



Project Taranta

The RFID solution for Avio Aero
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Part of a great Family



Brindisi

MANUFACTURING SITE



650+
employee
51,000+
sqm

CORE EXPERTISE:

Frames&Cases, Military MRO, Tests, M&I

Air Force fleets rely on our Brindisi plant: MRO (Maintenance, Repair and Overhaul) centre of excellence for military aircraft engines. Here's the focal site for aeroderivative gas turbines for marine and industrial applications. And the finest and biggest Frames and Cases for commercial engines are also manufactured here.



TARANTA



BUSINESS NEED

- End-to-end items traceability
- Automated data entry
- Minimize predictive manual operations
- Real-time item visibility (e.g search, location)
- Automated KPI's
- Paperless



TECHNOLOGY

RFID

Pros

- No battery (passive)
- Low cost per single tag
- Tags can be attached to efficiency cards

Cons

- Not effective if shielded by metal
- Tracking obtained through gate crossing



Bluetooth Beacon

Pros

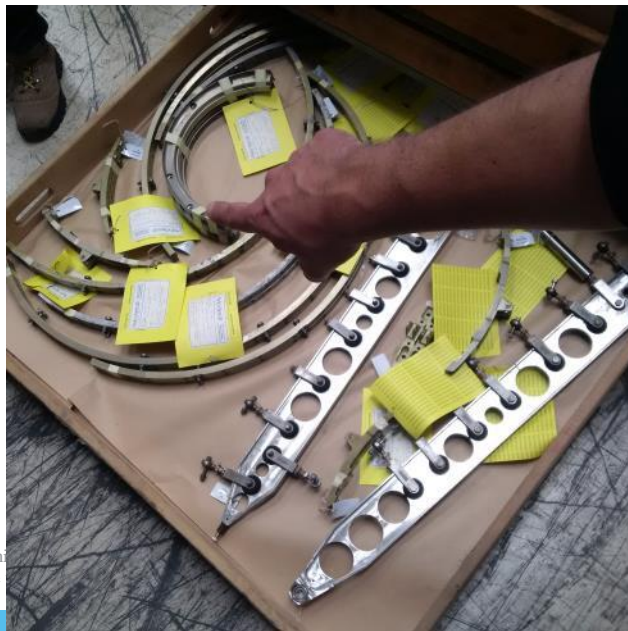
- New/promising technology
- Tracking is very accurate

Cons

- Short battery life
- Expensive (10x)
- Meant to stay in a fixed location
- IT solutions not ready for integration at a corporate level

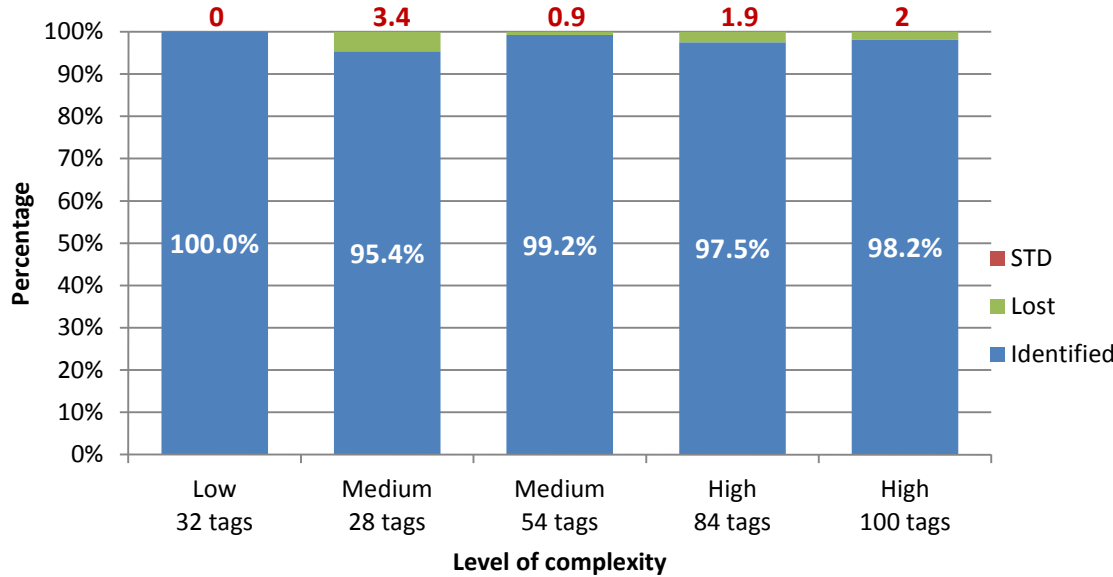


RFID TECHNOLOGY



GATE CROSSING - TEST RESULTS

Different Scenarios Results



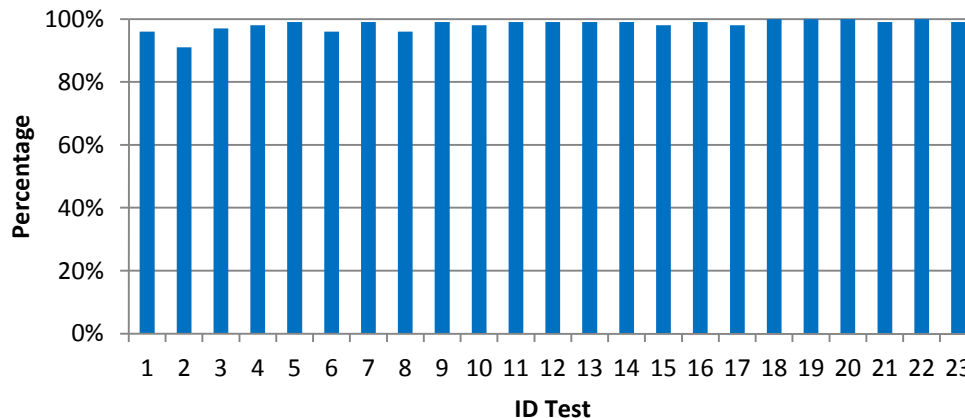
Scenarios

- Increasing levels of complexity

Test variables

- Signal intensity of the tracking system
- Gate crossing speed

High Level of Complexity (100 tags)



Cons

- Undetected tags covered by large metal parts (i.e. turbine disk)
- Overlaid tags interference

Pros

- Reliability independent of tags number
- Not responding tags were easy to identify

MOCK-UPS

Kitting Operator
wants to check the actual
content of one or more
pallets against the as-built
BOM



If the user triggers the reader without specifying the location.

The location is a mandatory
info required to start. The
"Avanti" button is not active if
a selection has not been
made.



KO selects
"Scansione" (Scan)

After the user picks the location, the forward button (Avanti) becomes active



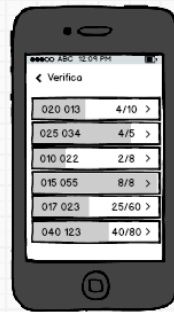
After the location has been
selected, the user can
trigger the reader.



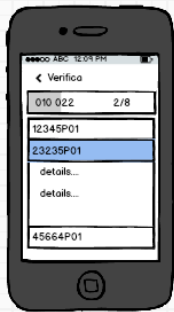
The scan result is a list of
part numbers. Tapping on a
row lists additional details.



In the to-be scenario, the
resulting list of PNs can be the
input for different activities.
Tapping on "Verifica
Pedana" (Check Pallet) requires
to input ESN and subgroup.

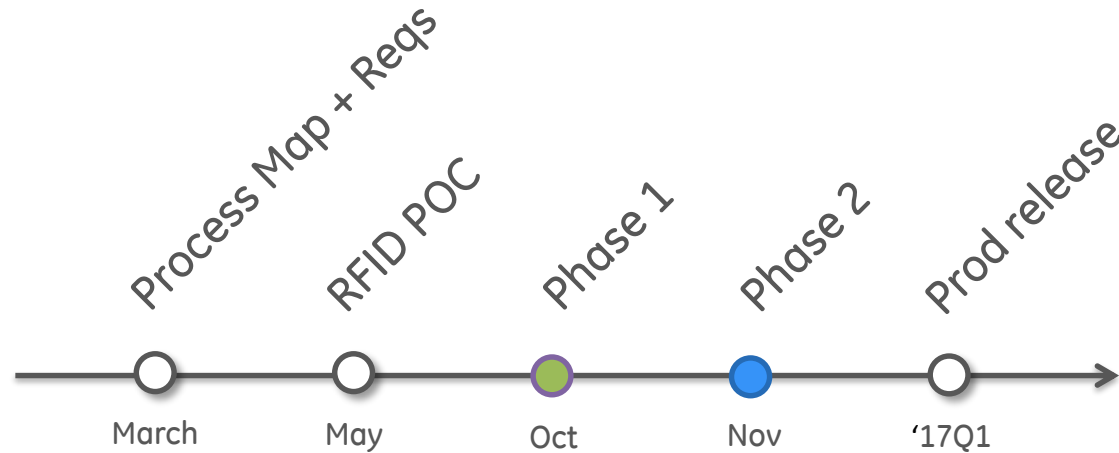


The result is a list of figure
items (not part numbers
anymore).
The colored progress bar
shows the quantity of the
items versus the total amount
needed.



Tapping on each bar opens
up the list of PNs under that
figure item (original PN and
alternative ones).

NEXT STEPS



Phase 1: hand-held device + mobile app / web portal mock-up
(no I/F, no middleware)

Phase 2: middleware installed + RFID printing

QUESTIONS

