Group

[www.scsconcept.com](http://www.scsconcept.com)