



# Innovative IT for complex business problems

## AI for Industry International Congress

# B12 aims at solving your most complex business problem with state of the art IT and AI solutions



## > Our services:

- ◇ Custom software development with Open Source Technology
- ◇ Advanced data analytics and AI, including advice on ethical AI
- ◇ Advice and support to develop and analyse your IT strategy and digital innovation



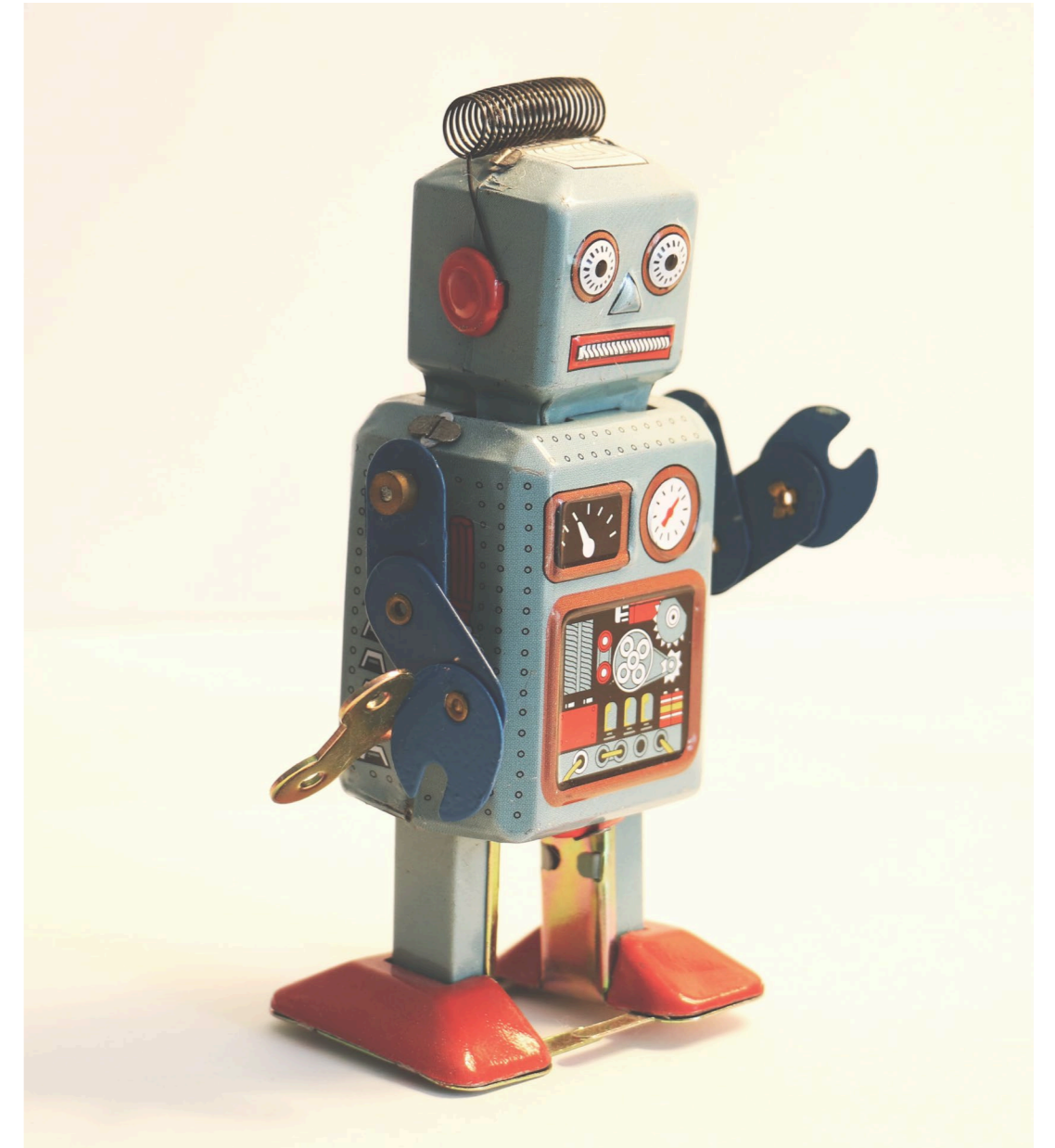
## > Our DNA and our values:

- ◇ Think outside the box, be innovative
- ◇ No products, the intellectual property of the developed solutions are transferred entirely to our clients



# The most important for B12 is to bring real added-value to your company

- › The success of an AI project relies :
  - ◊ A real business problem will ensure:
    - ▶ added-value of the project
    - ▶ a team willing to use the developed AI solution
    - ▶ maintaining the solution in time
  - ◊ Data in quantity and quality
  - ◊ Mastered, adapted technology
- › We don't believe in AI just for AI or to use the data, the solution needs to address a real business problem



# B12's AI solution development follows 6 steps

- › Understanding your business challenge/need
- › Making sure there is not an existing solution/product that would fit your need
- › Assessing the feasibility:
  - ◊ Data availability, if necessary
  - ◊ solution to cope with 'Small data'
  - ◊ Data quality
  - ◊ Technologies
- › Developing a proof of concept
- › Productising your AI solutions and integrating in your processes
- › Maintaining and continuously improving the solution



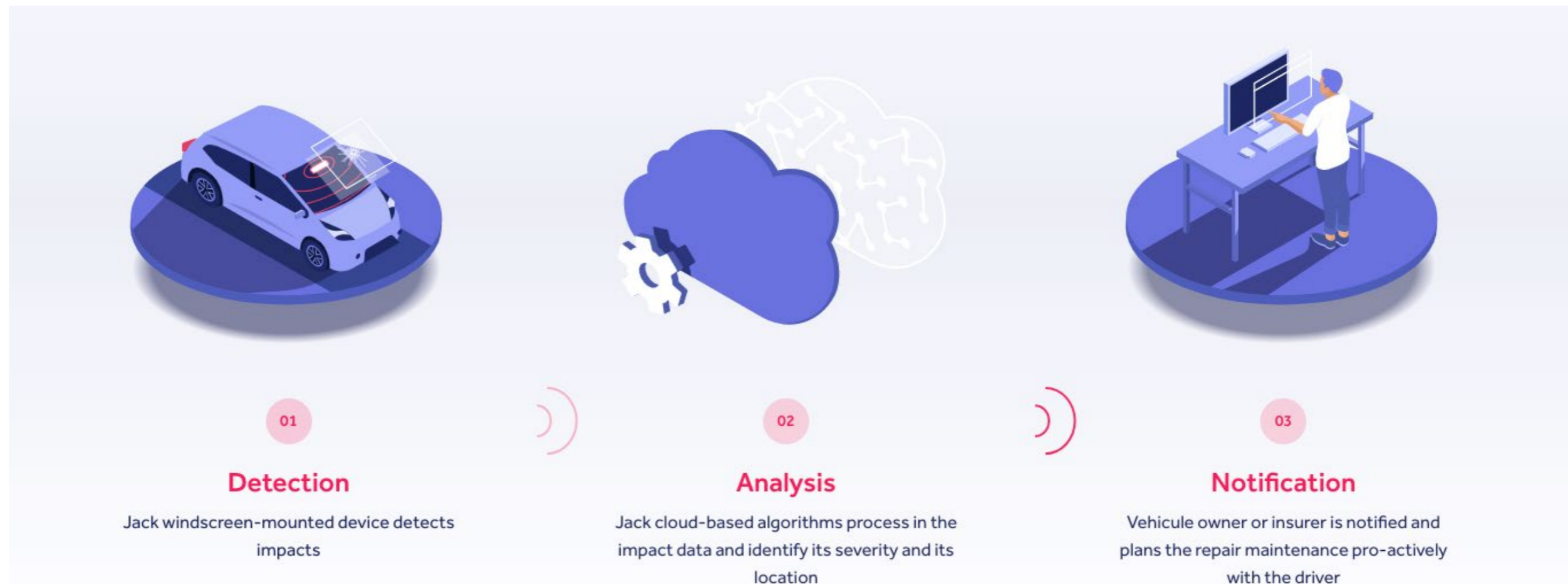
# Use Case 1 - Smart Jack by AGC

- › **Challenge:** Detecting whether the car windshield needs repaired or not, after it has been hit, in real time and without human intervention
- › **Added-value:** Development of a new, innovative AGC product
- › **Data:**
  - ◊ Acoustic signals recorded by the jack device and mounted on the windshield



# Use Case 1 - Smart Jack by AGC

- › **Data:** mix of data gathered in a laboratory environment and on the road
- › **Technology:** complex AI algorithm
- › **Advancement:** currently in production, continuously improving the performance of the solution
- › More information on the product: <https://smart-jack.com/>



# Use case 2 - Monitoring Application for an important developer of industrial photovoltaic plants



- › **Challenge:** Creating a custom monitoring and reporting platform retrieving data from third party systems which would allow to:
  - ◊ Assist their service team with the detection of anomalies in photovoltaic production site
  - ◊ To predict energy produced by DC/AC inverters for the coming days
- › **Added-value:**
  - ◊ Automatisation of the reports for the plants managers
  - ◊ The detection anomaly helps their service team to act faster and in a more targeted way
  - ◊ The energy prediction helps plant managers and electric grid stakeholders keep the grid under balance.

## Use case 2 - Monitoring Application for an important developer of industrial photovoltaic plants

### > Data:

- ◇ Historical energy production data
- ◇ Weather data

### > Technology: AI algorithms for the anomaly detection and the production

### > Advancement: In production, continuous improvement of the performance of the different algorithm and development of new features for the application





# Use case 3 - Digital Twin for large chemical production company

- › **Challenge:** Fully model a chemical production plant
- › **Added value:** reduction of the time needed to determine the optimal values of critical operating parameters (rates of chemical flows, temperature, gas pressure, etc.).
- › **Data:** Less relevant as the solution is based on deterministic algorithms (over hundred of chemical and thermodynamic equations)



# Use case 3 - Digital Twin for large chemical production company

- › **Technology:** an online application to optimise in a simple and intuitive way the critical dimensioning and operating parameters for more than forty different factory architectures.
- › **Advancement:** delivered to the client



# Use case 4 - Unlock AI

- › **Challenge:** Recommend a replacement lock from F. Georges catalogue based on photos of a defective lock.
- › **Added value:**
  - ◇ Identification of the best replacement
  - ◇ Determination of gaps in the catalogue
  - ◇ Increased autonomy of clients
  - ◇ Time gain



# Use case 4 - Unlock AI

- › **Data:** Photos of locks labelled with their discriminating attributes
- › **Technology:** Algorithm that detects, measures and/or classifies the locks's different attributes
- › **Advancement:** POC development in progress



# | To wrap up...

- › AI solutions can solve your business problems
  - ◆ Improve your products
  - ◆ Improve your process
  - ◆ Open new business opportunities

**Thank you for your attention.**

Do you feel like your challenges may have a AI solution? Don't hesitate to reach out.

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