

Dynamic Installed Base Analysis

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Portfolio of Services

“I need quick help”



Products to SUPPORT

Diagnosis & Repair

Support Services

“I need work done”



Products to SERVICE

Maintenance

Calibration

Commissioning

Training

“I need improvements”



Products to OPTIMIZE

Maintenance Optimization

Calibration Optimization

Maintenance Optimization



Are you looking for well-designed and lean instrument maintenance processes?

Benefit from:

- reliable, accurate, comprehensive, and clearly visualized instrument information
- plant availability & standardization insights
- enhanced maintenance strategies
- ideal balance between asset criticality and obsolescence management

43%

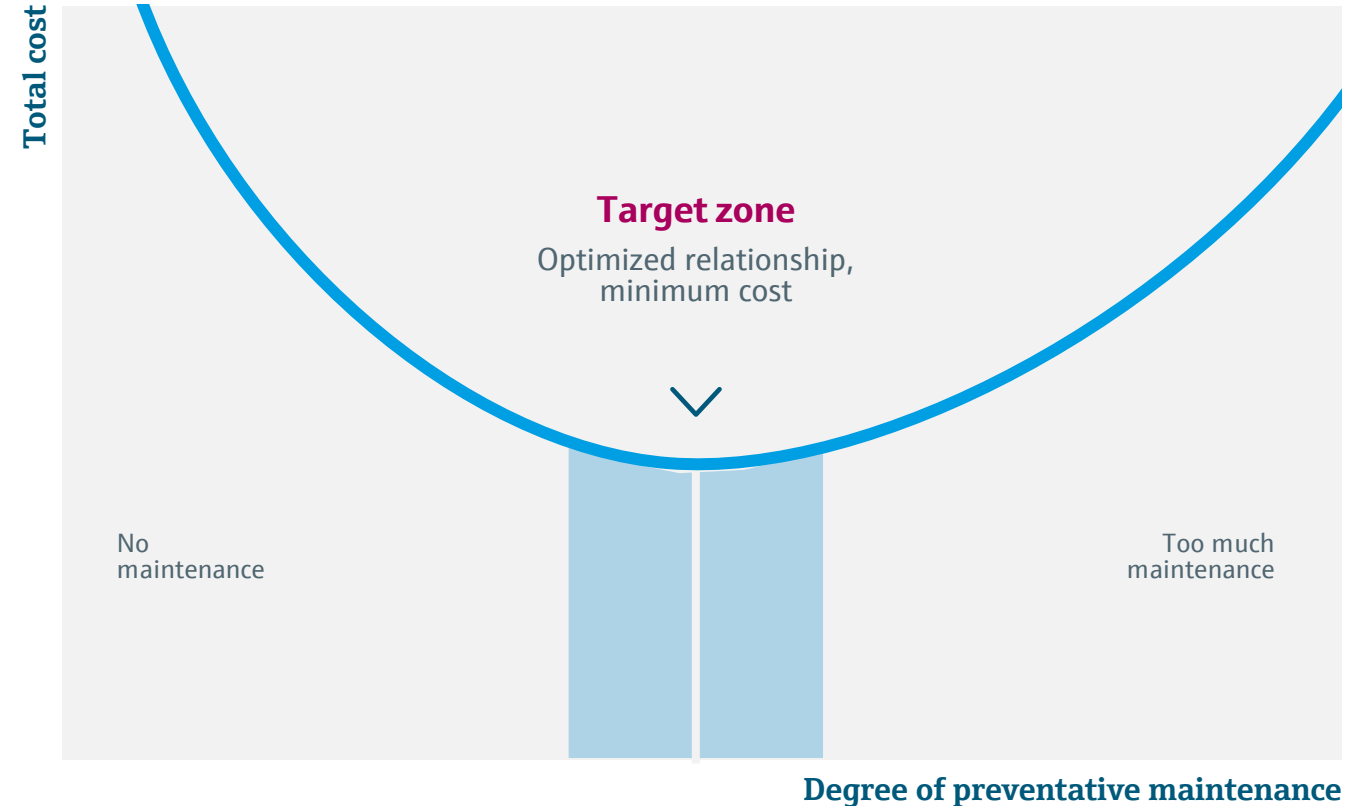
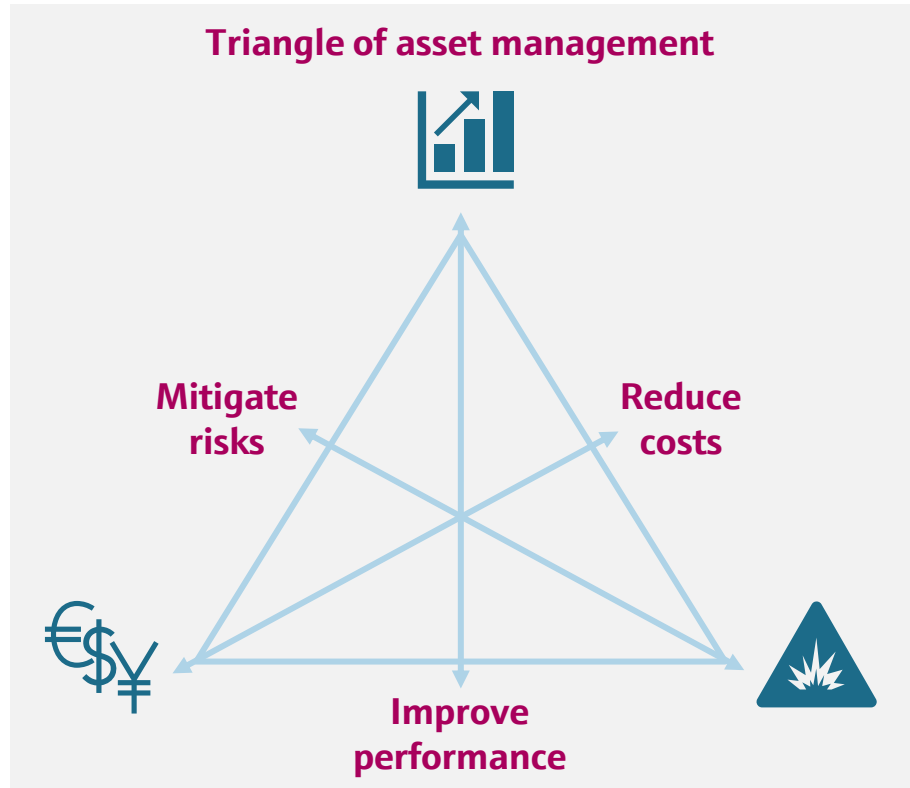
time savings on corrective workorders

When optimizing the maintenance process, typically savings in time and amounts of corrective workorders can be expected.

Organizational goals vs Assets Management

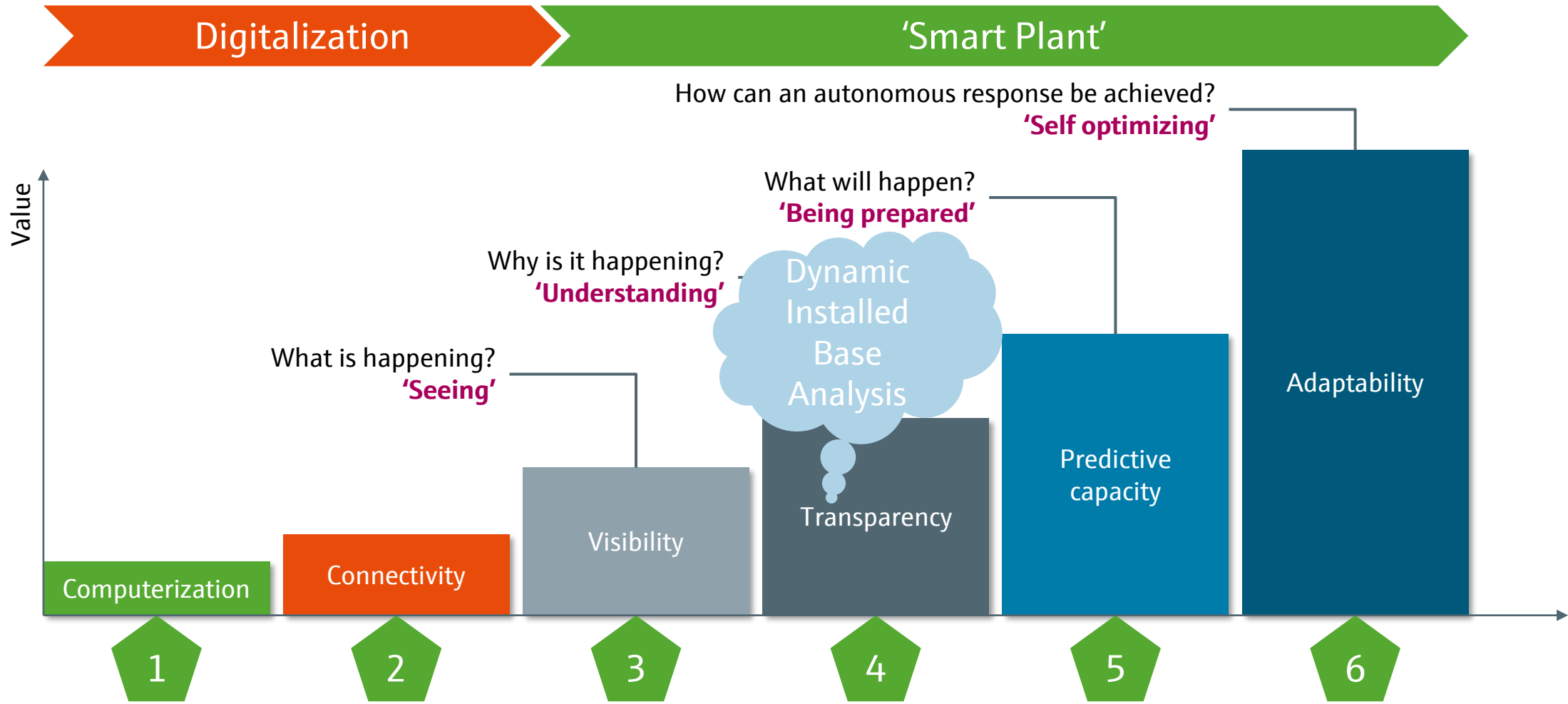


Asset Management Strategy: finding the OPTIMUM



With the Dynamic Installed Base Analysis from Endress+Hauser,
we can help you achieve that OPTIMUM

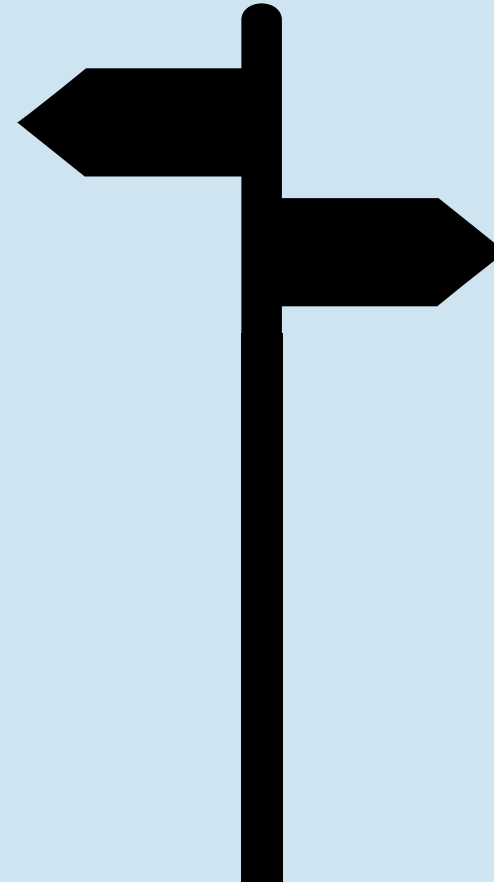
Stages in the 'Smart Plant' development path



Our vision: Asset Information influence on Asset Management Strategy

Vision:

Reliable, efficient
plant operations
through optimized
instrument
maintenance



1

Continuous up-
to-date
ASSET
INFORMATION
will lead to a
better balance in
the triangle of
Asset
Management

Why is it important to manage Asset Information?

WE are losing **up to 70%** of our time in searching information.

What if you could get it right
at anytime and everywhere?

Save time in searching the right information

Reduce downtimes periods and save costs

Improve the maintenance activities

Avoid failures by having access to data

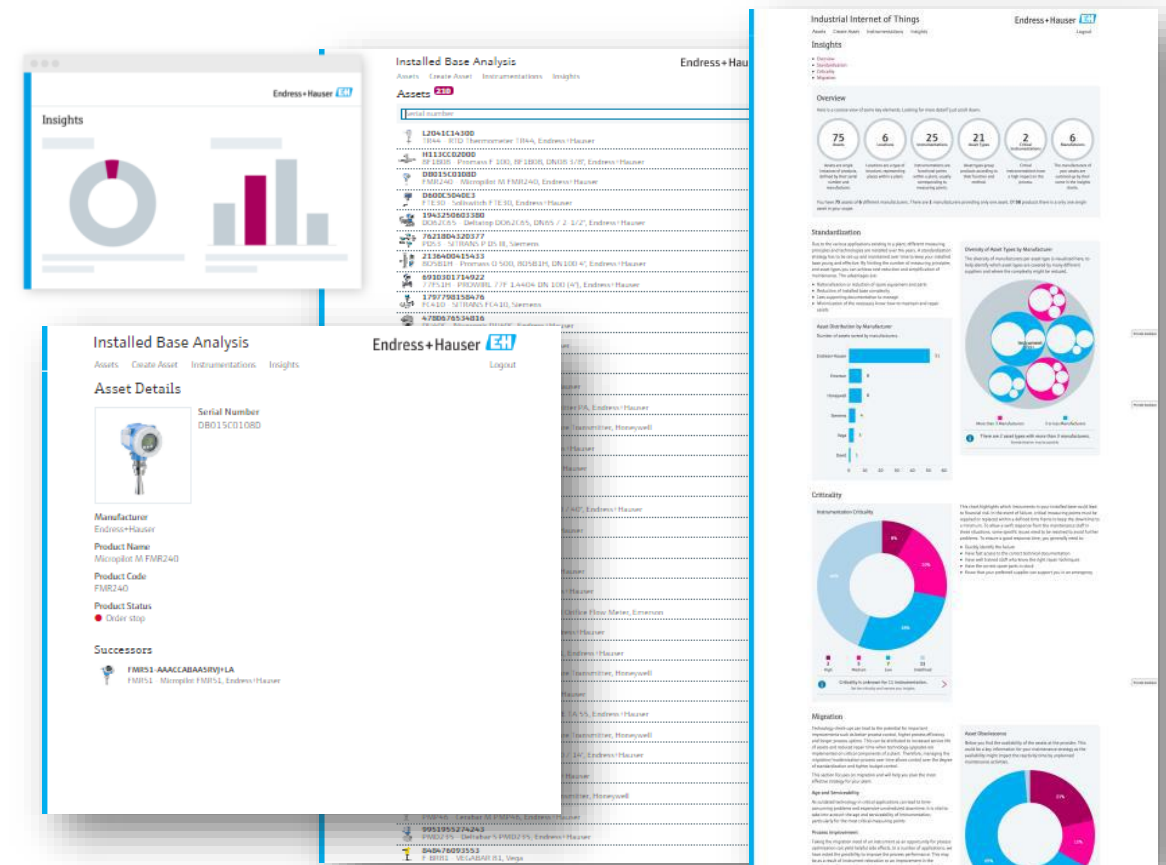
Insure a good overview and traceability of
the instruments fleet

Asset Information Management at Endress+Hauser

From conventional way
(Standard paper archives)



To smart way
(electronically centralized)



Why to go for Installed Base Analyses?

40 M instruments installed worldwide

90% of portfolio is already **digital**

97% of data remain **unused**

From **non-connected customers** to **connected customers**

6 M

Instruments are **older than 10 Years**

Are you aware about these assets?

Are these assets critical for the process?

Are our customers aware about them?

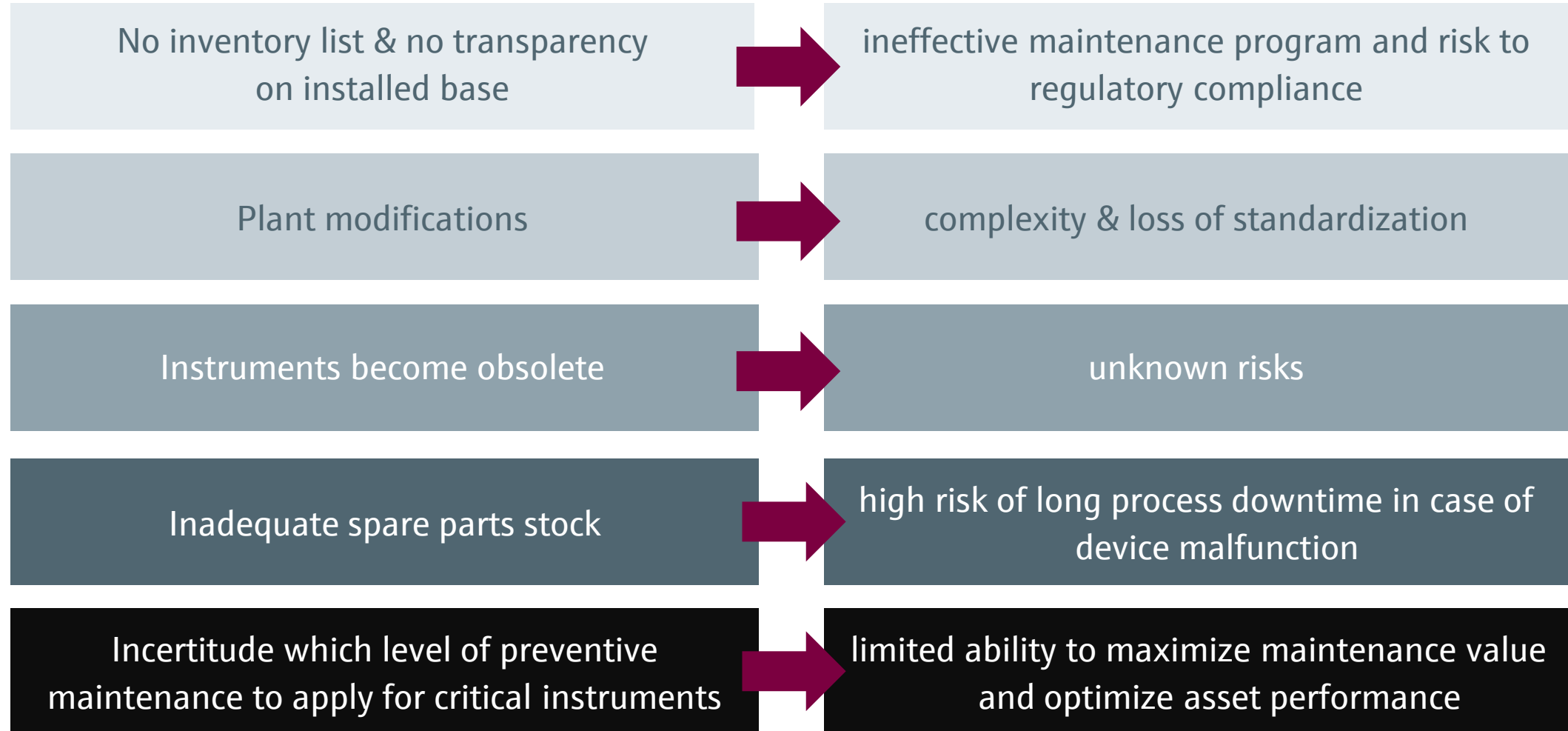
Can we exchange obsolete assets?

Spare Parts?

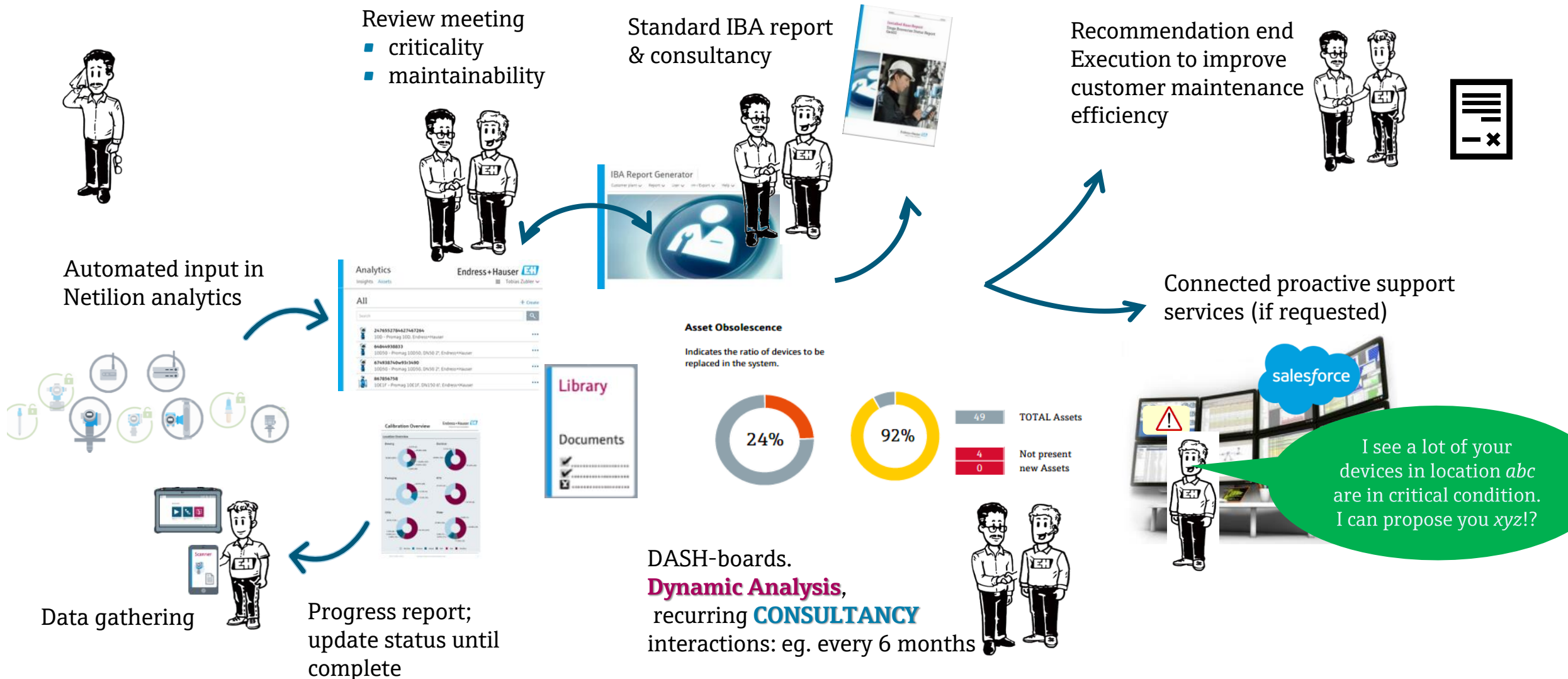
Calibration?

Stock Management?

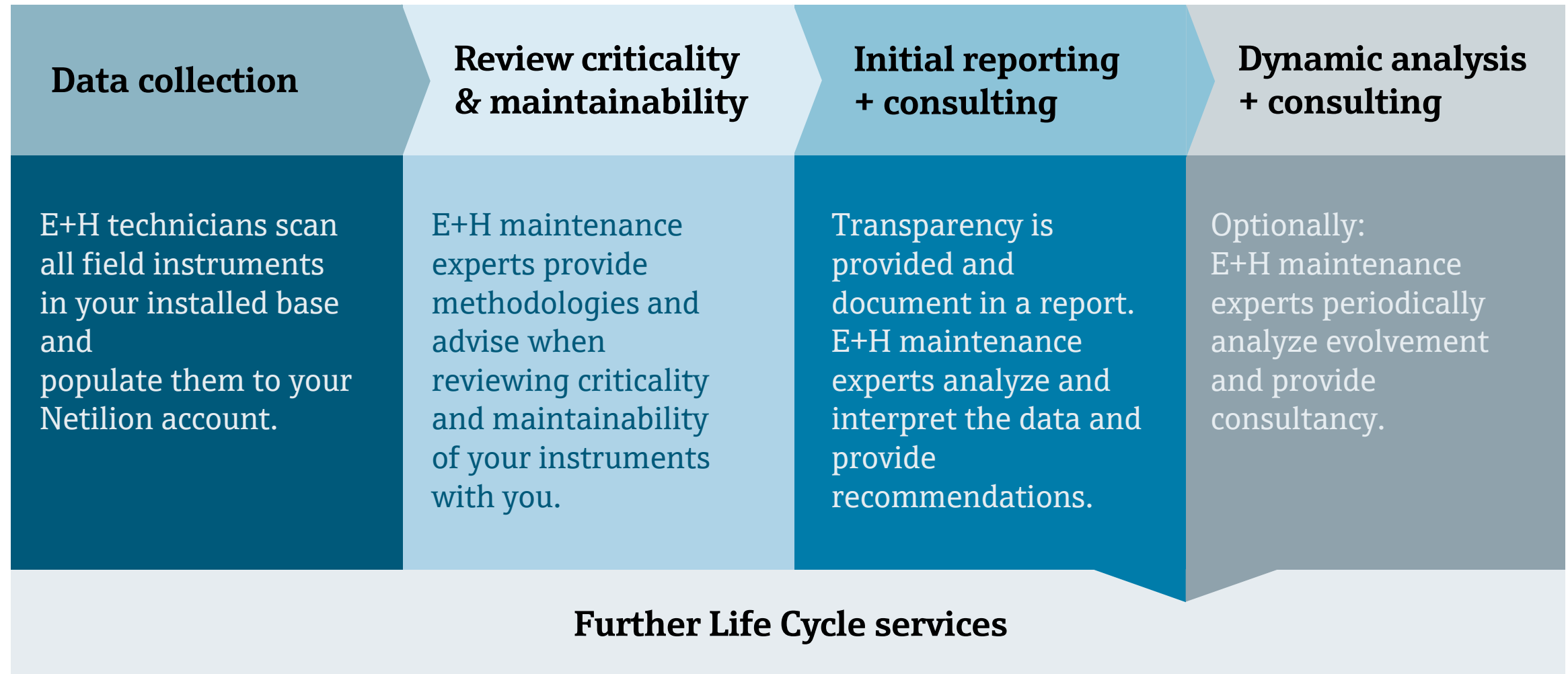
Situation in many process plants



Dynamic IBA: Overview + Consultancy activities (Video)

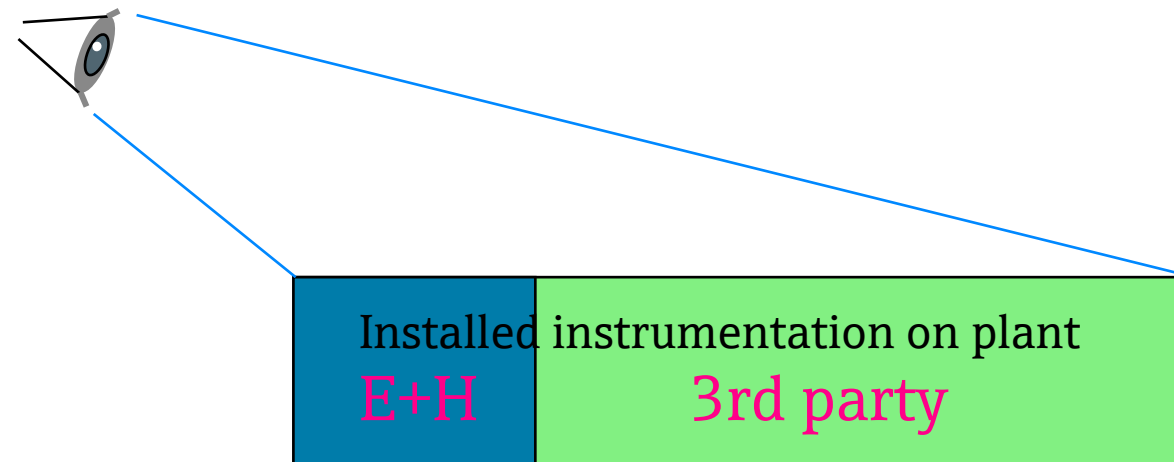


Dynamic Installed Base Analysis Journey



Installed Base Analysis: the foundation to manage customer's installed base

- Installed Base Analysis gives transparency on the complete customer's installed base.
- Installed Base Analysis facilitates the view of third-party instrumentation.



Standardized deliverables

Installed Base Analysis Report

The screenshot displays a multi-page report with the following sections:

- Overview:** Summary of the report's purpose and key findings.
- Standards:** A table or list of standards and their compliance status.
- Process critic:** Analysis of current processes and recommendations for improvement.
- Migration at Migration an:** Details regarding asset migration and integration.
- Preventative maintenance status:** Assessment of maintenance schedules and health.

The report is titled "Installed Base Report Singa Breweries Status Report Gen02" and includes the Endress+Hauser logo.

Service Consultancy



E+H IIoT Analytics + Library + reports

The dashboard provides a comprehensive overview of the industrial internet of things (IIoT) data. Key components include:

- Assets List:** A table of assets with columns for ID, name, location, and status.
- Industrial Internet of Things Insights:** A section with circular gauges showing metrics like 75, 6, 25, and 21.
- Standardization:** A bar chart showing the distribution of asset types.
- Asset Details:** A detailed view of a specific asset (DB015C0108D) including manufacturer, product name, and status.
- Criticality:** A donut chart showing the criticality levels of assets.
- Migration:** Information about asset migration processes.
- Age and Reliability:** Data on asset age and reliability metrics.

Summary statistics from the dashboard:

- Total Assets:** 868
- Average Age of Plant:** 9 years
- Insights for Endress+Hauser deliveries:**
 - Obsolescence: 34%
 - Criticality: 45%
 - Risk: 17%

Improvement recommendations under 5 sections

1. Introduction & Management Summary

2. Standardization

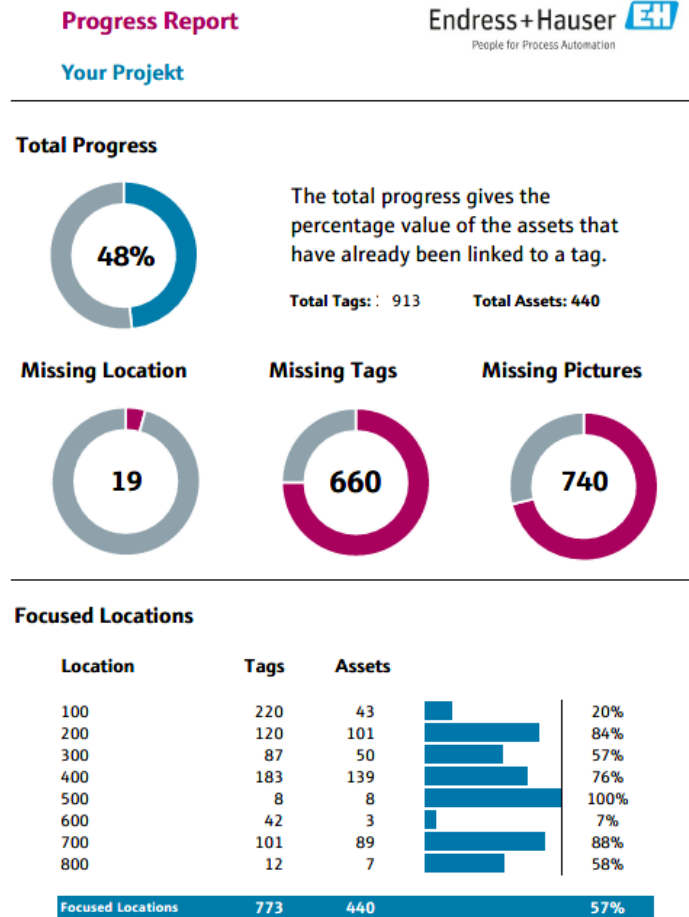
3. Corrective maintenance

4. Obsolescence risks & Migration

5. Preventative maintenance

List of related instruments is available in each section

Use Case – Progress Report during Data collection

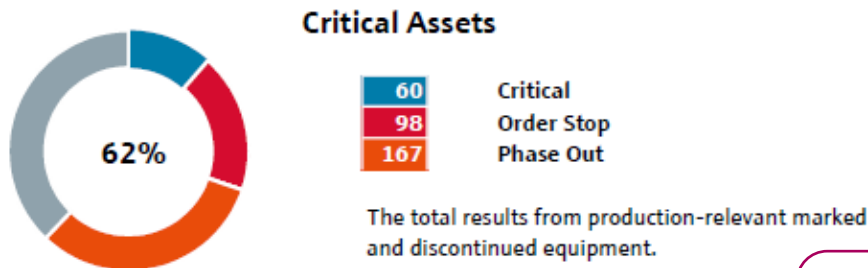
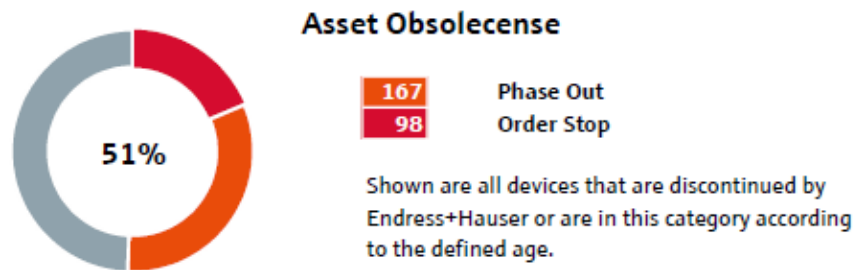


Provide an overview of the data collection progress

Check and adapt service work if necessary

Use Case – Handle obsolete assets

Report inform about obsolete assets.
Enable to budget successor products



Central Engineering Platform | NOVARTIS SINGAPORE

Settings > Import data > Engineer materials > Export technical > Simulate pricing > Export commercial

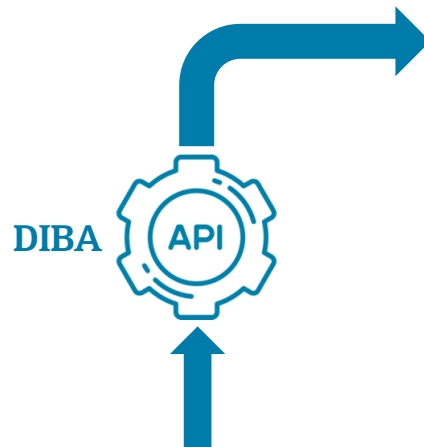
Quote ID	N/A	6,404.74						
Currency	EUR	Purchase			Sales			
Positions/Materials	QTY	Order code	Condition	Material	Total	Condition	Material	Total
Promag P 300, SP1850, DN50 2"	---	---	---	---	1,186.37	---	---	2,820.51
Promag P 100, SP1850, DN50 2"	1	SP1850-2X2/0	●	---	1,186.37	---	2,820.51	2,820.51
Promag P 300, SP381F, DN150 6"	---	---	---	---	1,532.23	---	---	3,584.23
Promag P 300, SP381F, DN150 6"	1	SP381F-6FF0/0	●	---	1,532.23	---	3,584.23	3,584.23

Provide a list of obsolete devices and successors

Provide proposals for budget calculation

Use Case – Keep the installed base dynamic

Create new assets automatically and track the asset location



New purchase order

Analytics






Insights Assets

Endress+Hauser 

☰ Tobias Zubler ▾

All > Sanofi

🗑 Delete ✎ Edit + Create

-  **01 Goods Receipt**
Location, delivered Endress+Hauser devices are created automatically - 3rd Party will be created with Scanner App
-  **02 Stock**
Location, Available devices on Stock
-  **03 Production**
Location
-  **04 Scrapped**
Location, find scrapped devices
-  **05 Reports**
Location, Obsolete management Reports



Know where the assets are currently located



Keep the installed base up to date

Use Case – Monitor the stock

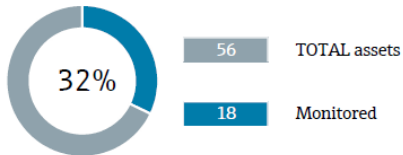
Stock Management

Endress+Hauser 
People for Process Automation

October 2019

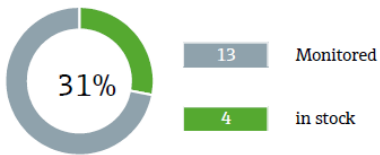
Stock management overview

Shows the ratio of monitored assets at which availability in the warehouse is to be ensured.



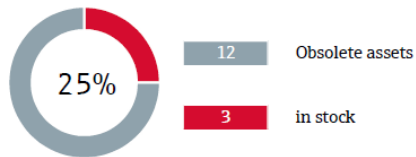
Monitored assets in stock

Displays the availability of the assets to be monitored in the warehouse.



Obsolete Assets in Stock

Displays the availability of obsolete assets in the warehouse.



Monitor availability of critical assets on stock



ratio of total monitored devices



availability of critical assets in Stock



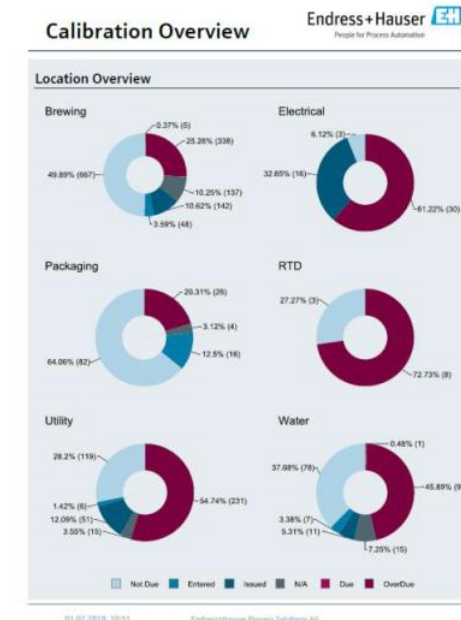
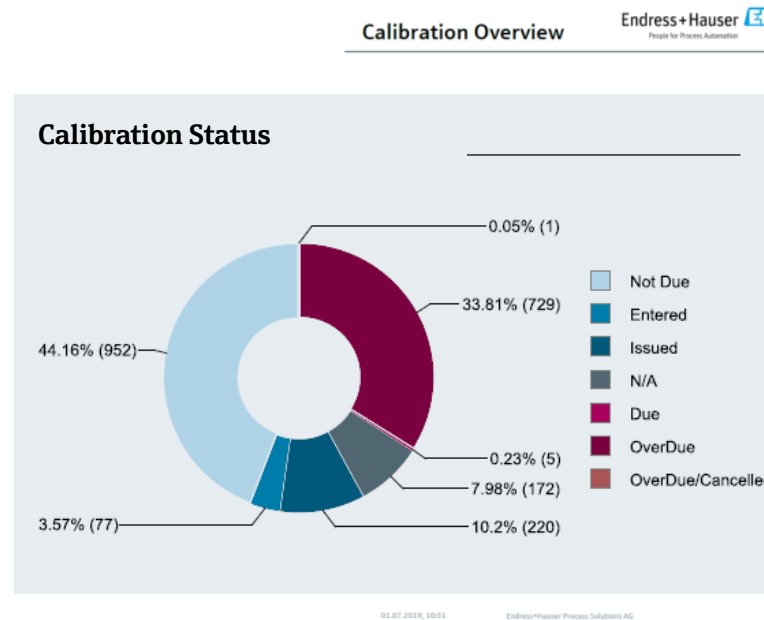
availability of obsolete assets in Stock



know how many devices of one kind are on stock

Use Case – Create a calibration status report

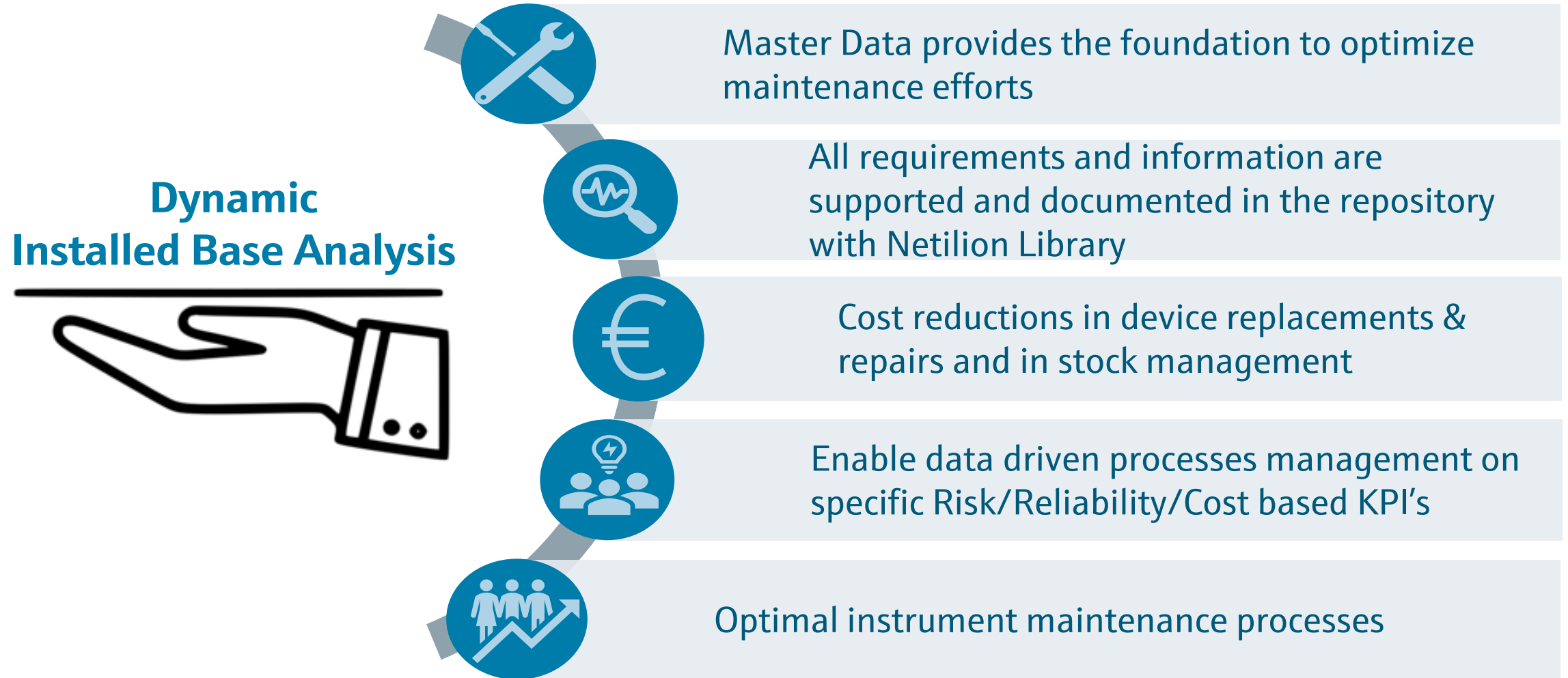
Track installed base in Netilion and monitor calibration status on regular base



provide calibration status reports

attach calibration report to the related asset

On one glance



Dynamic Installed Base Analysis value.



- Yield
- Plant availability → reduced planned downtimes
- Reduce time to market / quick plant start up



- Safety issues
- Product quality
- Out Of Tolerances



- Cost of operation (material, labor, energy)
- Financial cost → Capital cost savings due to stock reductions
- Obsolescence and life cycle management

Let's go this Digitalization journey together - Q&A?

