

## Innovate thanks to superior understanding of real usage of your product

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European Commission







# You are a manufacturer of industrial robots. Once the robot is sold, what do you know about its usage?







## In fact, the robot serves drinks!



## Could you anticipate it? Is it designed for this usage?

## Feedback loops using middle-of-life (MOL) data



## Interest is growing to exploit usage data



Adjustment

## A research project supported by European Union



#### H2020 programme

First major financing of research in Europe Budget: € 80 billion



EU Framework Programme for Research and Innovation

#### **FALCON: 13 European partners**



Academics/ researchers







4 industrial companies: Business cases





White & **Brown goods** 

**High Tech** Healthcare Product

Clothing







 4 business partners help us to develop the platform by identifying their business cases



# Data Pixel: dimensional quality control solutions manufacturer



• A B2B business case related to 3D metrology products



## Data Pixel – two main data sources





• Environmental conditions (temperature...)



Sensors

• Feedback of users/clients (error detection, user experience...)

#### **FALCON's platform**

- a unified knowledge platform, combining log files and user feedback
- a collaborative environment for the involved departments





## • How to improve the calibration process?

- Failure cause detection
- Calibration plan

#### • A scenario proving the concept (extract)



## **Impact on process**





Two separated databases, no knowledge creation

## **Impact on process**





#### A unified database enabling feedback loops



- Strong impact on collaboration culture and feedback
- Limited need for data skills: easy to use and user-friendly features to interpret data
- Ad hoc involvement of knowledge engineers to:
  - Enrich the ontology to include new concepts/keywords
  - Create new interconnection with public data sources

# Efforts are made to facilitate the adoption of the solution







#### The regulatory framework evolves

#### • Reglementation



 Restriction on personal data exploitation: CNIL + GRDP (General Data Protection Regulation) that regulates data exploitation in EU

#### Data property, confidentiality



- Who owns the collected data?
- How to prevent data from high jacking?

## Recommendation for FALCON adoption



## A change of paradigm bringing deep impact on people

**Start with processes** 



**Experience with a pilot** 



Adapt the platform to deploy the chosen business cases



Enrich the ontology



## **Thank You!**





<ul> <li>Objective:</li> <li>Theme:</li> </ul>	Innovative product-service design using manufacturing intelligence FoF-05-2014
Call:	Factories of the Future
Lead:	BIBA – Bremer Institut für Produktion und Logistik GmbH
Duration:	36 Months
Start:	2015/01

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