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MAGPIE
SMART GREEN PORTS

JUMO TERMINAL SIMULATOR

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Introduction

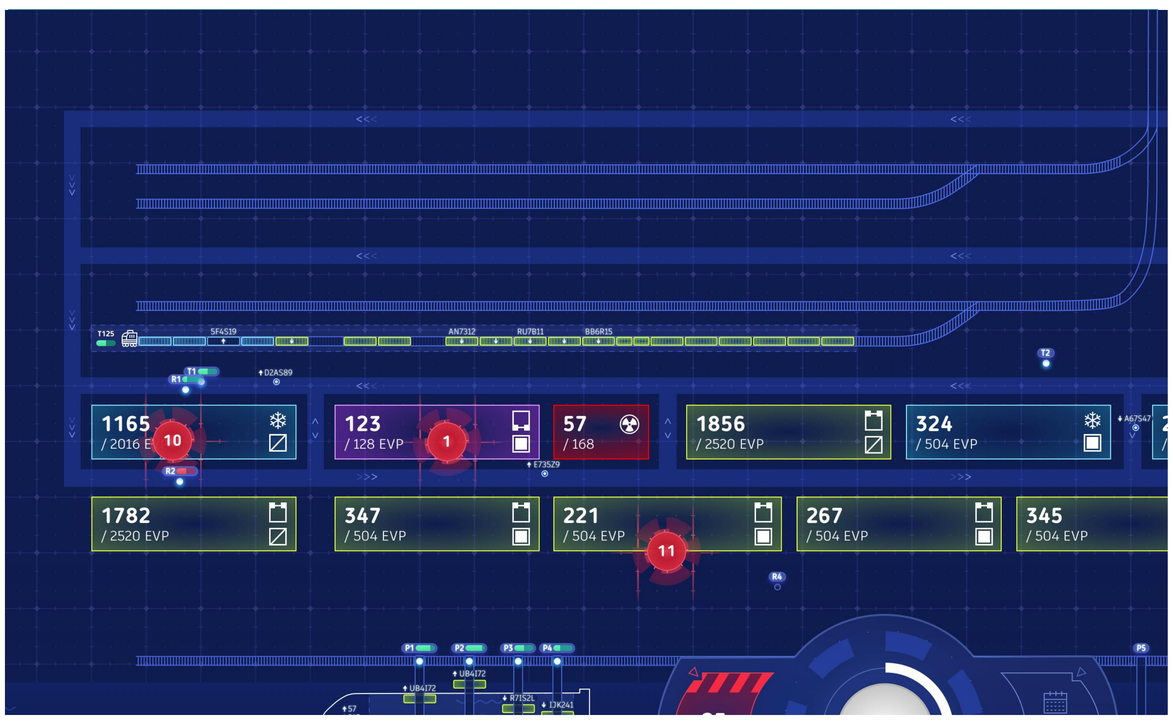
- **Aim of demo -** Simulate the logistic activity of a container terminal with associated energy consumption
- **Value proposition -** Predict the movements (load / unload / storage) of the devices and products to / from the port terminal in order to estimate the real time consumption as well as the use of the infrastructures (cranes, reefer plugs, battery swaps, recharge stations etc…)

KPIs

- Distances of terminal devices
- Energy consumption of terminal devices
- Recharge duration of terminal devices (for electrical and hybrid ones)
- Storage duration of containers / goods

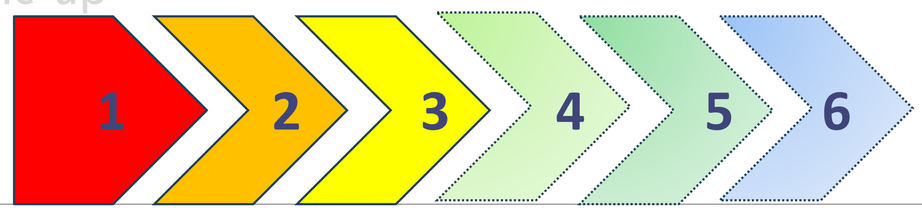
Lessons Learned

- **Scalability –** scalable thanks to a data generator
- **Barriers –** amount of macro data required to have a simulation that can be compared to a real-life system. Port authorities did not often have knowledge of terminal operation by private companies
- **Barriers –** energy is not considerate holistically for the whole port territory and all the stakeholders but independently per each stakeholder



Current Progress Status

1. Launch of demonstrator; 2. Elaboration of KPIs, Operation characterization and modelling, and ongoing studies; 3. Testing phase in lab and data collection; 4. simulations and testing phase in pilot area; 5. results and commercially available; 6. ready to scale up



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