



Smart Factory with processControl - AI powered

September 2019, EMO, Oliver Habisch

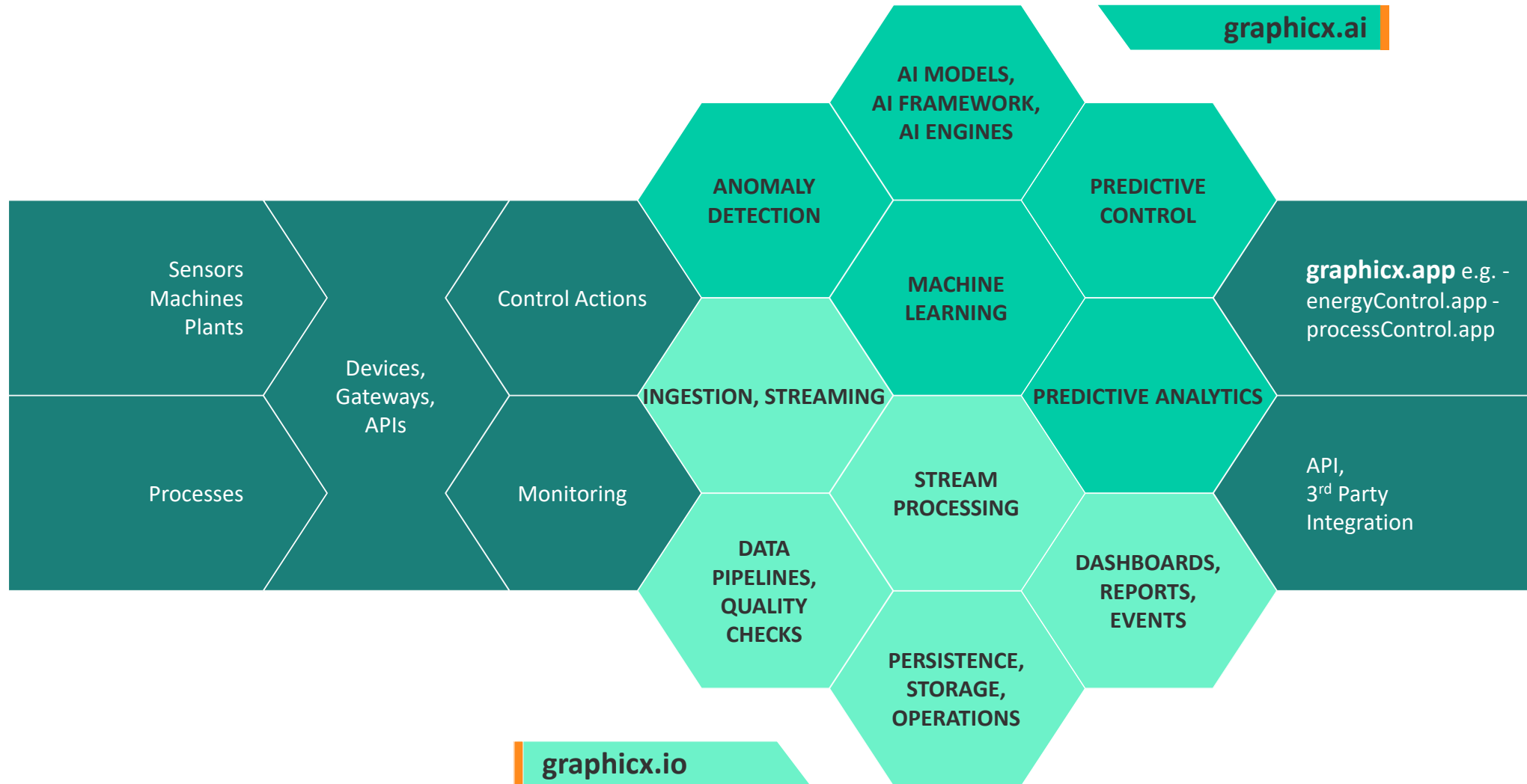
“graphicx enables any engineer to use the power of Artificial Intelligence without prior machine learning knowledge.

Recognizer Analytics

graphicx™ Overview

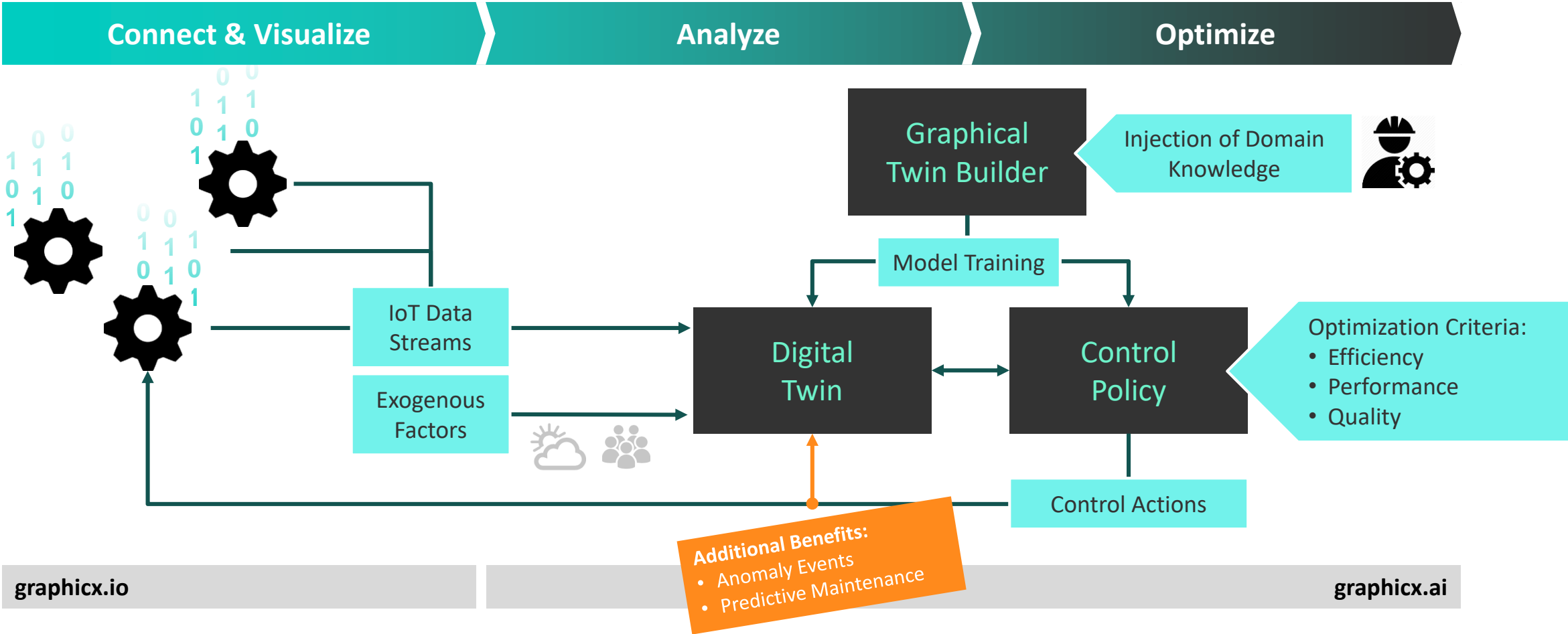
<div>A</div> <div>graphicx.io</div>	<div>B</div> <div>graphicx.ai</div>	<div>C</div> <div>graphicx.app</div>
<p>Horizontal technology → build your own IOT-app</p> <ul style="list-style-type: none">⦿ Connect and visualize your assets	<p>Horizontal technology → build your own AI-app</p> <ul style="list-style-type: none">⦿ Analyze your assets (anomaly detection)⦿ Optimize your assets (predictive control)	<p>Vertical products → utilizing graphicx technology</p> <ul style="list-style-type: none">⦿ energyControl.app<ul style="list-style-type: none">– Heating, ventilation and air conditioning (HVAC) optimizer– Smart power grid optimizer⦿ processControl.app (under dev.)<ul style="list-style-type: none">– Compressed air optimizer– Waste-to-power plant optimizer

graphicx™ Platform Components



Conceptional Overview – Machine Learning meets Engineering

illustrative



Implementing graphicx.ai Always Starts with the Creation of a “Digital Twin”

REAL

Buildings



Data

Machines / Processes



Data

Networks



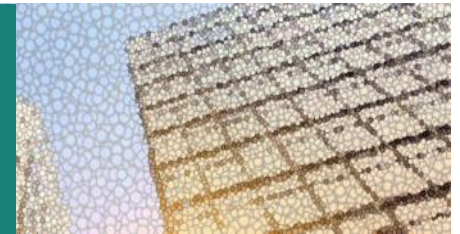
Data

RECOGIZER analytics



DIGITAL TWIN

- Energy consumption
- Weather + occupancy
- Valves, revolution speed
- ...



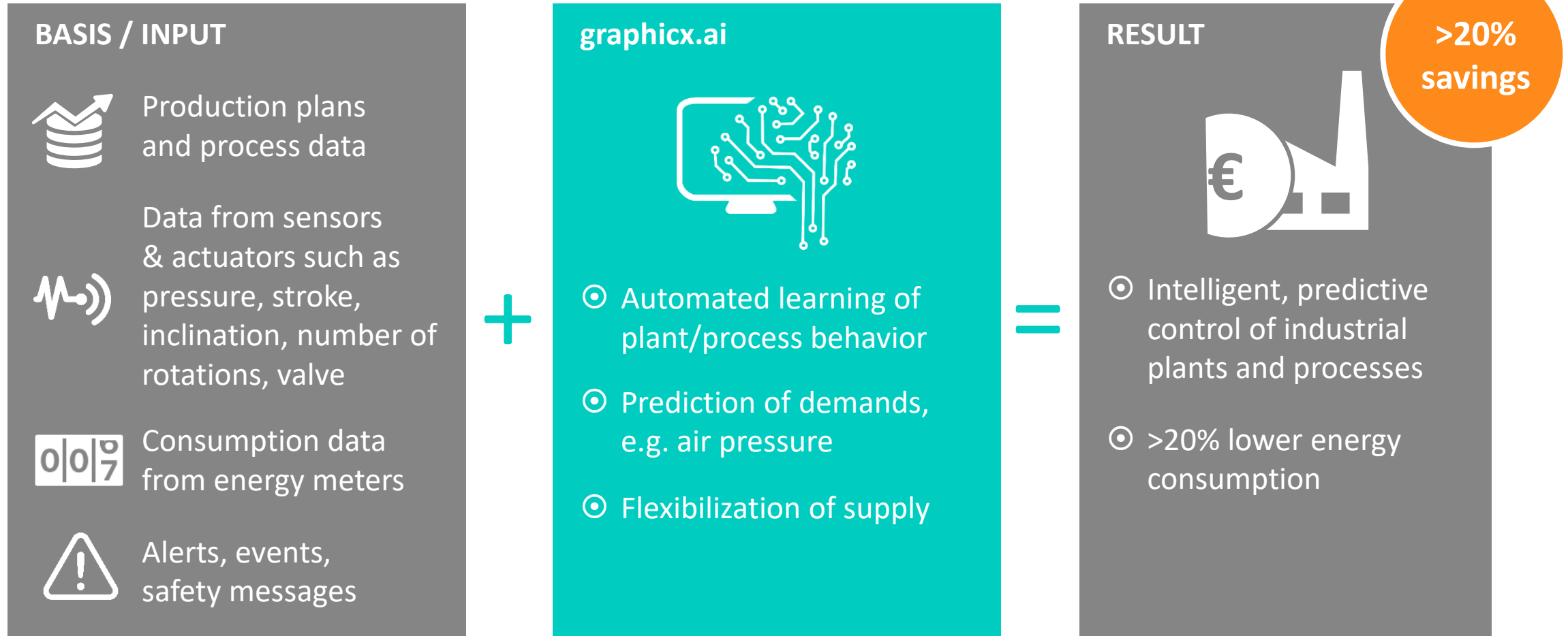
- Energy consumption
- Operational speeds
- Pressure, stroke, inclination
- ...



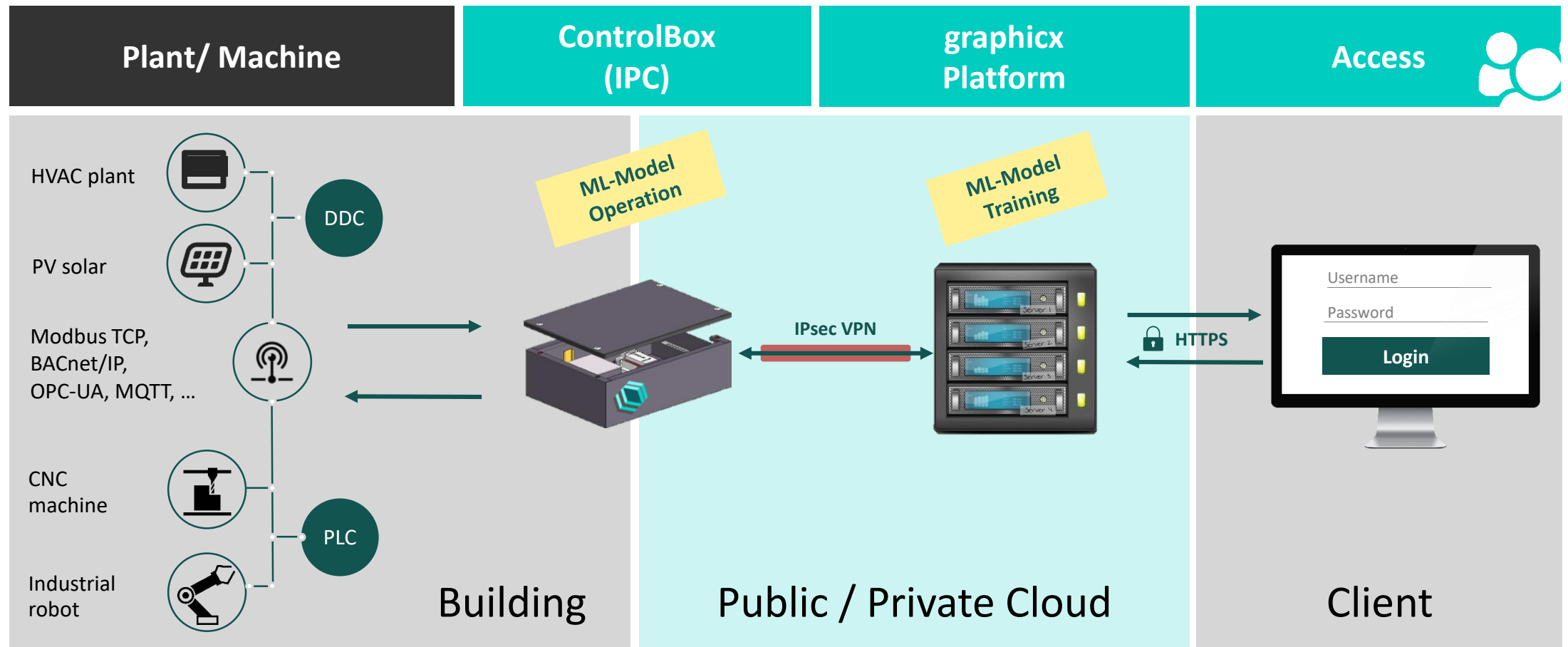
- Energy consumption
- Water level + pump flow velocity
- ...



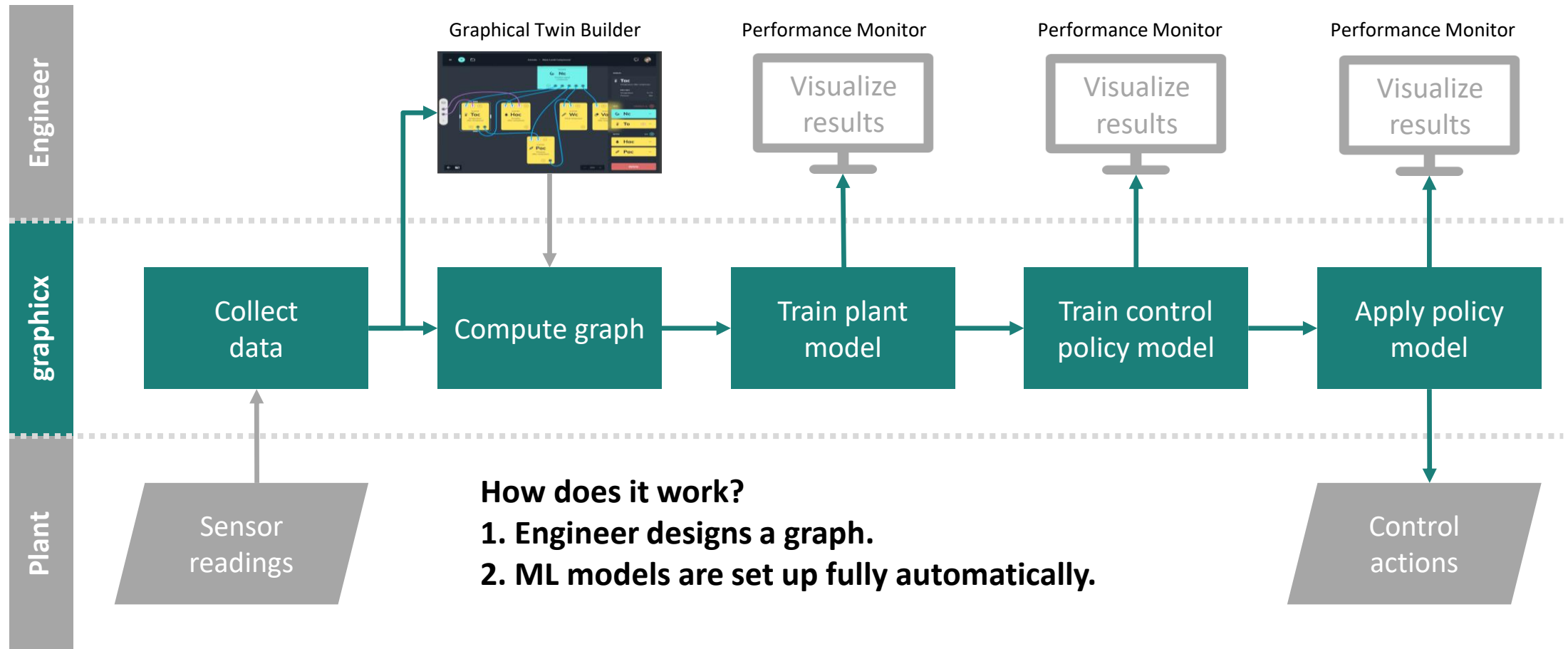
graphicx.ai Makes Industrial Production Smart, Efficient and Cuts Costs



graphicx – Solution Overview

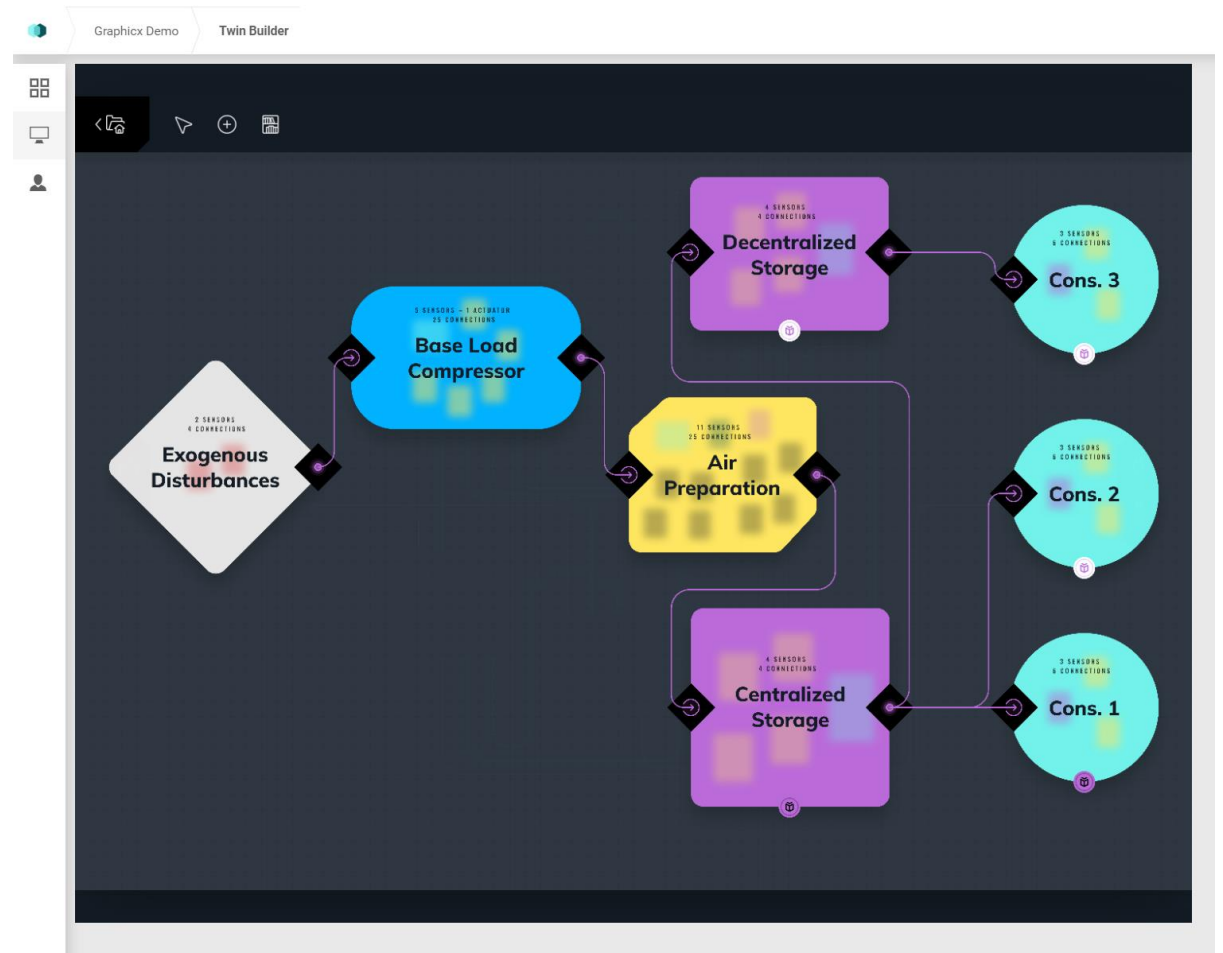
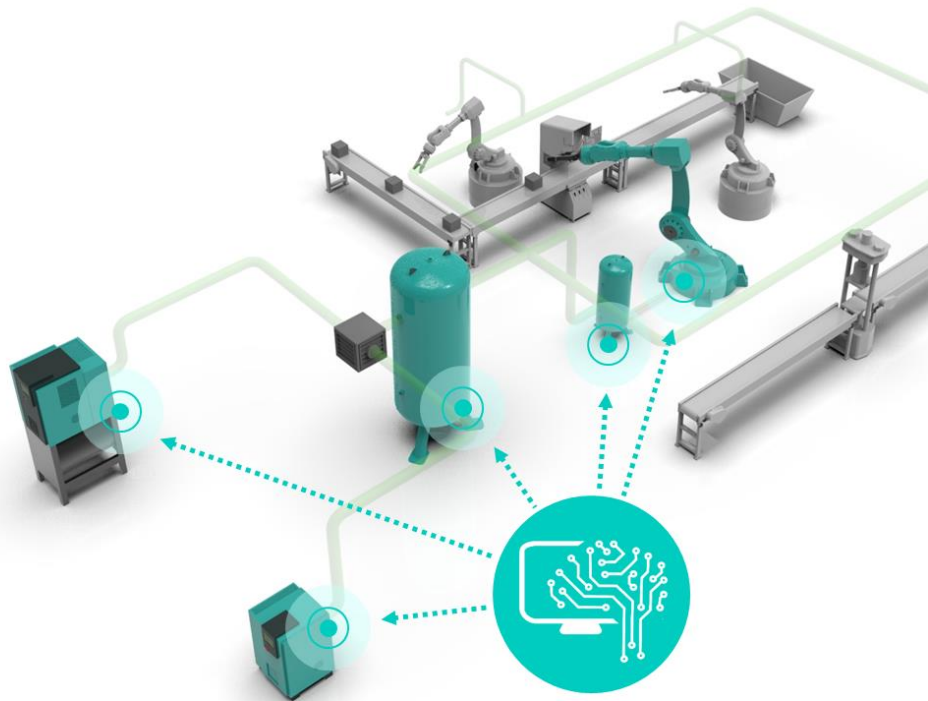


Workflow – The Graphical Twin Builder is The Main Interface For graphicx.ai

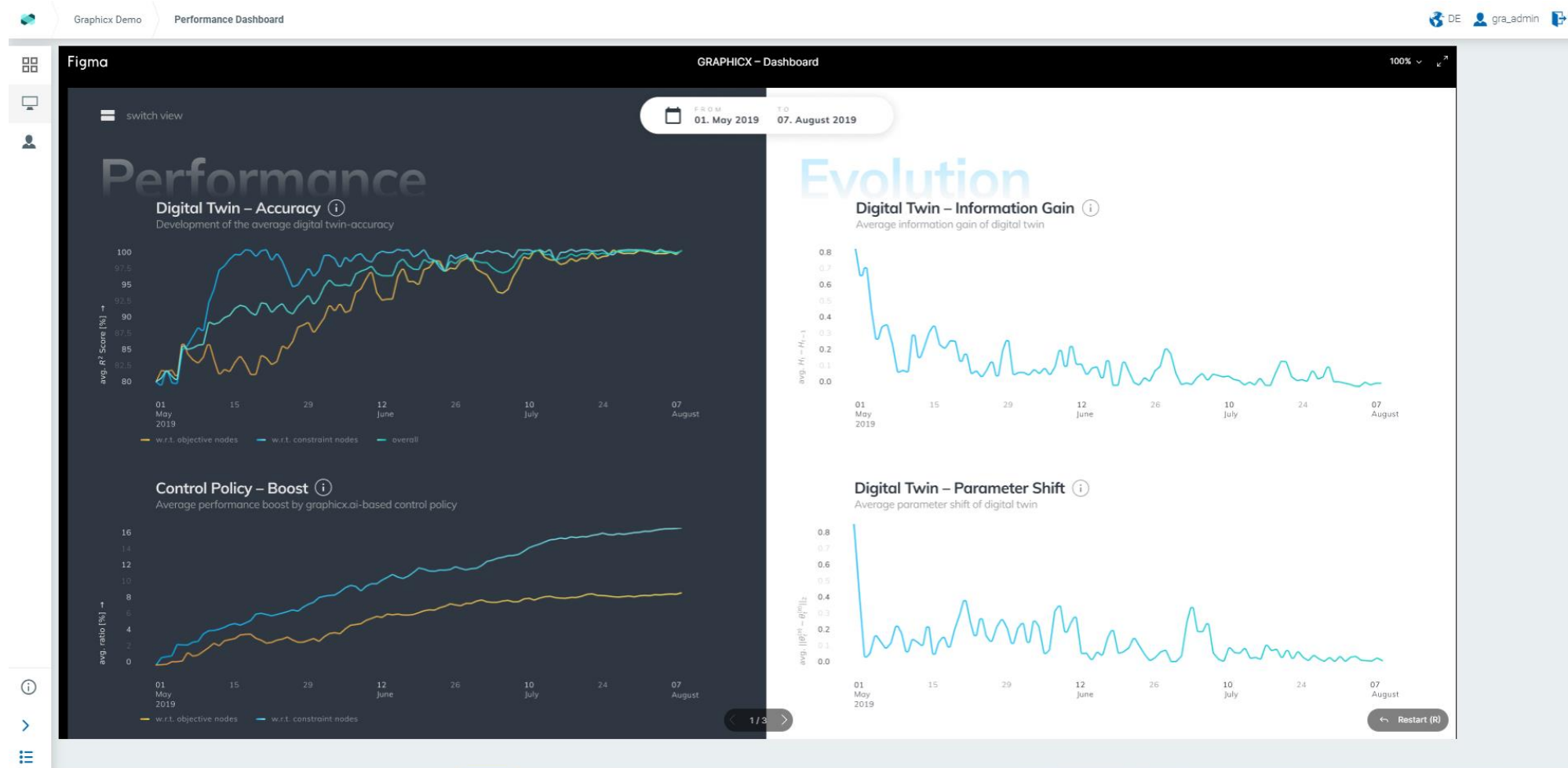


graphicx.ai – Twin Builder

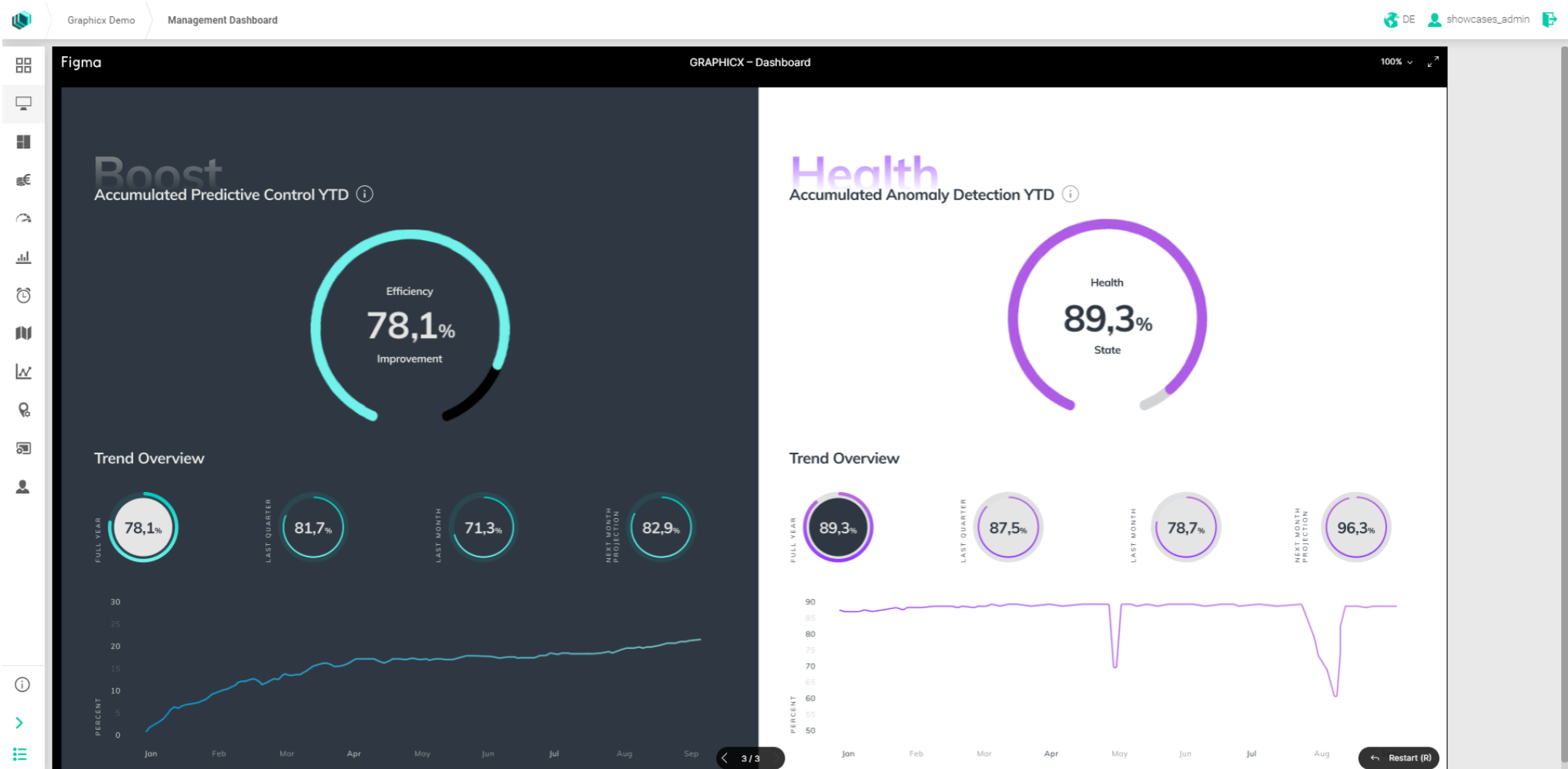
Example: Compressed Air Systems



graphicx.ai – Performance Monitor



graphicx.ai – Management Dashboard



Recognizer: Your Specialized Partner for Connected Things and Artificial Intelligence



- ⦿ Powerful Industrial IoT Analytics Platform
- ⦿ Ready-to-sell ML technologies as Managed Services
- ⦿ In-house machine learning experts + engineers
- ⦿ Lean processes – fast implementation
- ⦿ In-depth Industrial Analytics expertise
- ⦿ Innovative through own research and development

Thank you for your
attention!



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