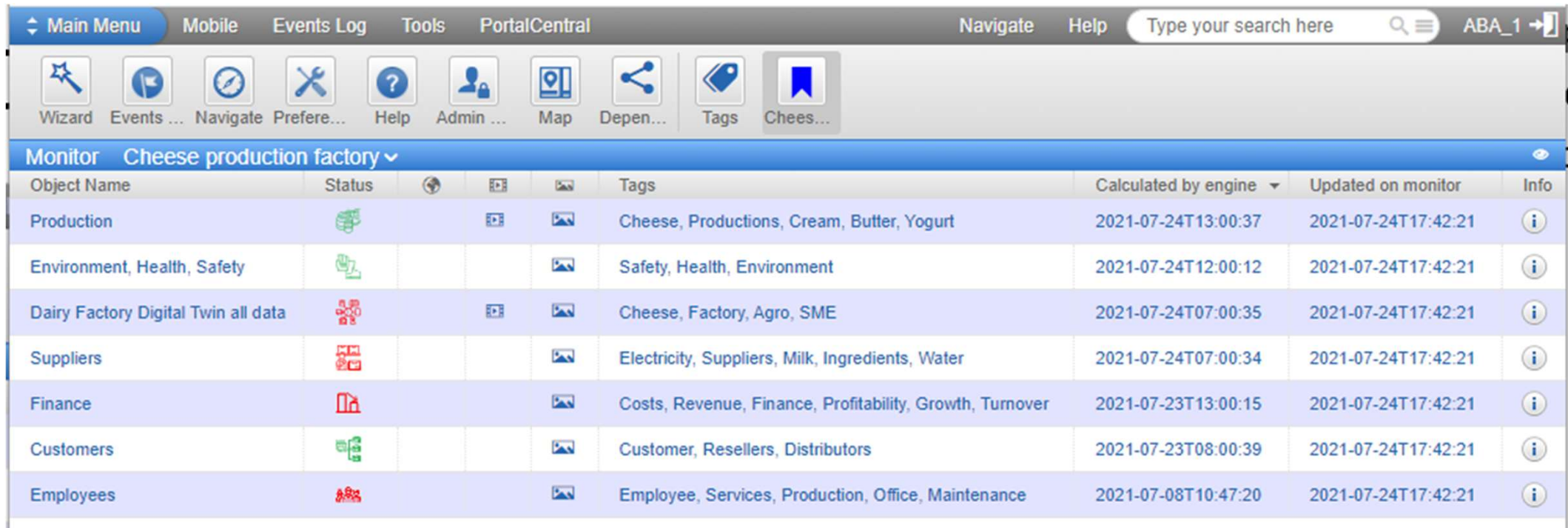# Sample screens' illustrations representing Digital Twin interactions with a plant manager

Web application screens

Stage 0 Model

Plant Monitoring Dashboard

Represents holistic ongoing status of each object. By a click on the object name or relevant icon an user can access the relevant detailed reports and analytics. Dashboard objects can be searched by tags. The dashboard objects and reporting can be customized according to user preferences and role.

Full report Page1 of 7 pages for the Dairy Plant. The icons represent current object statuses:
Green - Excellent, Blue – Normal, Red – Deficient (i.e. there are ongoing problems).

Report for "Production" 🏷️
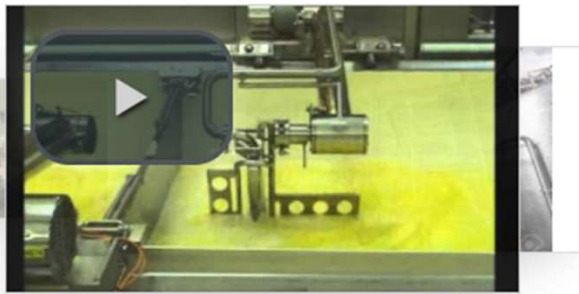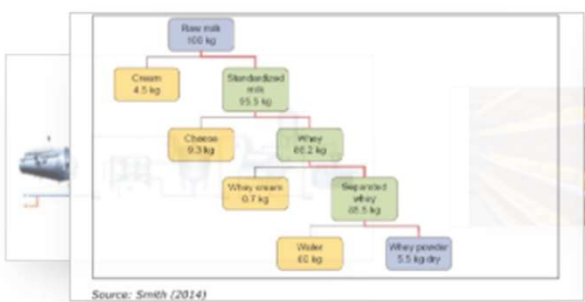
Object name:	**Production**
Current state:	(Excellent)
Report date & time:	2021-07-24T19:50:27
Path:	Dairy Factory Digital Twin all data ▸ Production

⊕ **Optional object states**

⊕ **Sub-objects and their states**

Object	Map	State	Impact on the state
📄 Product group 4 (Yogurt)			✓
📄 Product group 3 (Butter)			✓
⊞ Product group 1 (Cheeses hard)			✓
⊞ Product group 2 (Cream cheeses)			✓

Report for "Product group 4 (Yogurt)" 🏷️

📄 📋 🔗 ⭐ ❓

Object name: **Product group 4 (Yogurt)**

Current state: 🥤 (Optimum)

Report date & time: 2021-07-24T19:51:11

Path: Dairy Factory Digital Twin all data ▸ Production ▸ Product group 4 (Yogurt)

⊕ **Optional object states**

⊕ **Sub-objects and their states**

Object	Map	State	Impact on the state
There are no sub objects available for Product group 4 (Yogurt)			

Product: Yogurt, Indicator "**Labor Productivity per product per day**"
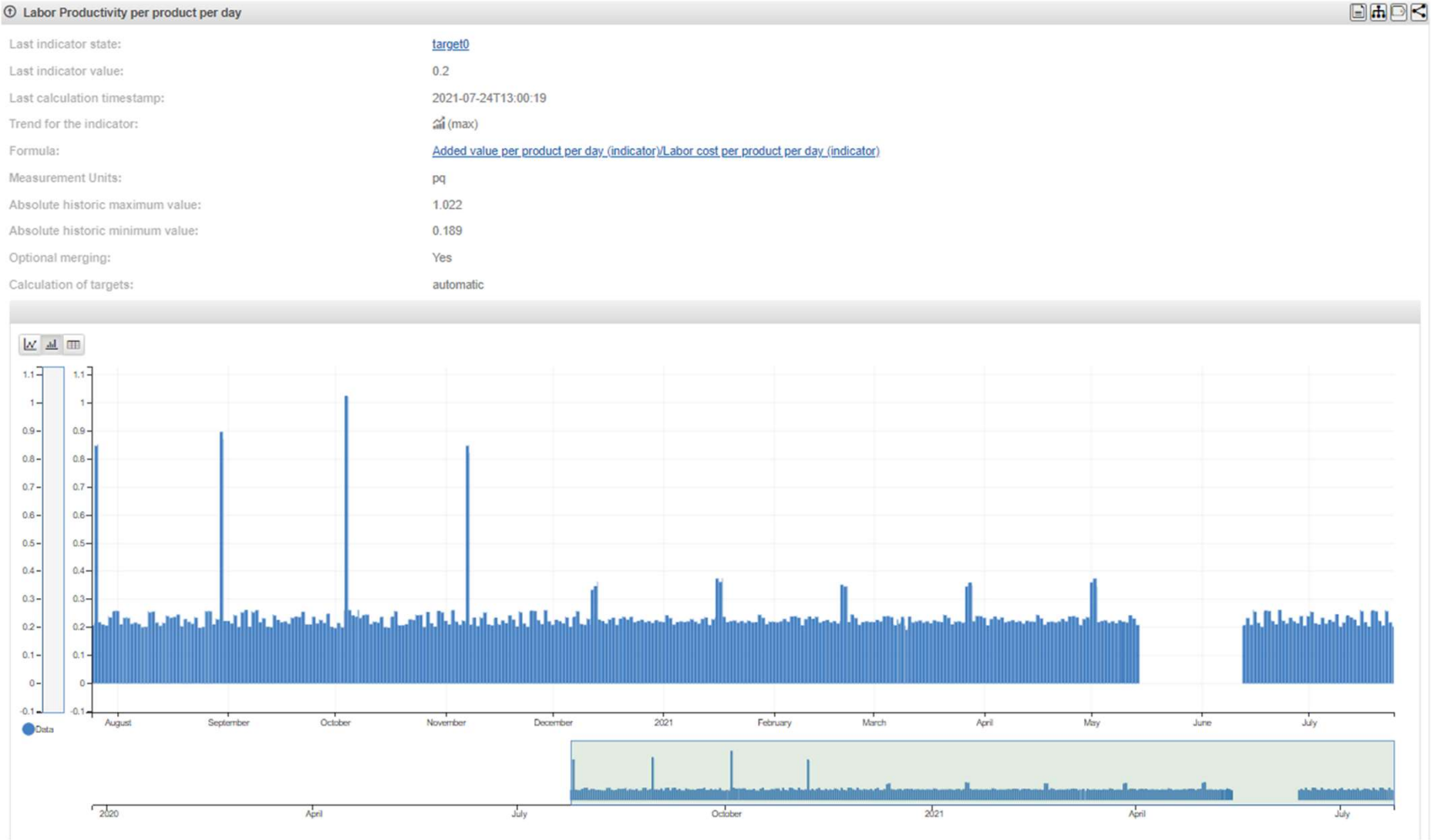
Product: Yogurt, Indicator "**Cost of raw material wasted due to defects per day**"

Cost of raw material wasted due to defects per day

Last indicator state:	target0
Last indicator value:	0
Last calculation timestamp:	2021-07-24T09:00:53
Trend for the indicator:	(min)
Formula:	(Quantity of products produced with defects per day (indicator)+Quantity of product failed audit prior to shipment to customer per day (indicator)+Quantity of product returned by customers per day (indicator))*(Costs of raw materials used for production per day (indicator)/Quantity of products produced per day (indicator))
Measurement Units:	C_u
Absolute historic maximum value:	8.187
Absolute historic minimum value:	0
Optional merging:	Yes
Calculation of targets:	automatic

Overview of the plant model complexity (Stage 0)

Digital Twin Business Objects	# of data sources	Total # of KPIs	Total # of objects and its statuses
Production of 6 products (Cheeses, Butters, Yogurts)	60	132	9
Customers in 3 groups (Restaurant chain, Dairy retailer, Hotel chain)	21	30	4
Suppliers 4 companies (Milk, Ingredients, Water, Electricity)	24	36	5
Employees in 3 groups (Office, Production, Services)	33	63	4
Finance in 3 subgroups (Revenue, Costs, Profitability, Growth, Turnover)	3	12	4
Environment, Health, Safety (EHS)	11	11	1
Factory as top-level business object			1
Totals for the Digital Twin model	**152**	**284**	**28**

Each plant object is Smart, it is calculating own performance according to planned targets and reports the results to the Plant Manager and operators in real time.

Reference site:
Dairy.Pharosnavigator.com