



This project has received funding from the European Union's Horizon2020 research and innovation programme under grant agreement N° 863819

FlexPlan

Advisory Board | 24th November 2021

Presentation of the Graphical User Interface of the new FlexPlan planning tool

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N-SIDE

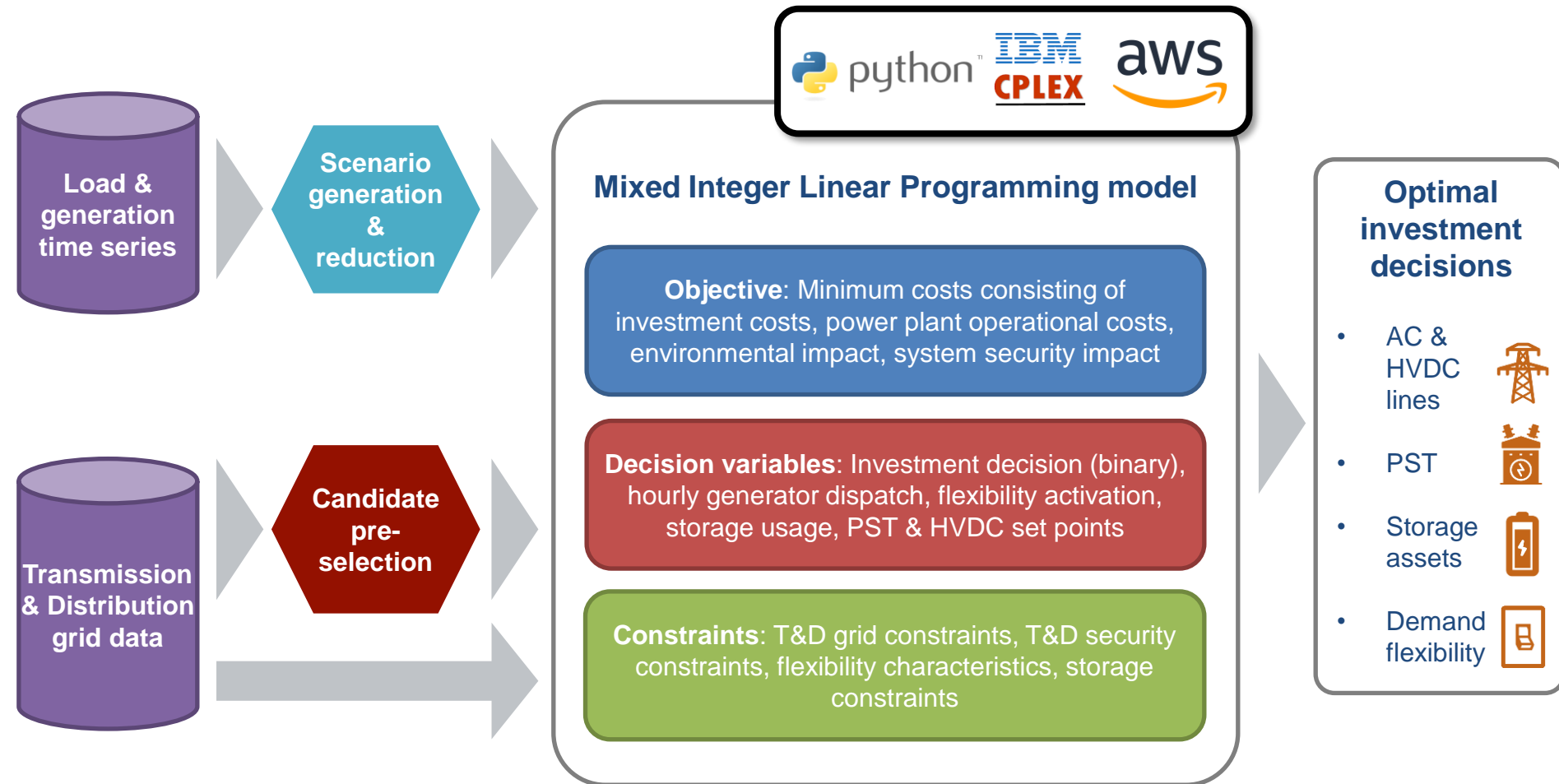


Agenda

- Reminder: the FlexPlan Planning Tool
- The Graphical User Interface (GUI):
 - GUI Design Process
 - Requirements, sketches and user flows
 - Wireframes and prototypes
 - Mock-ups and prototypes
 - Implementation
 - Live Demonstration

Reminder: the FlexPlan Planning Tool

The FlexPlan planning tool aims at solving a large-scale optimization problem



Building up a Graphical User Interface is a rigorous, methodological and iterative process



- In order to build the **right product** for the users, it requires to go through a full process of **user experience (UX) / user interface (UI)** design prior to the development phase with the following main steps:
 - Identification of **requirements**: collect the feedback/opinion of potential users through customer consultation surveys
 - **Design** of the GUI: technologies, features and interactions between the screens
 - **Implementation** of the GUI, including the link with the core engine of the tool
 - Writing **documentation** for the GUI and using of the planning tool



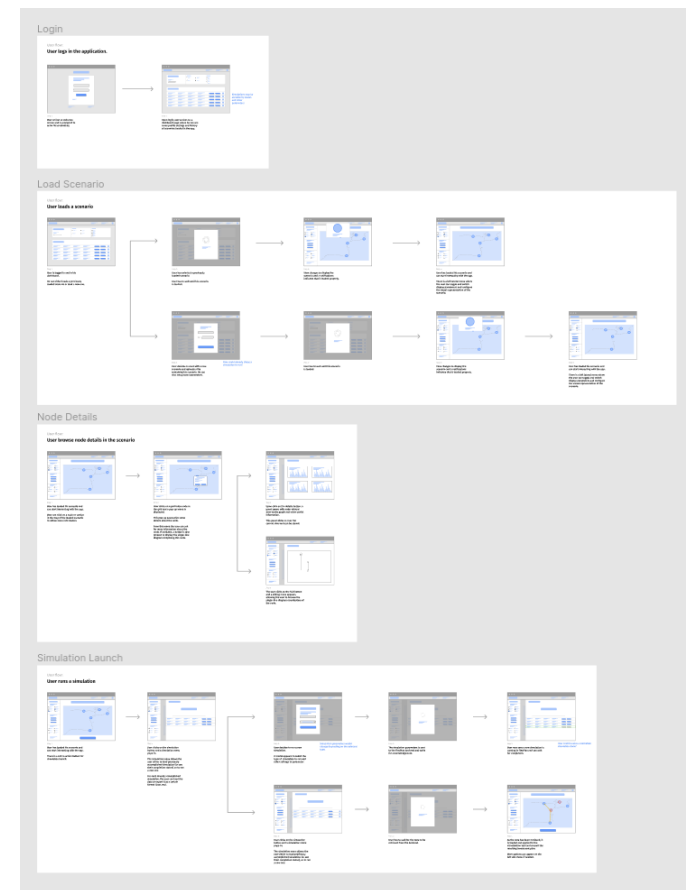
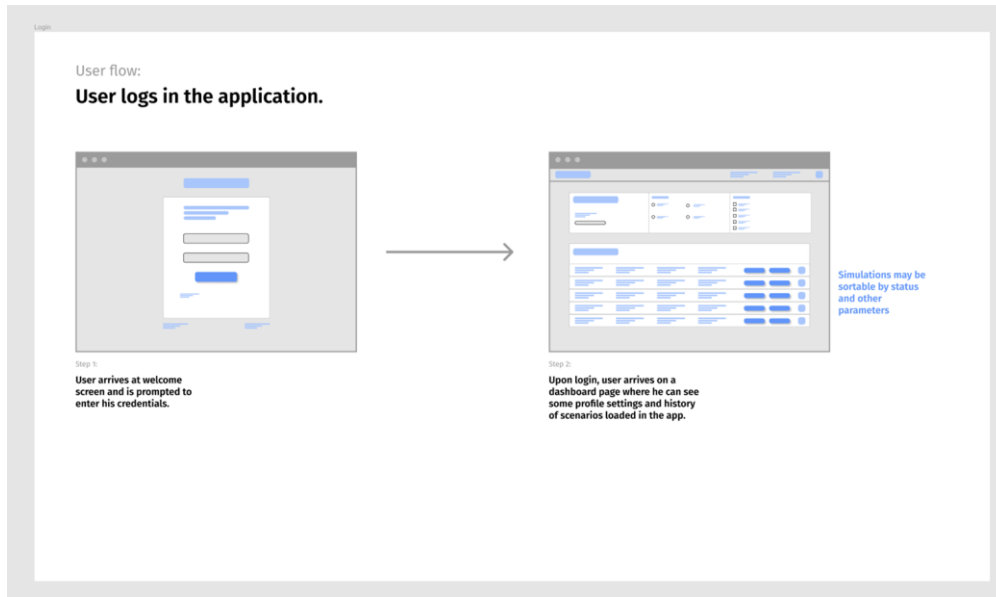
We are here!

Requirements Analysis and User Flows

Building up a Graphical User Interface is a rigorous, methodological and iterative process



- Analyze the **requirements**
- Sketch and **draft ideas** to fulfill
- Compose **user flows** (diagrams representing the user's journeys) that match the requirements
- **Iterate** to quickly get in the right direction
- Create a **rough idea** of the potential future app

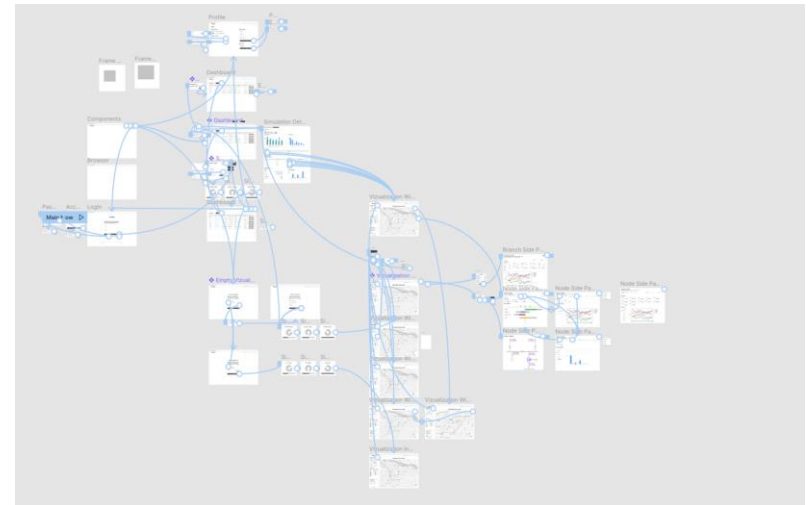
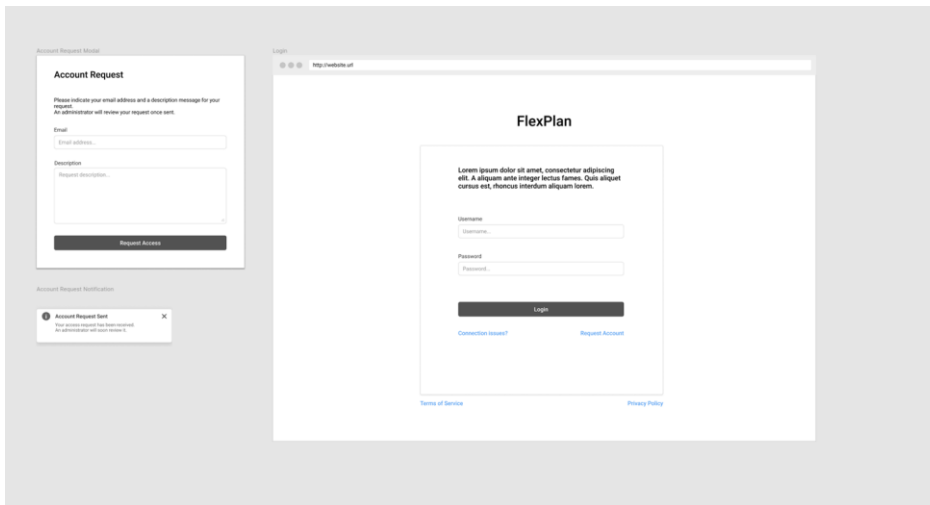


Wireframes and Prototypes

Building up a Graphical User Interface is a rigorous, methodological and iterative process



- **Concretize** the **features** aiming to fulfill the requirements
- Represents the final application **without any design consideration**
- Focus on **user experience** and structure of the application
- Again, **iterations** and discussions with partners to reach agreement over the features
- **Prototyping** (showing the **links between the different screens**) your wireframe enable interaction and simulate behavior of the final app

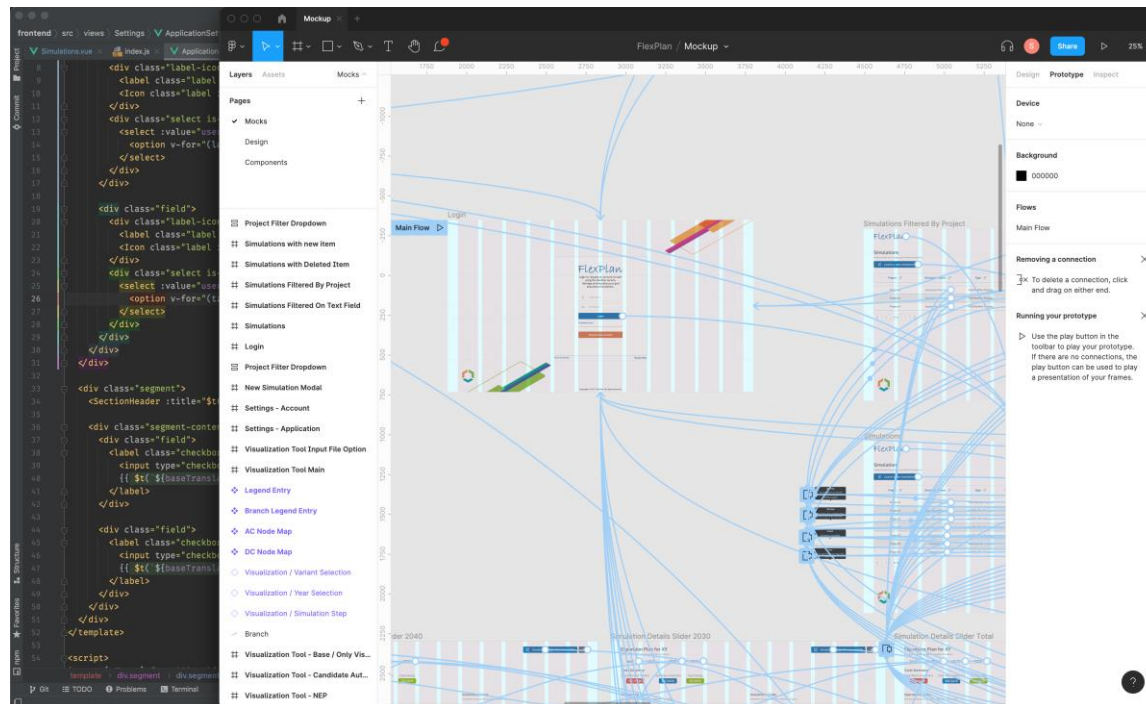


Mockups and Prototypes

Building up a Graphical User Interface is a rigorous, methodological and iterative process



- **Reaching agreements** on the features
- Time to create a **high-fidelity** version of the final app
- Will help **refine features** and **validate** with partners
- Will **help developers to implement the product**: no need to reflect or improvise what the app must look like



Mockups and Prototypes

The simulation dashboard is the cockpit of the user



FlexPlan

Visualization Tool Simulations Settings Logout

Simulations
Create, browse and manage your FlexPlan simulations.

Launch a new simulation

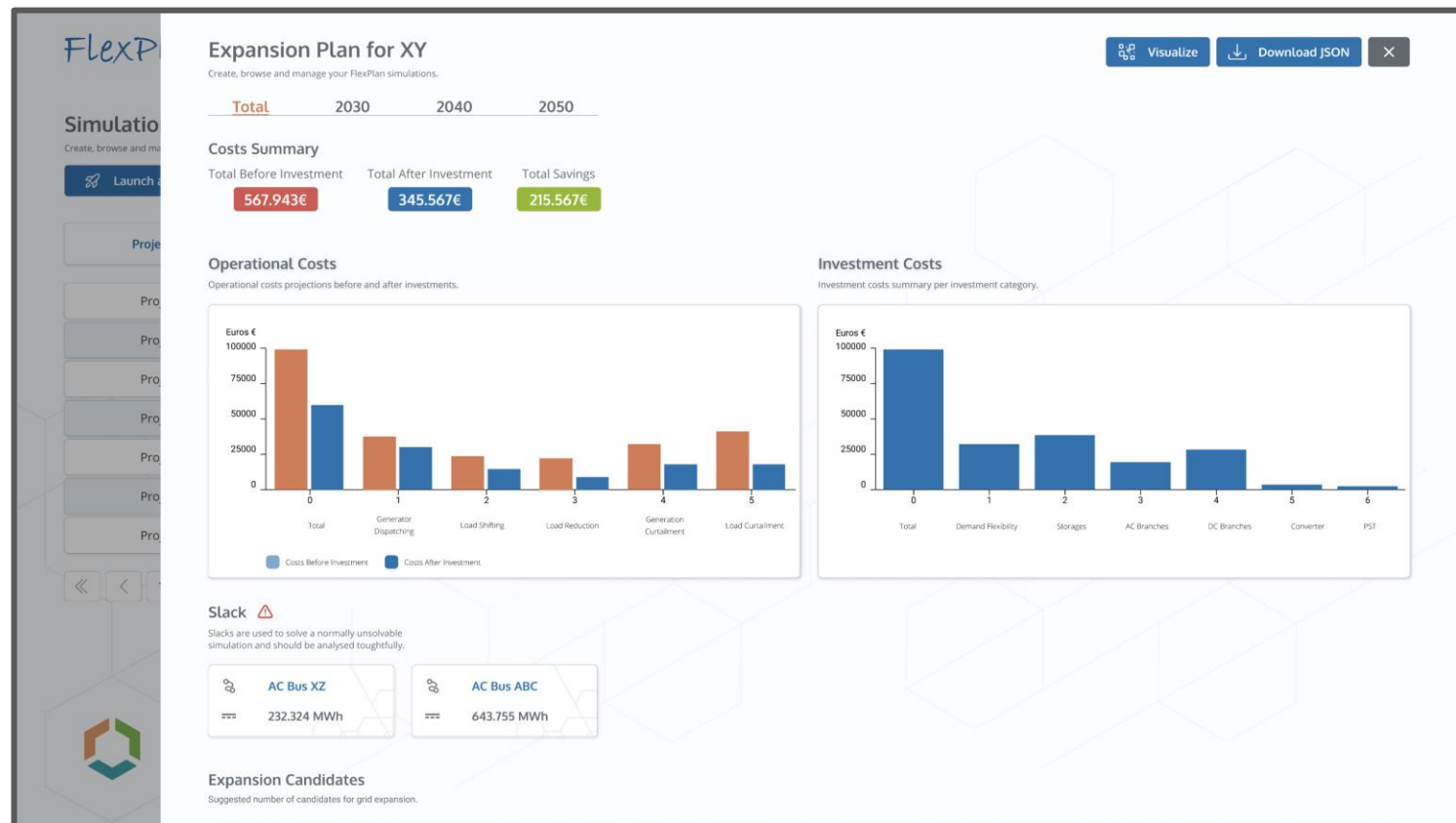
Filter by project Search ...

Project	Simulation Name	Type	Status	Launch Date	Total Cost	Input File	Actions
Project A	Expansion Plan for XY	Full FlexPlan Process	RUN	12 May 2021 - 21:32:54		input_file_200321.json	
Project A	Expansion Plan for XY	Full FlexPlan Process	WRN	12 May 2021 - 19:32:54	713.934,43 €	input_file_200321.json	
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Project B	Expansion 00 D	Full FlexPlan Process	END	13 May 2021 - 21:32:54	276.423,43 €	test.json	
Project B	Expansion 00 C	Full FlexPlan Process	END	10 May 2021 - 21:32:54	832.423,43 €	test.json	
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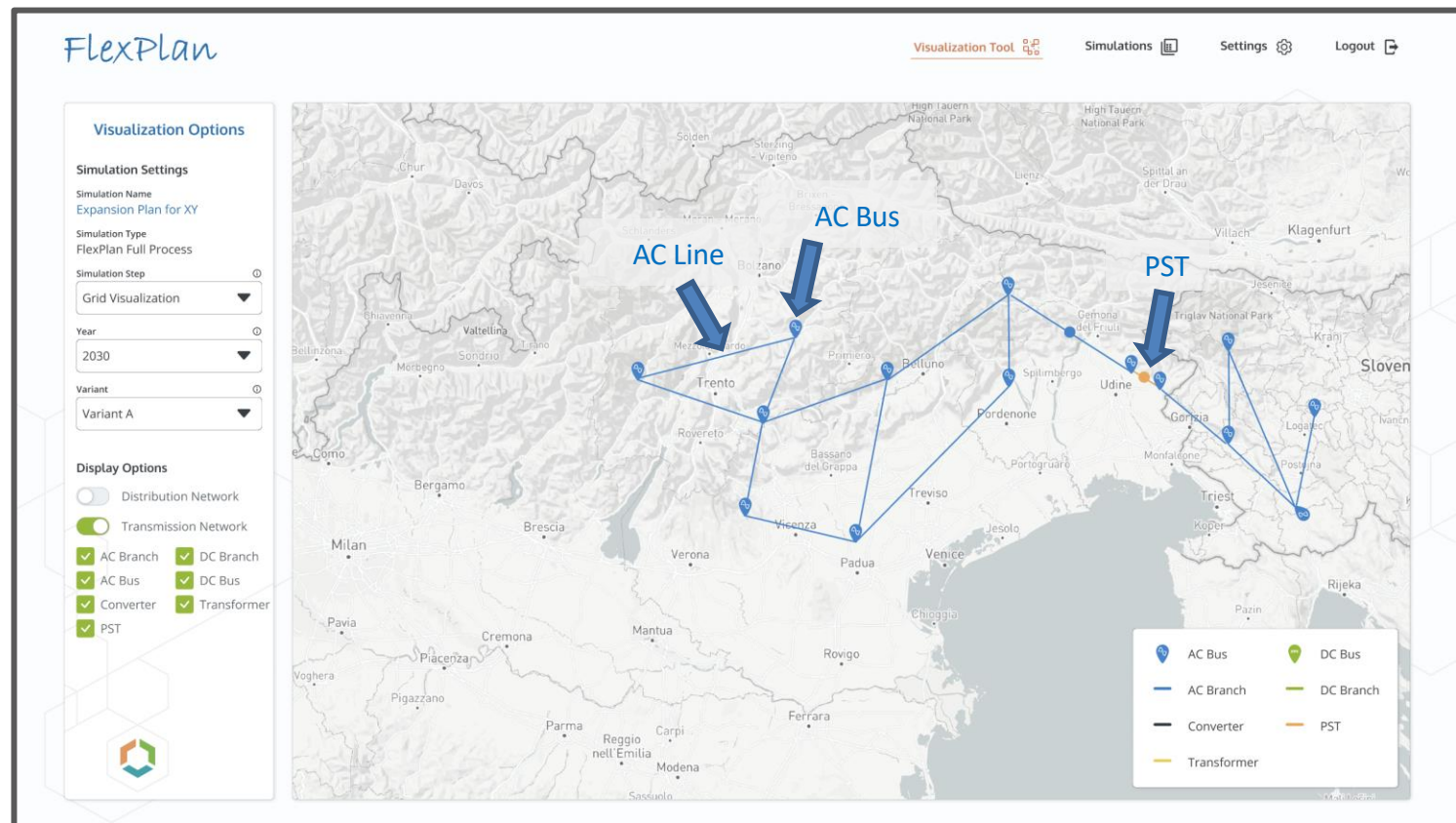
Mockups and Prototypes

From the dashboard, the user can quickly access summarized information of its runs



Mockups and Prototypes

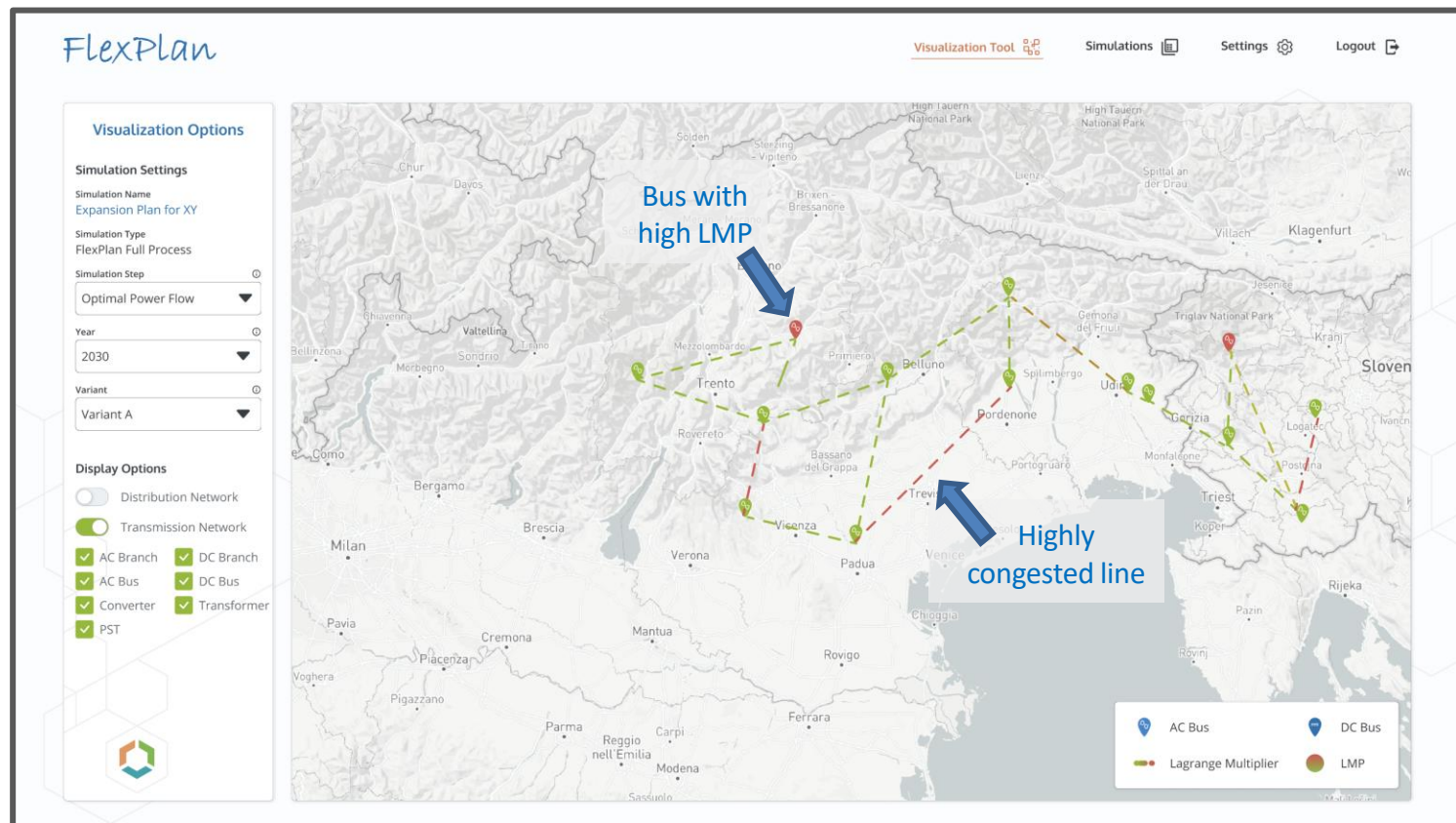
All steps of the FlexPlan planning tool can be visualized in the Graphical User Interface



Step 1: visualize the grid as it exists today (non-expanded)

Mockups and Prototypes

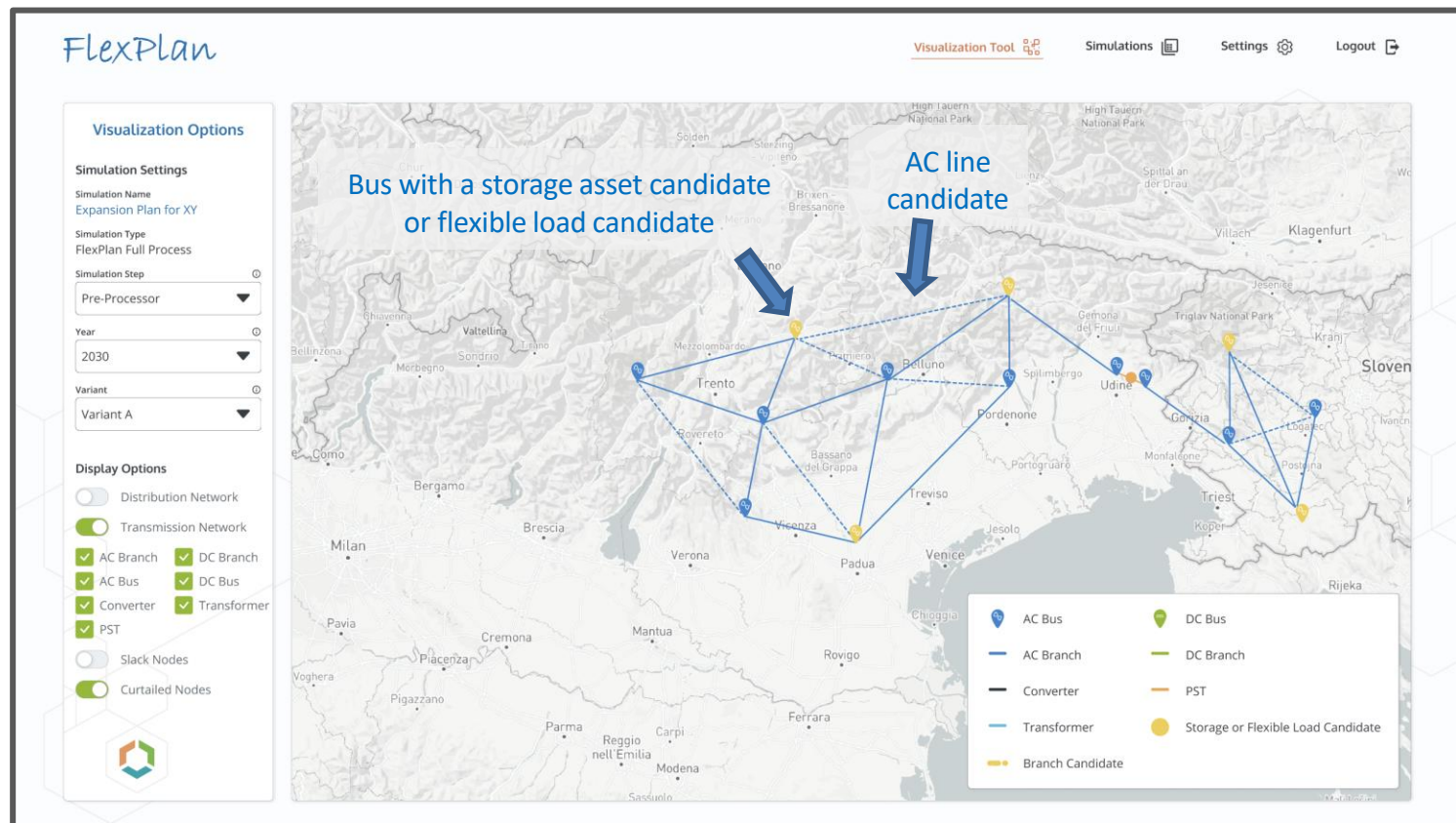
All steps of the FlexPlan planning tool can be visualized in the Graphical User Interface



Step 2: visualize the results of the non-expanded optimal power flow with, in particular, congested lines and buses with high locational marginal prices

Mockups and Prototypes

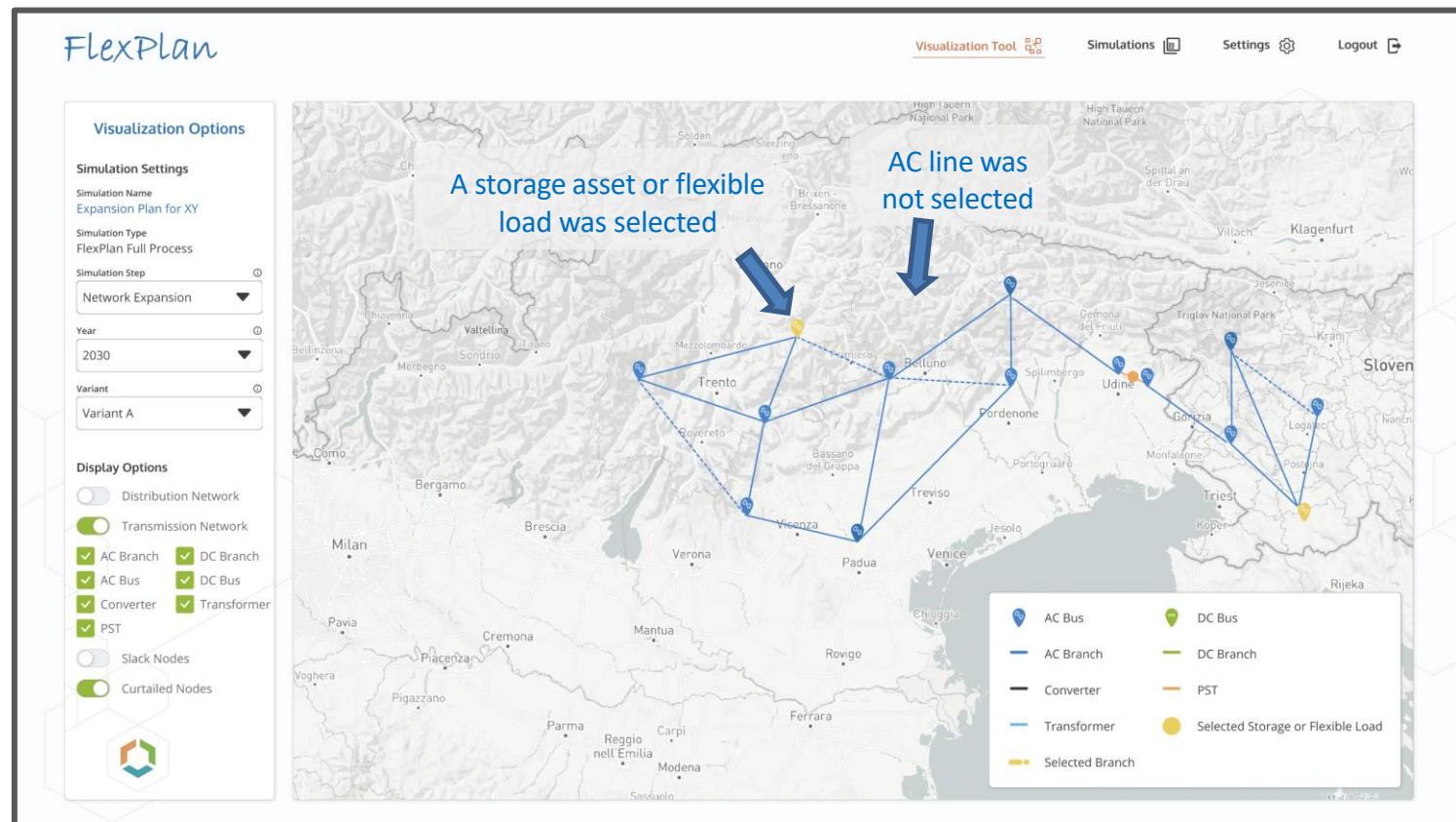
All steps of the FlexPlan planning tool can be visualized in the Graphical User Interface



Step 3: visualize all the possible network reinforcement candidates, storage asset candidates and flexible demand candidates computed and provided by the pre-processor

Mockups and Prototypes

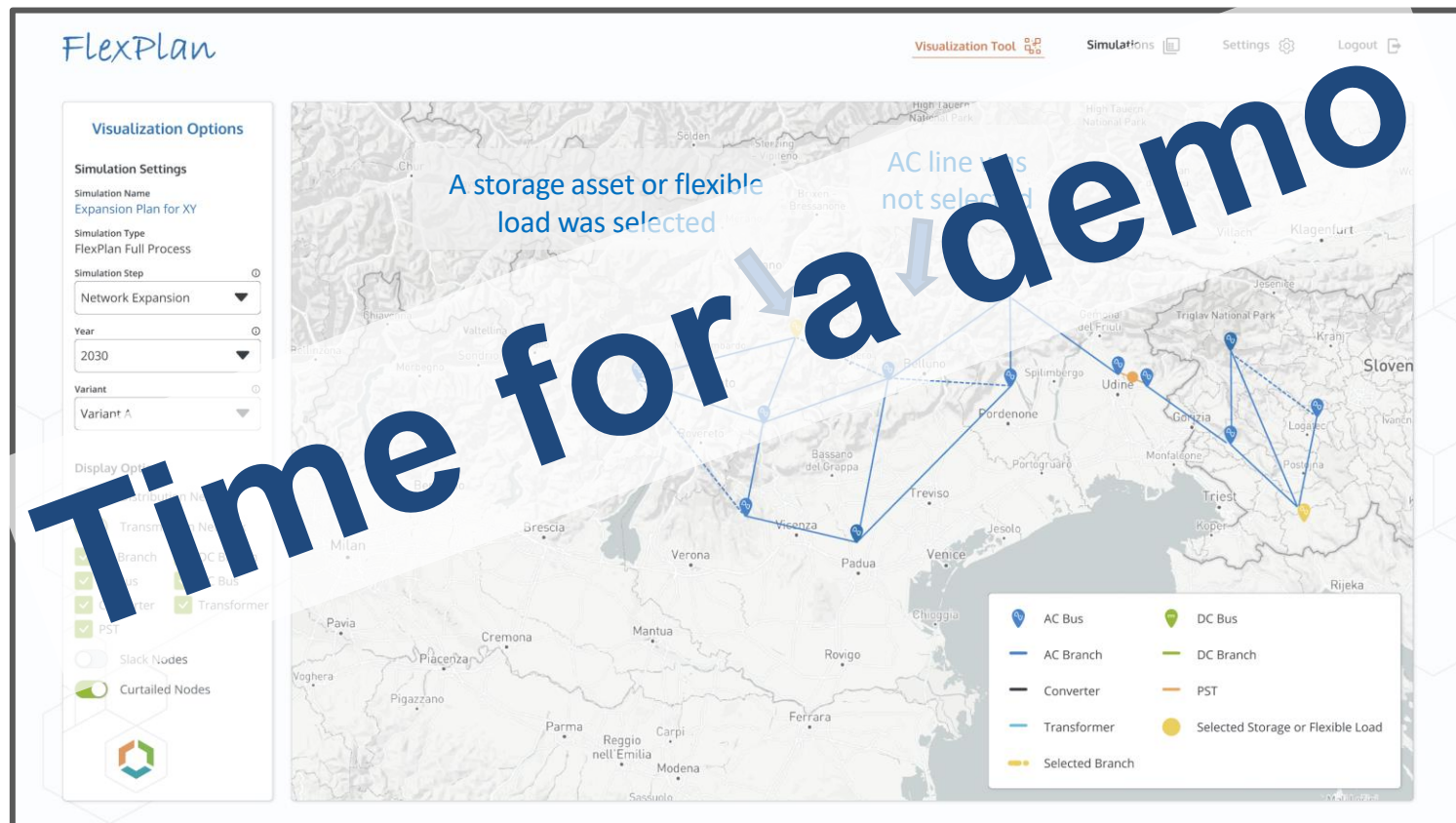
All steps of the FlexPlan planning tool can be visualized in the Graphical User Interface



Step 4: visualize the network assets, storage elements and demand response programs selected by the FlexPlan planning tool to solve congestion issues while minimizing global system costs

Implementation

Implementation can then smoothly take place with the mock-ups as reference



Step 4: visualize the network assets, storage elements and demand response programs selected by the FlexPlan planning tool to solve congestion issues while minimizing global system costs

Thank you...

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