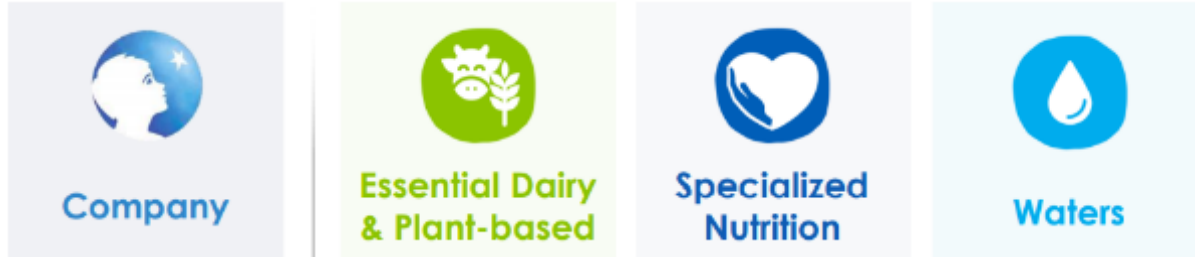


OPENING NOTES ON DIGITALISATION AND OPPURTUNITIES TO INNOVATE FOR ENERGY TRANSITION

ADAM PAWELAS
GLOBAL UTILITIES MANAGER
DANONE WATERS, FRANCE
10 MARCH 2021

DANONE at a Glimpse



Size

- Sales €23.6bn (2020)
- Employees 100.000+
- 100+ factories in 30+ countries

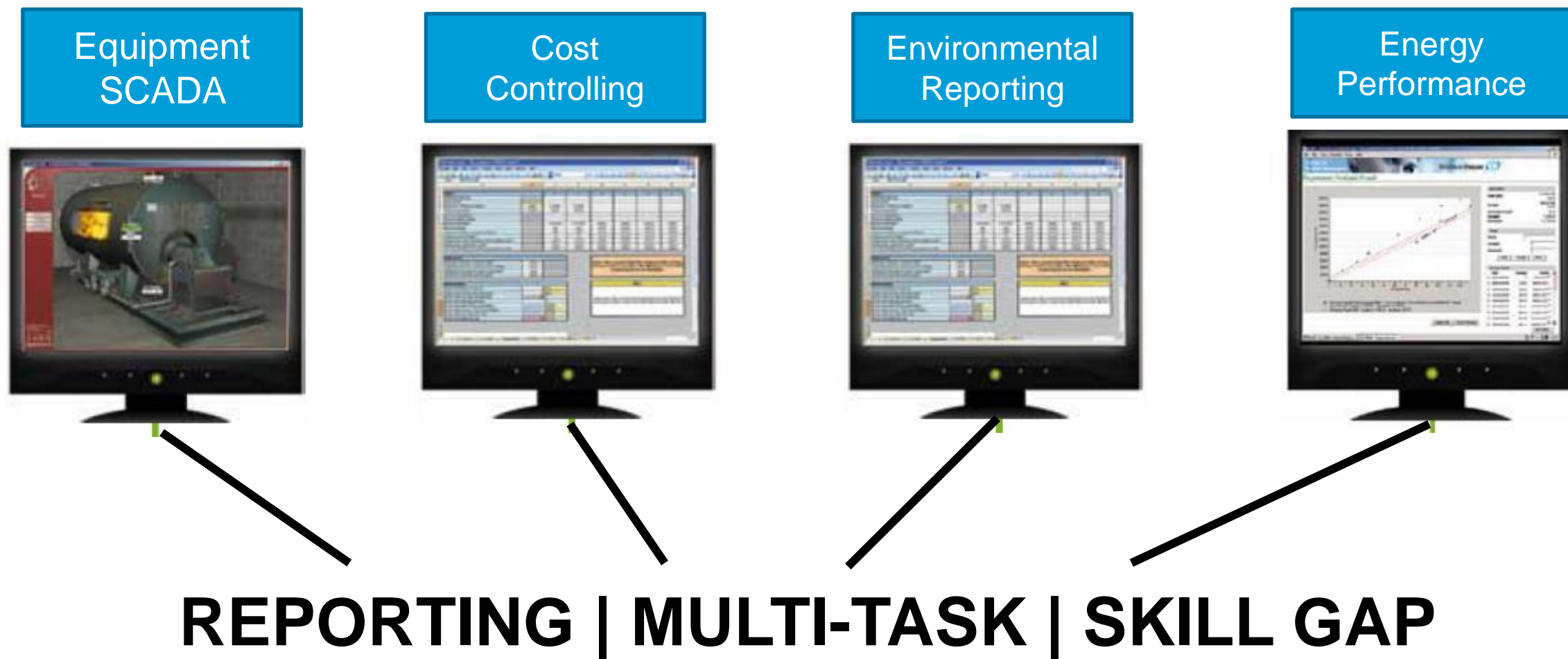
Environmental Sustainability Ambitions

- Purpose-driven company in France, with societal and environmental objectives along with financial
- 100% renewable electricity in production by 2030
- Carbon-neutral factories in all Europe by 2025
- Circular economy on plastics, rPET, and much more ...

Digitalisation in Energy Utilities

- Industrial visualisation and control systems
- Energy monitoring and optimisation software
- Factory-wide digitalisation and performance monitoring

Digital Performance Management in Energy: A Typical Landscape of Solutions in a Big Organisation



Digital Performance Management in Energy: A Typical Landscape of Solutions

Equipment SCADA



What it does?

- Equipment and process visualisation
- Control and equipment sequencing logic
- Alarms on process/ machine condition or failure mode
- Equipment performance check

Cost Controlling



Environmental Reporting



Energy Performance



Digital Performance Management in Energy: A Typical Landscape of Solutions

Equipment SCADA / BMS



Cost Controlling



Environmental Reporting



Energy Performance

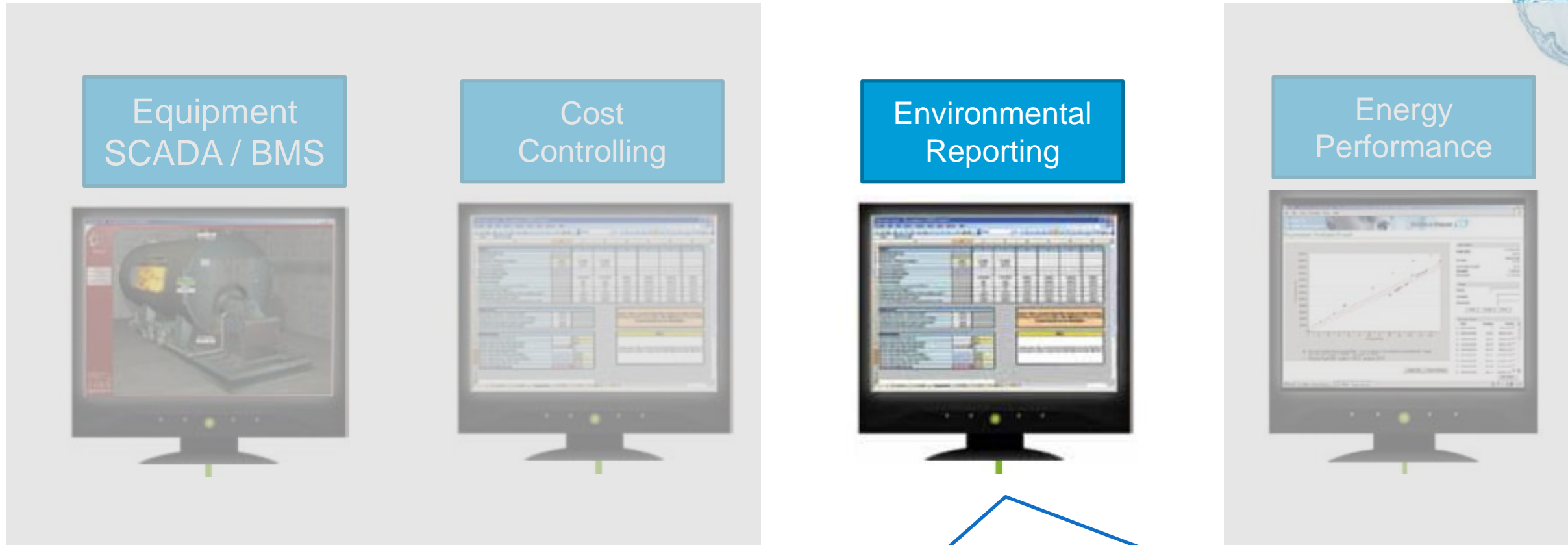


What it does?

- Production data
- Cost data per accounting category
- Standard Performance Indicators incl. Energy



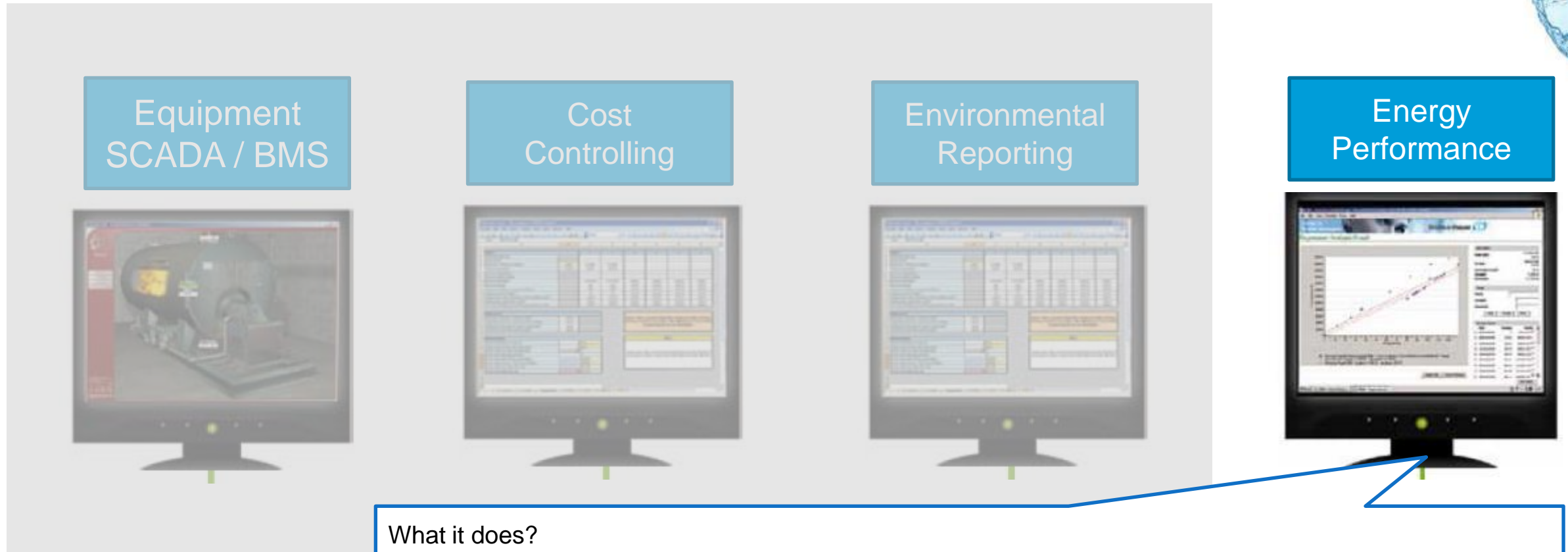
Digital Performance Management in Energy: A Typical Landscape of Solutions



What it does?

- Environmental monitoring data
- Compliance and environmental indicators
- Energy data from environmental perspective

Digital Performance Management in Energy: A Typical Landscape of Solutions



What it does?

- Combines SCADA and production data. Can include environmental and cost data
- Monitoring of energy performance at different levels. Not only energy...
- Setting performance targets. Can budget energy consumptions
- Alerts on deviation from target
- Tracks impacts of projects
- Analysing data patterns and abnormalities, response from control tower (expertise)



Lessons Learned and Advice on Digitalisation in Energy Transition

Project brief

- Be sure what is the scope and users
- Be clear about objectives: savings, cost avoidance, external expertise?
- Make rough assumptions on likely total cost of the solution
- Be clear what service you want from software provider (data analysis, reporting, expertise)

Project planning

- Ensure enough time for metering and digitalisation, data configuration for users

Go-live and use

- Ensure involvement of site team and external expertise if needed
- Integrate solution into on-site performance management routines

Next-level digitalisation (trends)

- Software with more expertise support (skill gap or time gain)
- Solution migration for wider inter-connected digitalisation of factory (next-level digitalisation)
- More automated functions with machine learning (emerging)



Questions please?

Thank You !

