

Care process DT for complex demand with resource management

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Physical Twin description

The multistep care pathway from admission to rehabilitation combined with the working process of medical and paramedical resources. Surgery, emergency and cancer treatment are the main use cases.

Digital Twin usages

- To simulate and evaluate future scenario in the offer of care and/or the demand.
- To propose optimized organizational configurations.
- To support a fair and coordinated regulation of care pathways.
- To train staff face to crisis or new organizational setting.

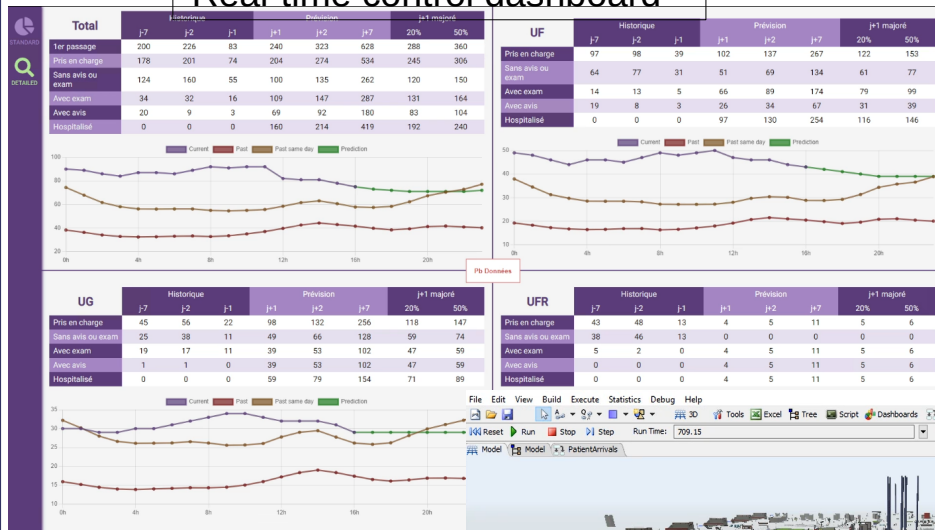
Digital Twin Description

A monitoring, prediction and decision support software based on data analytics and detailed process models – a network of digital twins.

Engineering Digital Twin challenges

- To coordinate the network of DT.
- To design efficient data-driven combinatorial optimization models and algorithms.
- To automate the setting of models (Bayesian Inference, Reinforcement Learning).
- To manage the 'FAIR' access to historical and real time data.

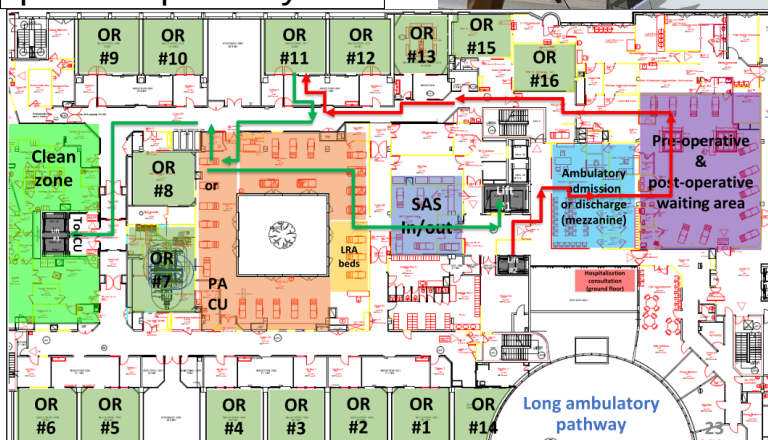
Real-time control dashboard



Detailed monitoring and simulation



Analysis of real patients pathways



Exploitation of indoor tracking system

