



BASF Reliability Center

Presented by: Maximilian Goss, Juergen Schmidt



We create chemistry

Segment Structure of BASF



Chemicals

Petrochemicals

Monomers

Intermediates



Performance Products

Dispersions & Pigments

Care Chemicals

Nutrition & Health

Performance Chemicals



Functional Materials & Solutions

Catalysts

Construction Chemicals

Coatings

Performance Materials



Agricultural Solutions

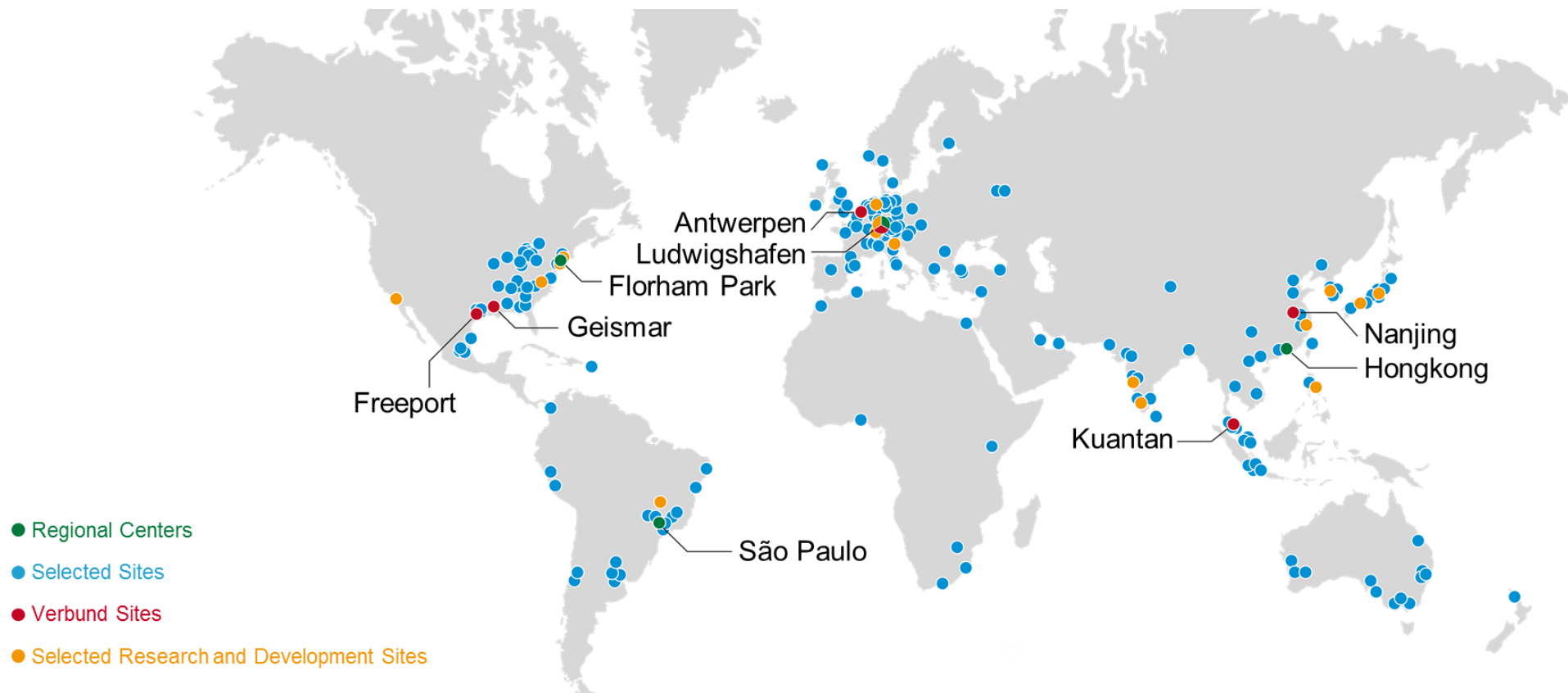
Crop Protection



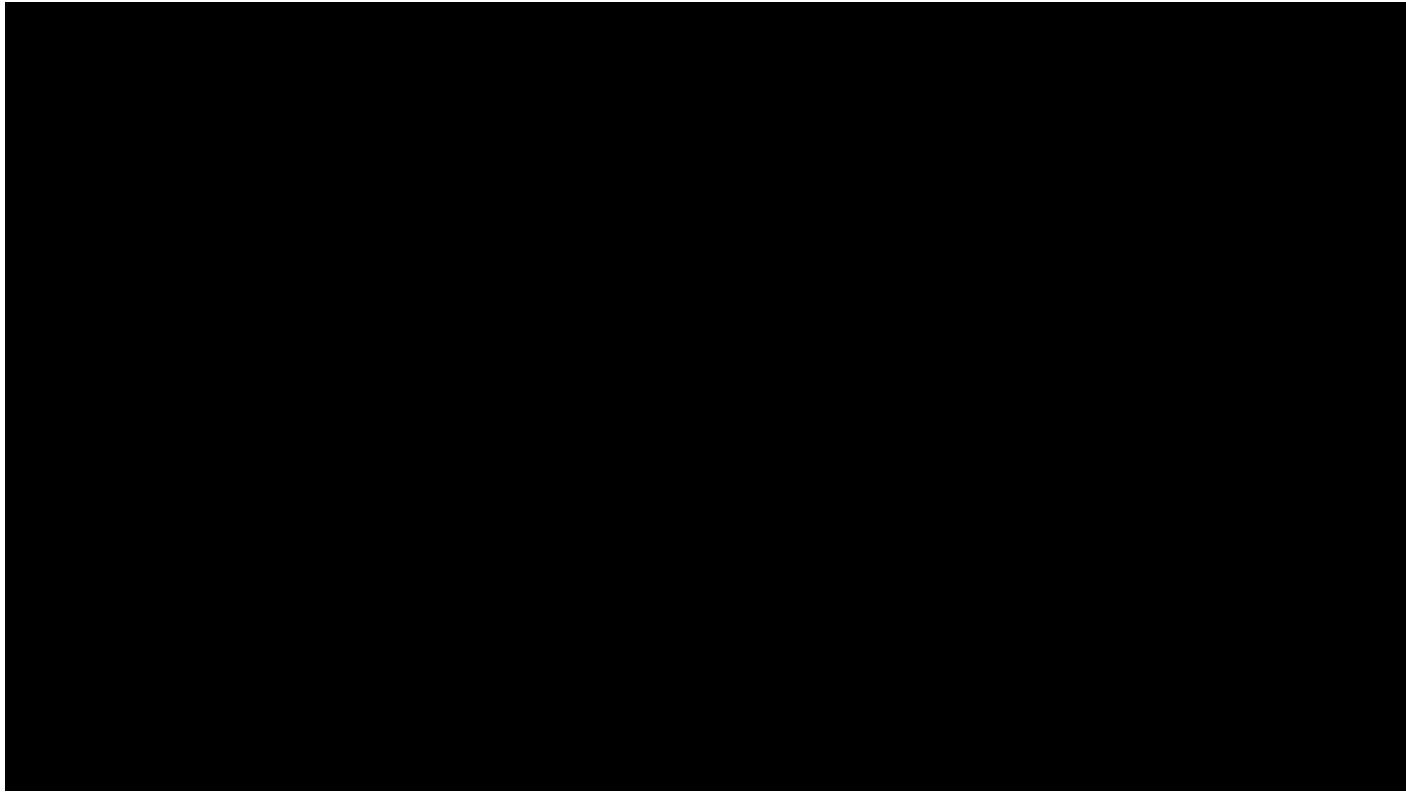
Oil & Gas

Oil & Gas

BASF Worldwide



The Reliability Center



Objectives & Mission of the BASF Reliability Center



Early recognition
&
prediction of
failures



Reduction of
unplanned
shutdowns &
minimization of
time to repair



Recognition of
bad operating
conditions &
assistance for
improvement



Optimization of
equipment
lifetime &
maintenance
strategy



Improved
detection quality
compared to
classical
vibration analysis



Expert
availability,
knowledge
transfer and
conservation



Services



Consultancy and
Scope finding



Setup of a global
Monitoring Community



Implementation



Further Development of
Diagnostic Monitoring



Monitoring and
Support

Monitoring Scope of BASF's Reliability Center

- Combined cycle plant machinery
 - Gas turbines
 - Steam turbines
- Large scale compressors for a variety of gases
 - Steam and motor driven multi-stage turbo compressors
 - Piston compressors (different gases in same compressor)
- Pumps for a variety of fluids, pressure levels and volume flows
- Blowers
- Refrigeration units
- Other rotating equipment such as centrifuges, stirrers, etc..

Facts and Figures



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Monitoring Centers



17

Plants connected



5

Different Condition Monitoring Systems



65%

Process Machinery



>10

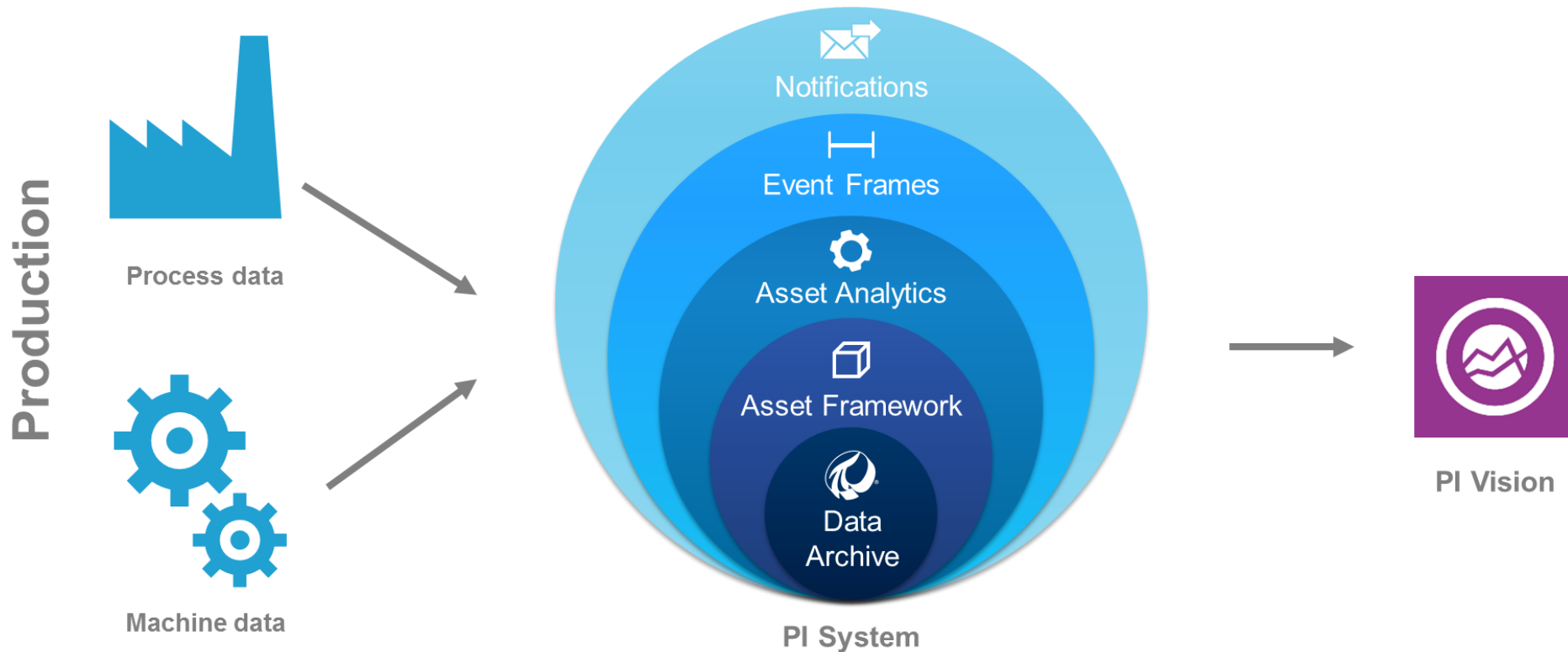
Different types of equipments



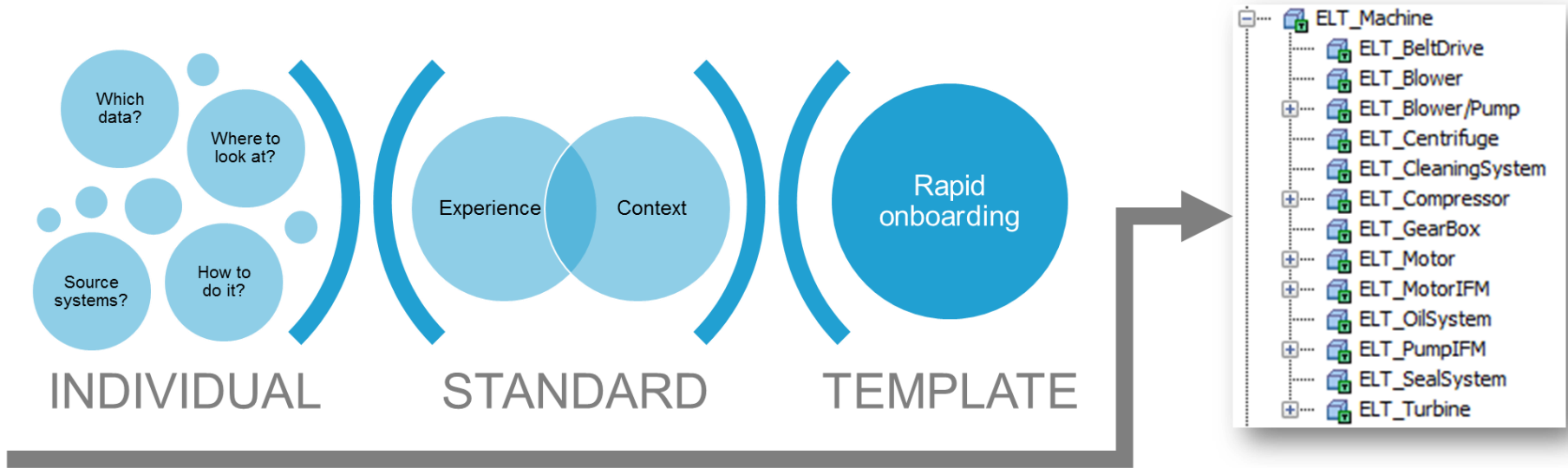
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Data sets

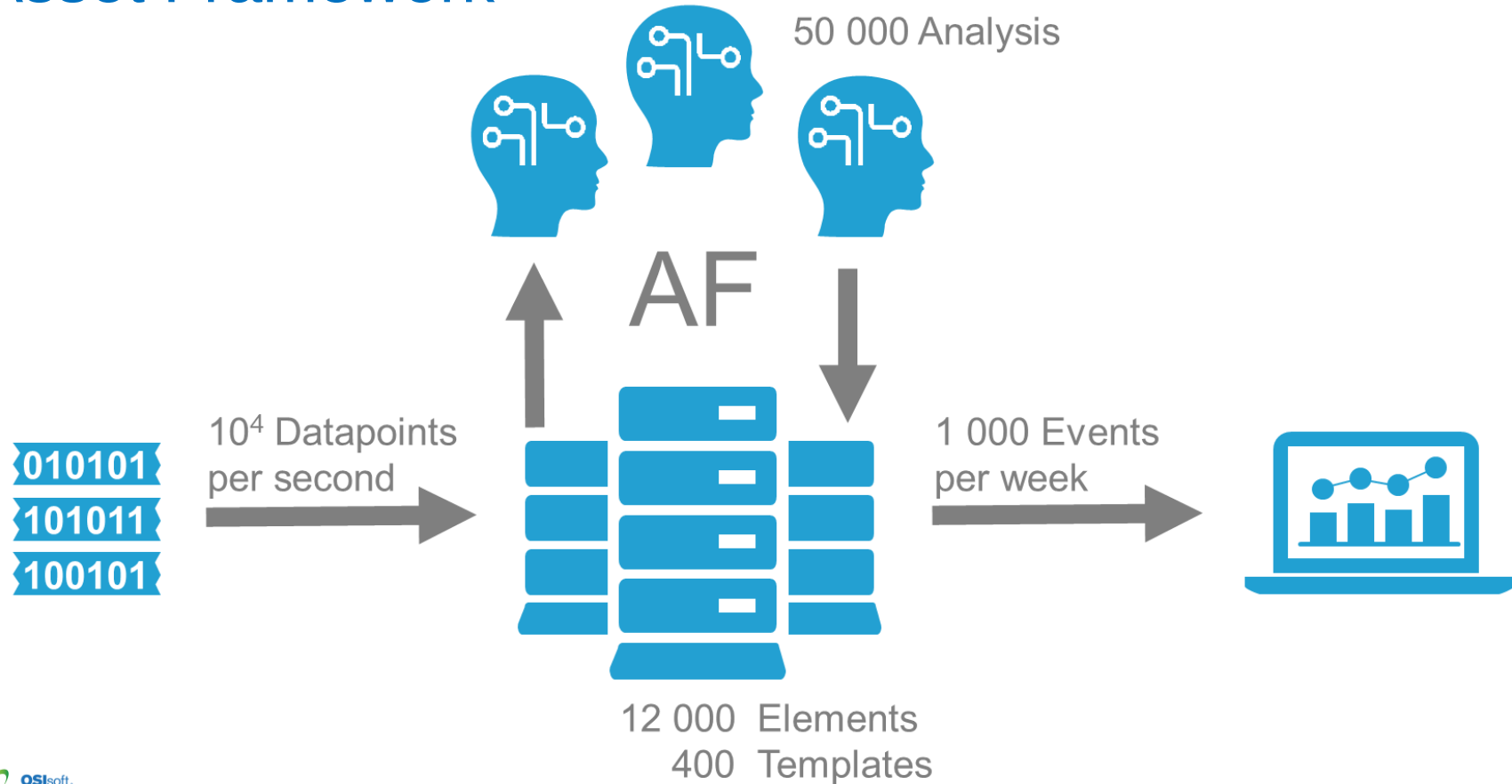
Architecture



Templates accelerate



Asset Framework



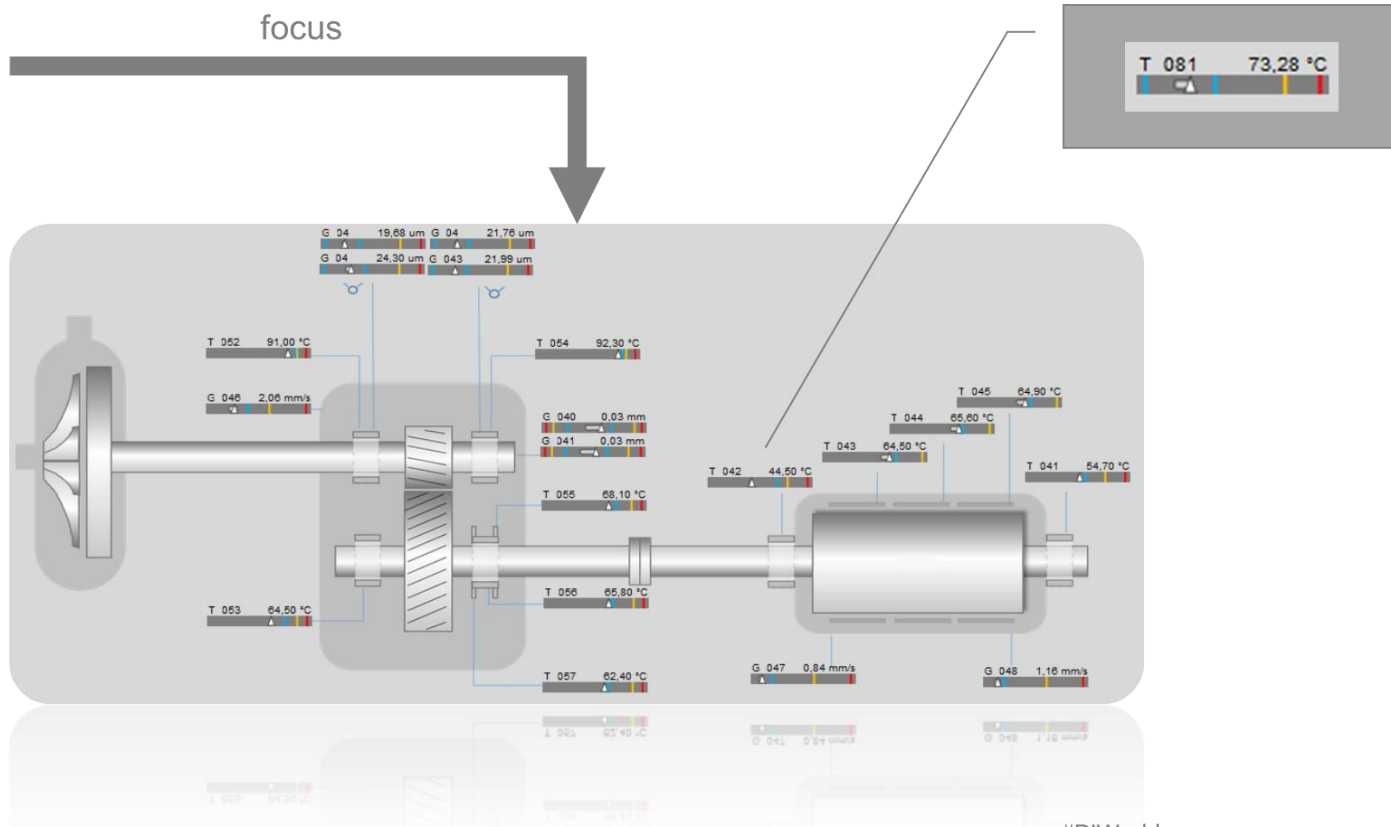
Custom Symbols and Toolpane

OSIsoft
PI Vision

RELIABILITY CENTER

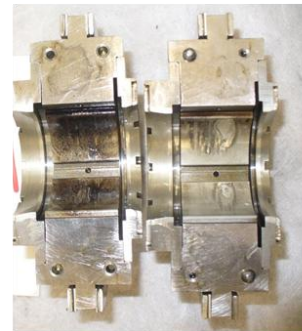
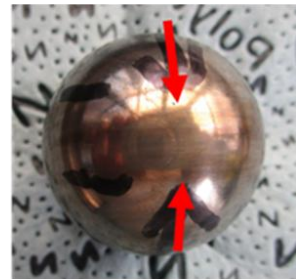
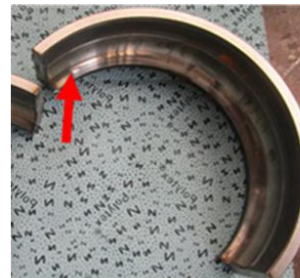
Belgium	1	-	-
Brazil	-	-	-
China	1	-	-
Germany	5	-	-
Italy	-	-	-
Malaysia	-	-	-
Spain	-	1	1
United States	2	-	-

Events



Findings

- Early detection of bearing damages at pumps and compressors
- Imbalances due to incorrect alignment of pumps and motors
- Sensor degradation and sensor failures
- Bad operation modes of rotating equipment
- Early recognition of fouling and deposits
- Seal system failures
- Sticking valves



Speaker



- Maximilian Goss
- Automation Engineer
- BASF SE, Reliability Center
- maximilian.goss@basf.com



- Jürgen Schmidt
- Automation Engineer
- BASF SE, Center of Expertise
- juergen.b.schmidt@basf.com

Questions?

Please wait for
the **microphone**

State your
name & company



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BAЯPЛAЛAА MISAOTRA ANAO
DZIĘKUJĘ CI NGIYABONGA TEŞEKKÜR EDERIM GRACIES
OBRIGADO شكرا SALAMAT
DANKON TANK TAPADH LEAT
DANKIE TERIMA KASIH
KÖSZÖNÖM
СПАСИБО
PAKMET CIZGE
GO RAIBH MAITH AGAT
БЛАГОДАРЯ GRACIAS
ТИ БЛАГОДАРАМ
MAHADSANID
TAK DANKE
RAHMAT
HATUR NUHUN
CẢM ƠN BẠN
WAZVIITA
DANK JE
AČIŮ SALAMAT MAHALO IĀ 'OE TAKK SKALDU HA
GRAZZI PAKKA PĒR
PAXMAT CAĞA
FALEMINDERIT
EΥΧΑΡΙΣΤΩ GRATIAS TIBI
DI OU MÈSI
ĐAKUJEM
MATUR NUWUN
UA TSAUG RAU KOJ
ТИ БЛАГОДАРАМ
СИПОС
MULTUMESC
FAAFETAİ
ESKERRIK ASKO
HVALA ХВАЛА ВАМ
TEŞEKKÜR EDERIM
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