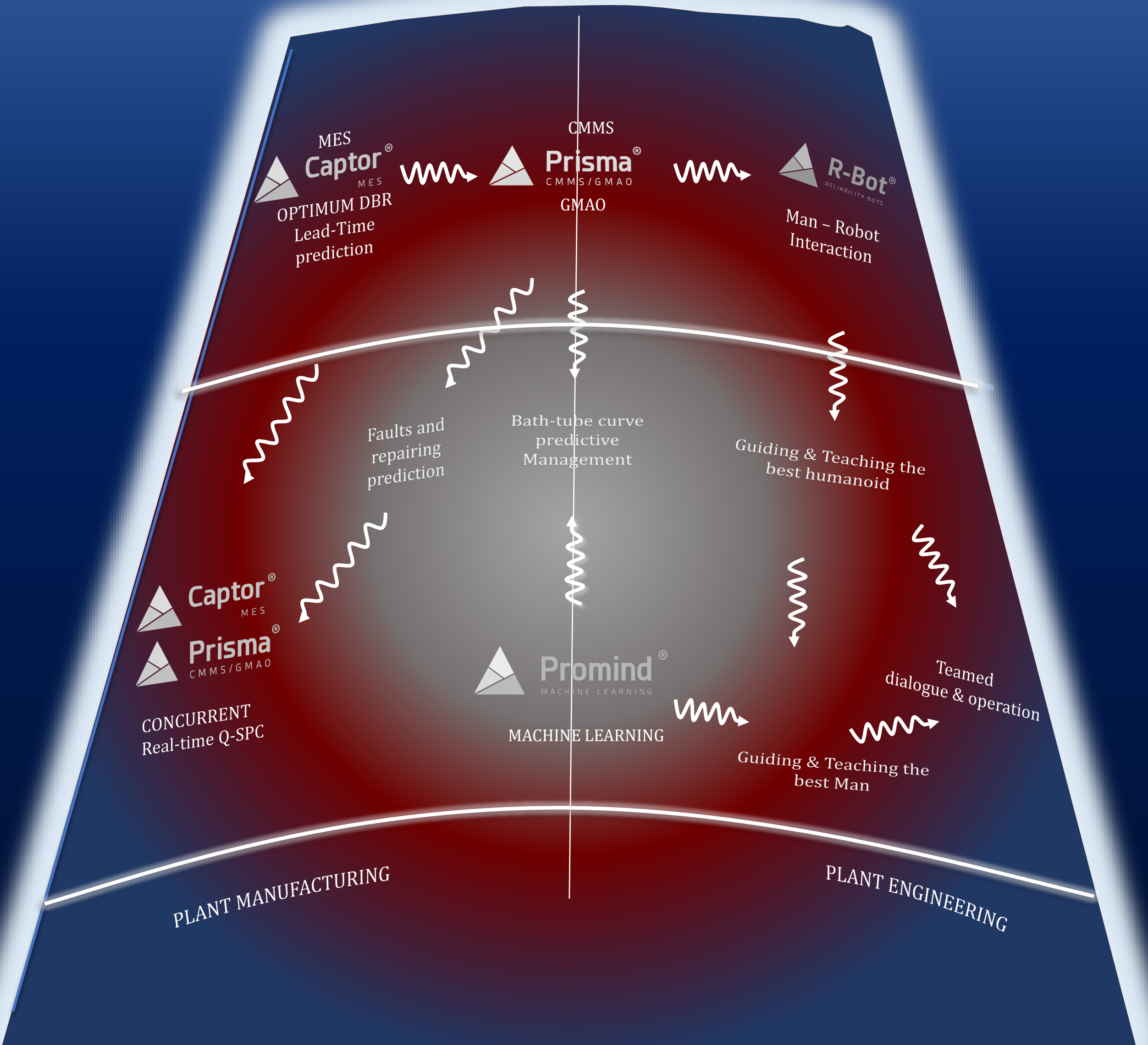


Plant Real Time Operation



SISTEPLANT Engineering: IN THE MIDDLE OF THE Cyber- FoF

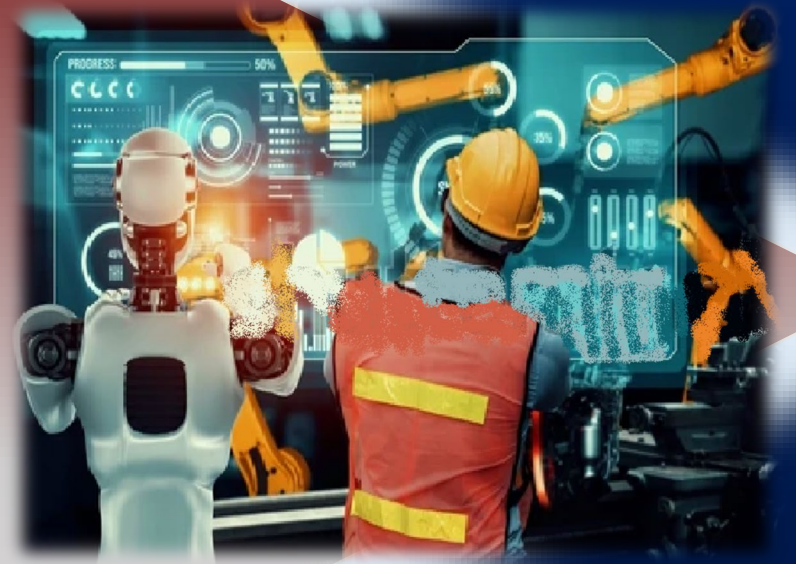
Flexible Intelligent Automation

Reconfigurable process Optimization

Integral life-bath-tube-Reliability

Humanoid Robots Interaction

Building the Cyber-Man



Profun[®]
ROBOT-HUMAN INTEGRATOR

Humanoid Robots Interaction



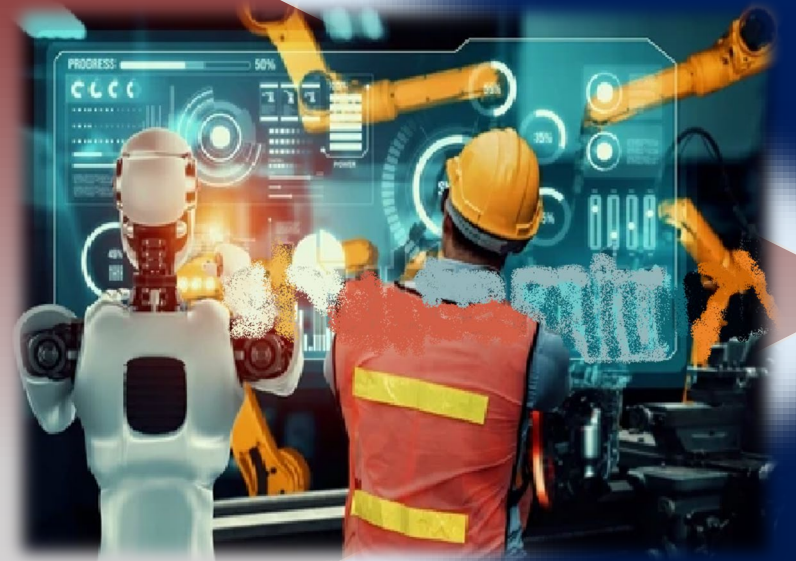
Sisteplant
Dream Innovate Challenge

Why Prisma[®] is the best CMMS (GMAO) for the Cyber-FoF?

Integrating life Bath-Tube Reliability
Maintenance Strategy



Real-time fault prediction and A.I. Machine
Learning based root cause Analysis



Virtual reality and Symbolic Regression
Scientific operation & training



WHY Captor® IS THE UNIQUE M.E.S. FOR THE CYBER-FoF's?

CYBER-FoF:

Real time
Adaptative
Predictive
Optimization

RTAPO

DEEP IMPROVED
BY DEEP TEACHING



 Captor®
MES

RTAPO

- In:
- DBR-CPM Scheduling Flow
 - SPC – Quality
 - Machinery Reliability & Maintenance
 - $OEE \text{ and } OEE_t = 1 - \frac{MTTR}{MTBF}$

Supporting:
Sisteplant's
software

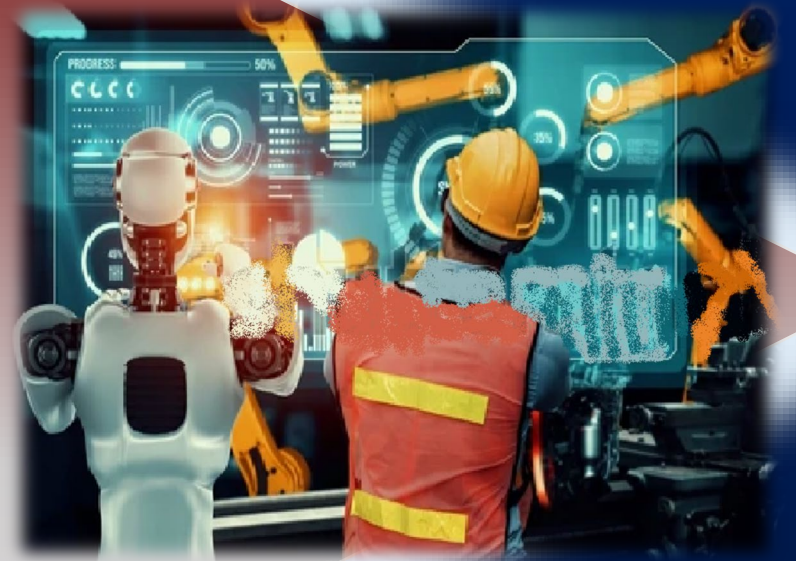
- In:
- DBR-CPM Scheduling Flow
 - SPC – Quality
 - Machinery Reliability & Maintenance
 - $OEE \text{ and } OEE_t = 1 - \frac{MTTR}{MTBF}$

(CMMS)



Promind®
MACHINE LEARNING

(Machine Learning)



Captor® &
Supporting:
Software deep
teaching

- Aggregated-Summary filtered info with
- Root-cause provided analysis and
- Plant's real-time filtered-relevant impacts virtual MIMICS



Sisteplant
Dream Innovate Challenge

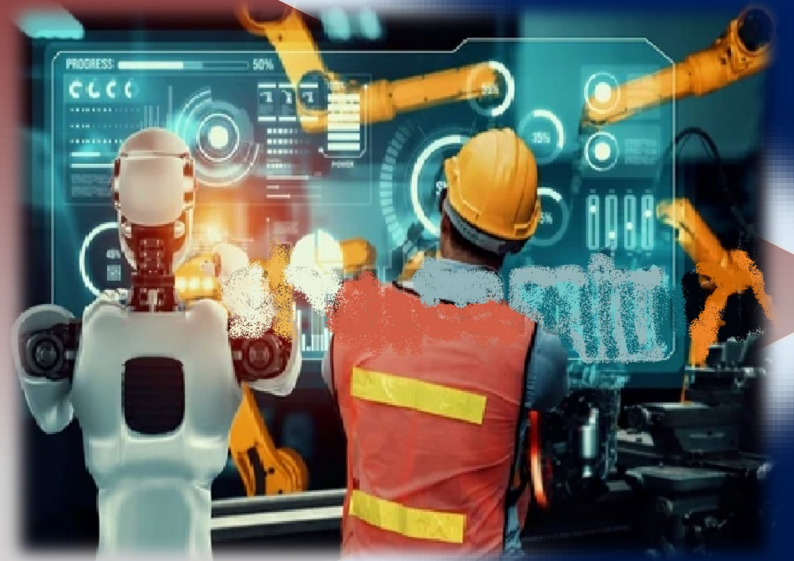
Why Promind® is the best Machine Learning software for the Cybers?

Self-explanatory Symbolic Regression

Equipment Reliability focused leading edge algorithms

Real time interaction with MES and CMMS (GMAO)

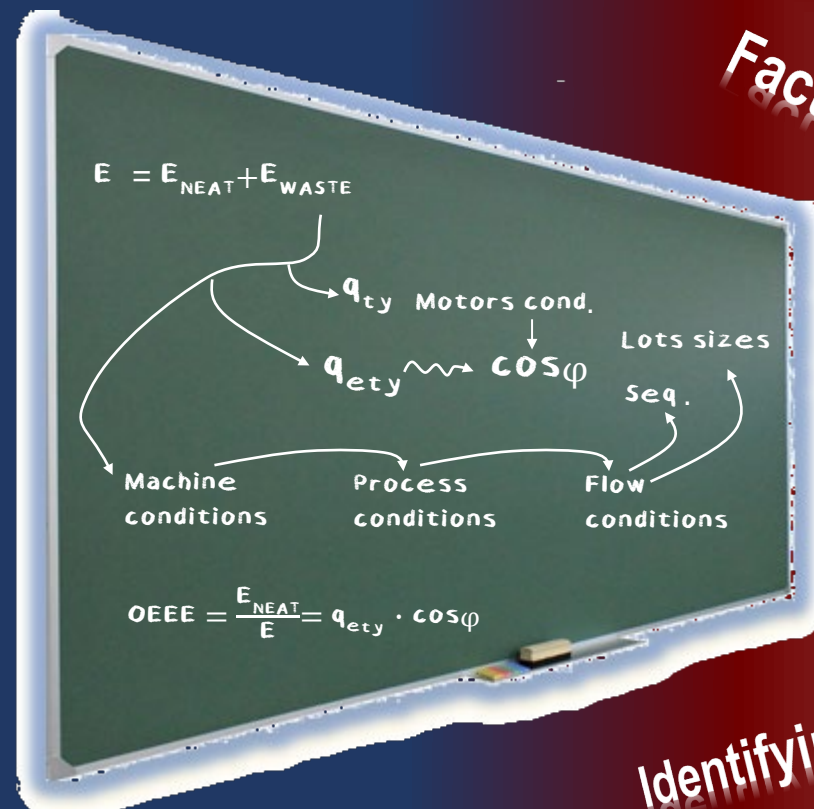
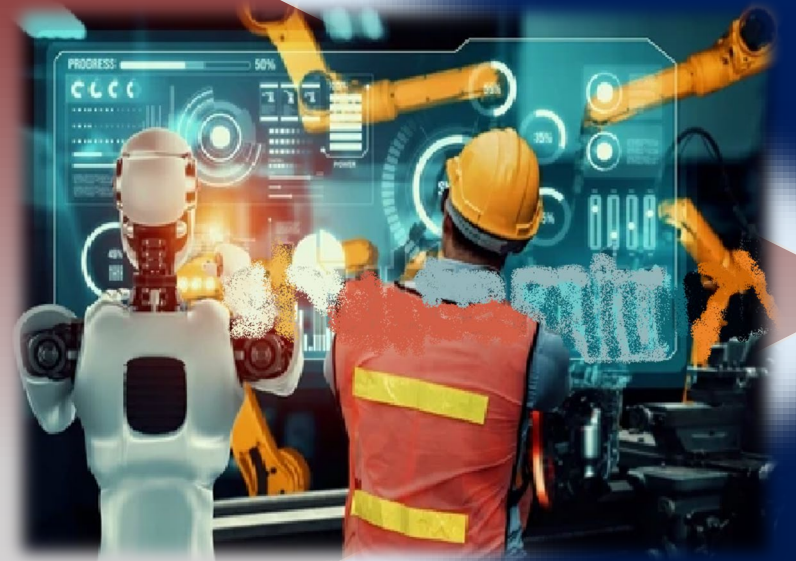
Energy optimization module



Energy Optimization from its roots



Machine Learning
detecting energy waste pools
Factoring root causes



Identifying best situations,
fixing standards and

MES  Captor[®] integrated alarms
 CMMS  Prisma[®]
 CMMS/ERP

Leading human – robots interaction

Leveraging Cyber – Man Capabilities



Scientific mutual teaching and Knowledge building



Coworking robotized Maintenance



Knowing “Why he knows that he knows”