



# The ROBIN platform

Presented by



## ENGIE TODAY



LOW CO<sub>2</sub> POWER  
GENERATION



GLOBAL  
NETWORKS



CUSTOMER  
SOLUTIONS

23 BUs close to clients





## Corporate Strategic Drivers

“

Our ambition is to become the world leader in the **zero-carbon** transition “as a **service**”

”

“

For ENGIE, it is as important to master **digital technologies** as the activities of the **energy business themselves.**

”



*Isabelle Kocher,  
CEO Engie*



# BU Generation Europe



Activities in **8 countries** on **68 sites**

(France, Belgium, Germany, Netherlands, Spain, Italy, Portugal, Greece)



**Ca. 1500** employees



**20,8 GW** of installed capacity of which:



**15,6 GW**  
Gas



**2,9 GW**  
Coal & Co-Combustion



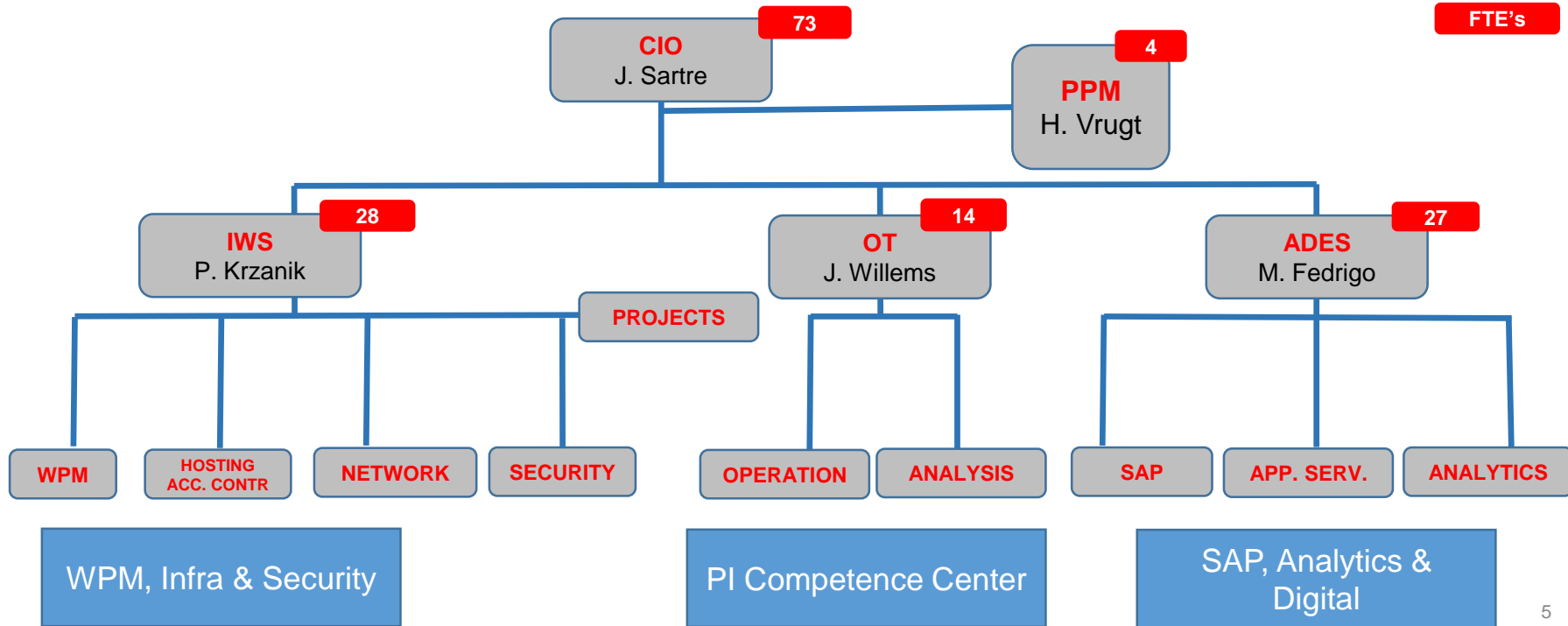
**1,3 GW**  
Hydro/pump



**0,3 GW**  
Biomass



# BU Generation Europe IS Department



# Retrospective

## OSIsoft. EMEA USERS CONFERENCE OCTOBER 16-19, 2017 | LONDON

- Some statistics:
  - 17 PI Systems, +400.000 PI tags
  - 7 countries
  - Across 6 ENGIE Business Units

### The relaunch <sup>(1/2)</sup>

- 2016 – 2017: New organisation, new management, new vision...
- ENGIE as a company: aiming for innovation
- Market: Big data, industry 4.0, cloud, ...





# Challenges

## Zero-carbon for BUGen?

Does this fit the BUGen DNA?

- **Sale** of coal assets
- “Gas is an essential ally of renewables”
- Other than fossile gas
- **Flexible** operation
- New **CCGT**'s ?



# Challenges

## Digital for IT?

- Be more competitive
- Be more agile
- Be more digital
- Push the digital mindset
- Data analytics





# Challenges

## About bubbles...

- Operational data  $\neq$  social media data
- Stating the obvious
- Unsupervised Learning vs. SME's



“

We do not need to invest in a new **big data platform**, because we already have one.

”

# Vision

ROBIN *as SaaS*



# Vision

We wanted to set-up a **centralized** PI System infrastructure, state of the art with **HA**, **Vision** and **AF**, connected to **all our plants** that uses **scalable cloud technology** and managed from A-Z by our **internal** department of operational technology.

Even more we want to offer this **SaaS platform** (Robin) to **all industrial assets** within the **ENGIE** group, worldwide.

Robin should also be the foundation for the development of **new digital App's** that make use of **operational data** from the plants.



# Success Factors

## Modern PI & Osisoft

- Technical capabilities of the Modern PI System allow centralization
- Osisoft supported us in this transformation both technically and commercially
- What we expect from a sustainable business partner





# Success Factors

## Competence

- Team of 13 PI System **specialists** having different profiles
- **Experience** since 2004
- Stakeholder **proximity**



# Success Factors

## Infrastructure

- It starts with the network...
- An equivalent story for SAP
- Why a private cloud?
- Not that straightforward



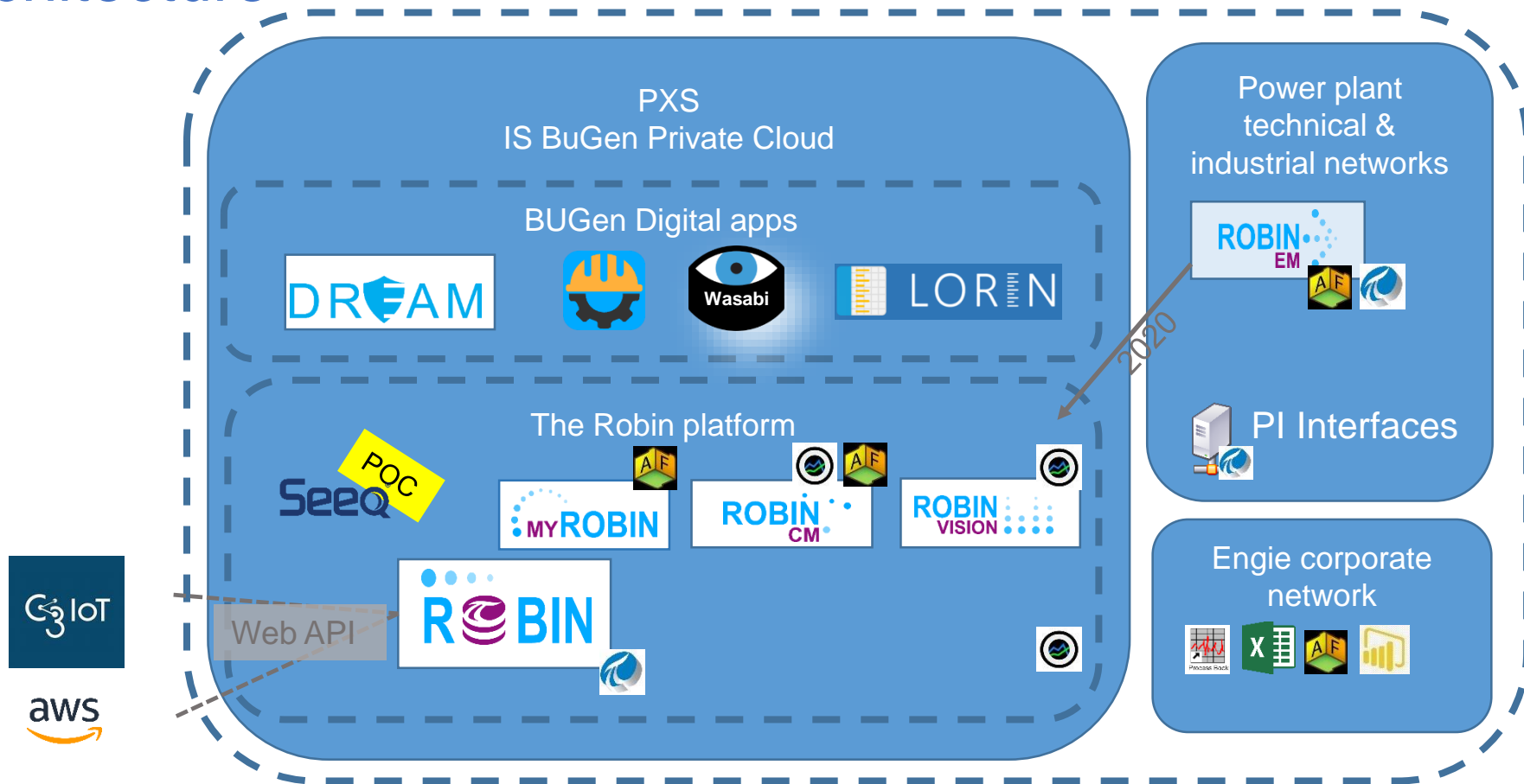


# Result

- Branded: the Robin platform
- 371,000 tags and expanding
- Ecosphere:
  - Central core: PI – AF
  - Modules: CM, DX, Vision,...
  - Digital satellite apps
- 7 other BU's are adopting to Robin



# Architecture



# Managing Robin

## Policy

- Definition
  - Access rights structure
  - Tag configuration policy
  - AF configuration policy
- Training
  - In house
  - Learning repository
- Enforcement
  - Tag configuration checks
  - AF configuration checks



# Managing Robin

## Organization

- IS OT
  - Operations
  - Business analysis
- Business Units
  - Tag Managers
  - AF Champions
  - Key Users



# Managing Robin

## Policy

guidelines

documentation

training

enforcement

sharepoint

in house

config checks

## Role definition

business

PICC

tagmanagers

key users

champions

operations

BA

watchman

## Operational

industrialisation

standardisation

monitoring

24/7 guard

interface config

access rights

auto mail

KPI

dashboard

checklists

Results		Messages				PointID	Activity	ConnectionId	OSUser	OSUser
ID	Time Stamp	Tag								
354	163339	2019-07-01 17:34:03.000	FR-13-AIX-GIC-SST-083-ECH1-PRESSION-SORTIE-SECOND	454558	Created	28409	FR1TM10	1483		
355	163340	2019-07-01 17:34:12.000	FR-13-AIX-GIC-SST-084-ECH1-PRESSION-ENTREE-PRIMAIRE	454559	Created	28409	FR1TM10	1483		
356	163341	2019-07-01 17:34:15.000	DSQ-ACT-IT-LEI-00-1DA-ENERGY-HOME_LOAD_CONSUMPTION_EXTERNAL	454560	Created	27457	D14/EIA181	360		
357	163342	2019-07-01 17:34:20.000	FR-13-AIX-GIC-SST-084-ECH1-PRESSION-ENTREE-SECOND	454561	Created	28409	FR1TM10	1483		
358	163343	2019-07-01 17:34:29.000	FR-13-AIX-GIC-SST-084-ECH1-PRESSION-SORTIE-PRIMAIRE	454562	Created	28409	FR1TM10	1483		
359	163344	2019-07-01 17:34:33.000	DSQ-ACT-IT-LEI-00-1MO-ENERGY-HOME_LOAD_CONSUMPTION_EXTERNAL	454563	Created	27457	D14/EIA181	360		
360	163345	2019-07-01 17:34:38.000	FR-13-AIX-GIC-SST-084-ECH1-PRESSION-SORTIE-SECOND	454564	Created	28409	FR1TM10	1483		
361	163346	2019-07-01 17:51:09.000	ES-CAR-12EOH_T	282247	Edited	27868	D14/AIB408	1262		
			ES-CAR-13EOH_T	285849	Edited	27868	D14/AIB408	1262		
			ES-CAR-13EOH_T	289793	Edited	27868	D14/AIB408	1262		
			DSQ-ACT-IT-LEI-00-1MO-ENERGY-HOME_LOAD_CONSUMPTION_INTERNAL	454565	Created	27457	D14/EIA181	360		
			DSQ-ACT-IT-LEI-00-1MO-ENERGY-HOME_LOAD_CONSUMPTION_TOTAL	454566	Created	27457	D14/EIA181	360		
			DSQ-ACT-IT-LEI-00-1MO-ENERGY-FINAL_NET_ACTIVE	454567	Created	27457	D14/EIA181	360		
			DSQ-X1Z-8E-PBE-51-1HO-POWER-MAXIMUM-FORECAST	454499	Edited	27773	D14/CJH188	1365		



RA

ROBIN Analytics

[Start](#)
[Documenten](#)
[Pagina's](#)
[Contact Information](#)
[Knowledge base](#)
[Site-inhoud](#)
[ACEZAF Notebook](#)
[Bewerken](#)

[+ Nieuw](#)
[Paginadetails](#)

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Welcome to the Robin Analytics homepage.

WELCOME PAGE >

AF and PI documentation Library

Overview of available AF modules

Satellite Apps

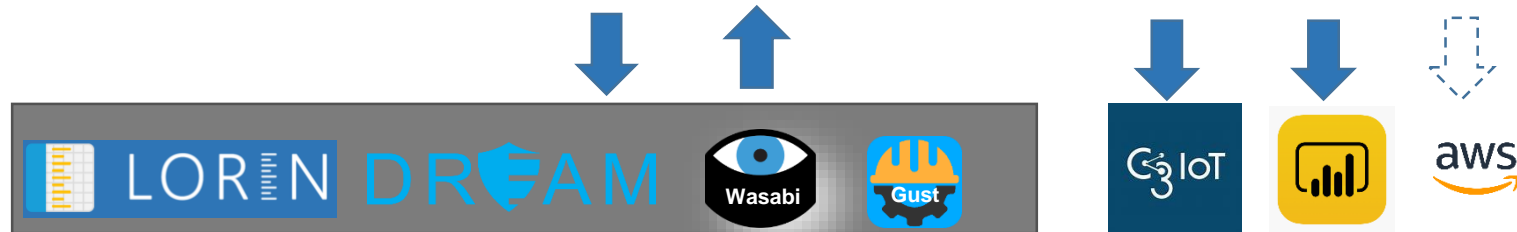
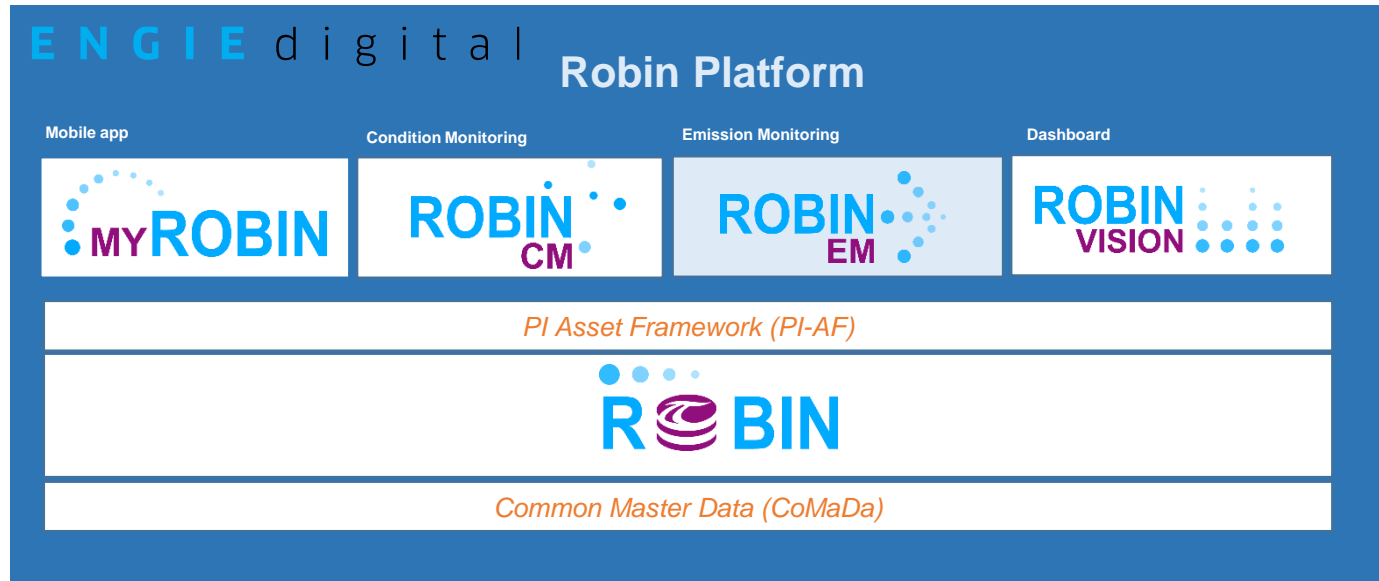
TIPS & TRICKS

Tips and Tricks

The screenshot shows the RIBIN dashboard with a dark blue background. At the top, there are three logos: RIBIN (with a red and blue circular icon), PICC Monitoring, and ENGIE. Below the logos, the text "PI-Atlas monitoring" is displayed in yellow. A list of monitoring options is shown, each with a corresponding "Open" button in a grey box with a blue border. The options are: "Server and PI counters", "Server and PI counters (for mobile)", "Network performance (for mobile)", "Web crawler overview" (with "VSRV2857" next to it), "VSRV2858" (with "VSRV2858" next to it), and "AF server metrics extended". Below this list, the text "Access control (IDTech) network info" is displayed in yellow. Underneath, there is an option "Access Control monitoring" with an "Open" button. At the bottom, the text "Power plant info" is displayed in yellow, followed by a yellow horizontal bar.



# Ecosphere



**BU Generation Europe - Connected Services**

# Real Time Information



Real-time  
Information



Alerts



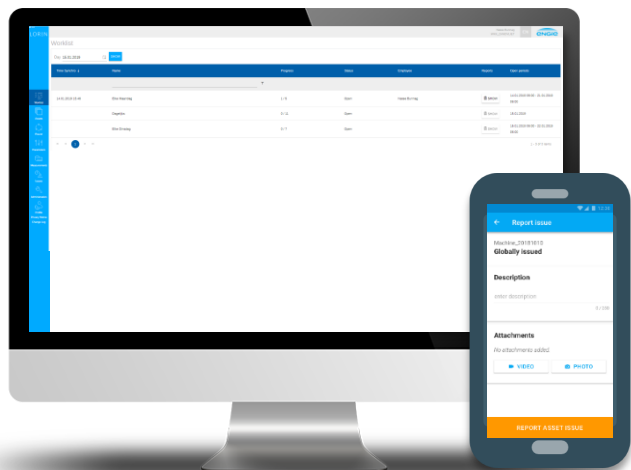
Trend  
Reporting





# LORIN

## The Inspection Round Tool



Digital round  
management

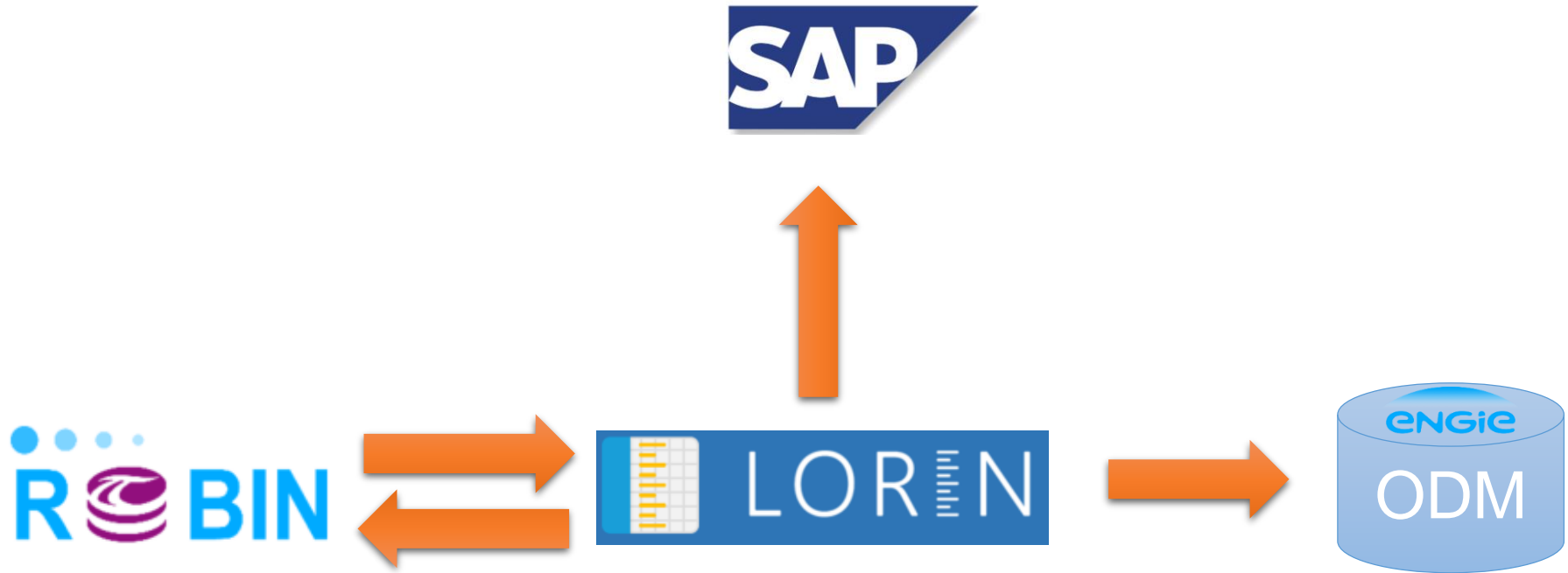


Synchronization



Issue  
Reporting





## Key Figures

1000

ROUNDS / MONTH

5

LANGUAGES/COUNTRIES

55 000

MEASURES / MONTH

100

ODM EVENTS / MONTHS

18

CONNECTED PLANTS

75

SAP NOTIFICATIONS / MONTH

# DEMO

LORIN 0.UI





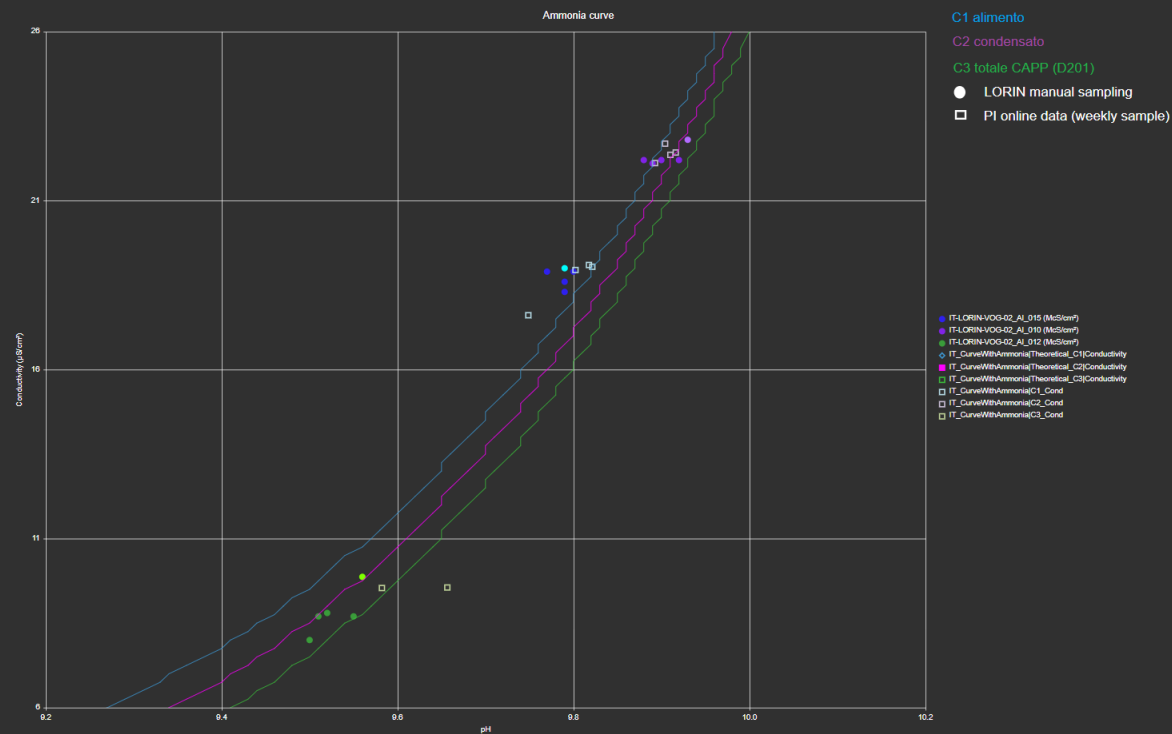
# Example: pH inspection round Voghera (Italy)

Voghera LORIN Chemical Samples

Conductivity - Acidity correlation curve



Lorin samples for Conductivity and Acidity at:



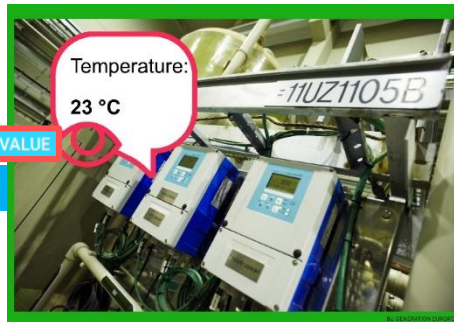
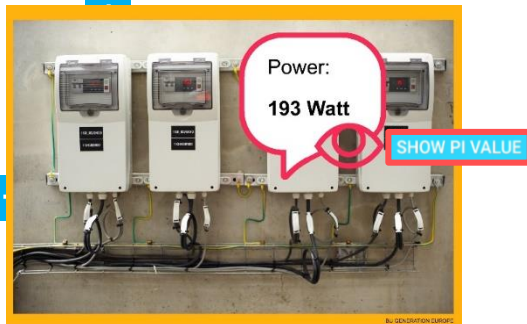
light coloured marker indicates the most recent manual measurement



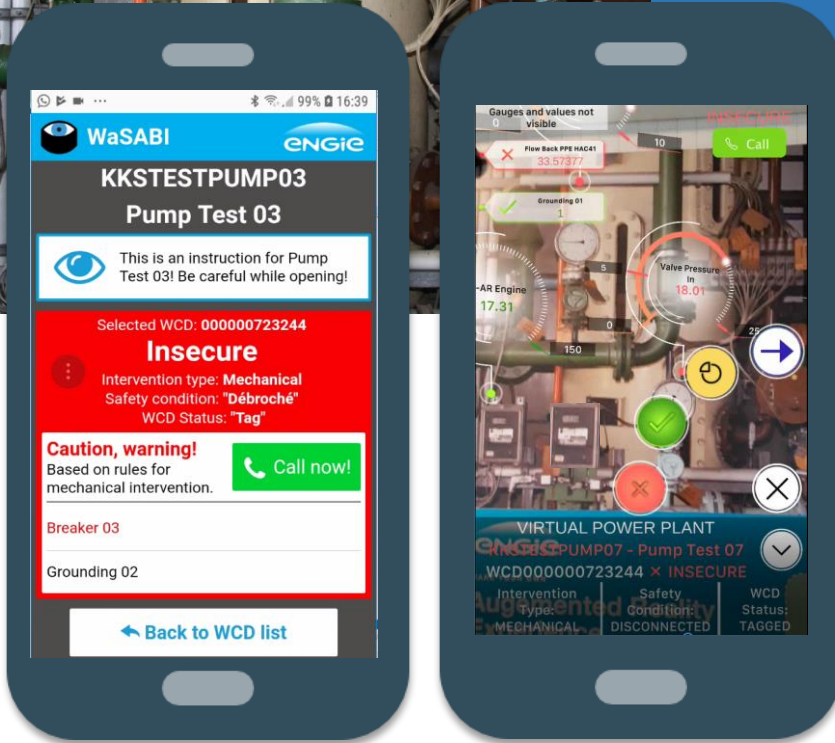
## Demo round



Hands-free inspection rounds



# The power of Wasabi + AR



## Mobile APP:

- Real-time information from PI
- Customize information overlay
- **Scanning/QR code reader** for checks and verification

# Speakers



Bart Van Brabant

Teamleader Business Analysis IS Operational Technology

Engie BU Generation Europe

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Matthieu Fedrigo

IS Domain manager Analytics, Digital & ERP systems

Engie BU Generation Europe

Matthieu.fedrigo@engie.com

# Questions?

Please wait for  
the **microphone**

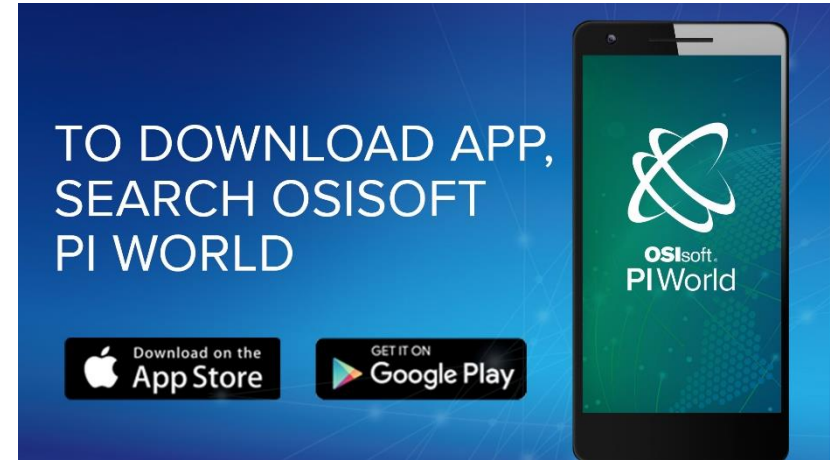
State your  
**name & company**



# Please remember to...

## Complete Survey!

Navigate to this session in  
mobile agenda for survey









## CHALLENGES

- On-line mobile access to power plants information
- Gathering different sources of data

## SOLUTION

- Web-responsive App
- Intuitive interface
- Combination of management and operational data

## BENEFITS

- Easy access to the information
- 500 active users each month
- A common view on the data stimulates cross country and BU collaboration

500

• Active users/month

5000

• AF Elements defined

47

• Plants listed

>3000

• Indicators visualized



When I'm having breakfast in the morning, I use myRobin to check what to expect when I arrive at the sites.

- Quote of the lead chemist, responsible for a cluster of 5 Belgian power plants



## CHALLENGES

- Replace the paper processes of inspection rounds
- Make sure that the issues are reported in the right information system
- Archive the data and report on it

## SOLUTION

- A tailored App customized via desktop
- User-friendly and easy to roll-out
- Connection to different systems (Robin, SAP, ...)

## BENEFITS

- Issues are easily reported
- Integrated solution (ODM/SAP/PI)
- Customised functionality
- Very high adoption rate

100

• ODM events/month

75

• SAP notifications/month

1000

• Rounds/month

55000

• Measurements/month

18

• Power plants  
• 5 languages



When we look for information a couple of months old, we don't need to look into paper binders anymore. Also, we can take pictures and videos directly on site, which enables a more precise analysis in case of issue.

— Testimony from a Shift Leader in Montoir's power plant, France





# Wasabi + AR



## CHALLENGES

- Be sure to start working on the right equipment
- Increase safety conditions of internal and **external** employees

## SOLUTION

- Web-responsive App gathering information from SAP (secured equipment) and Robin (equipment switched-off)

## BENEFITS

- Additional safety check before the intervention
- Quick access to equipment information



# The platform



## CHALLENGES

- The Energy Transition
- Digitalisation
- Agility, Competivity

## SOLUTION

- A company-wide platform
- Centralized
- Satellite apps
- Reliable partners

## BENEFITS

- Inter-BU collaboration
- Expanding user base
- Better service, lower cost
- A driver for digitalisation

371000

• Tags

225

• Interfaces

1200

• Users



We don't need a new big data platform for operational data, we already have one.  
- Julien Sartre, CIO BU Generation Europe.

