



## Systems Engineering/Tool-Based Exploration

### CONTEXT

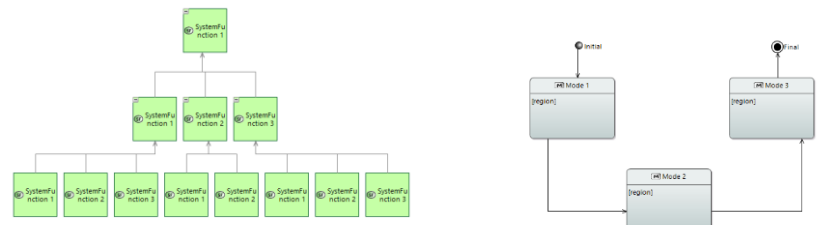
- Optronics equipment and systems for the Defense, Security and Space sectors
- Projects carried out in a much too sequential and siloed way
- Engineering not collectively challenged (one solution for one product)
- Not a common approach for all product developments
- Bottom Up approach (component to operational)

### CESAMES'S METHOD & APPROACH

CESAM methodology has been applied to several projects related to complex optronics products. As first step, the approach has been applied without any MBSE tool. Then CAPELLA solution, implemented by ARCDIA methodology, was used with the CESAM. Hereunder are listed the different artefacts from the CESAM which have been used in CAPELLA MBSE tool :

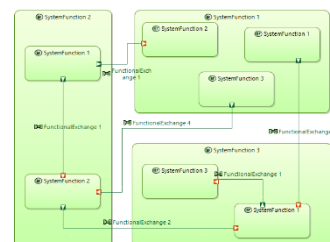
#### OPERATIONAL Vision

- Operational contexts
- Missions
- Operational scenarios



#### FUNCTIONAL Vision

- Functions and functional interactions
- Functional scenarios



#### CONSTRUCTIONAL Vision

- Components and component interactions

### SAMPLE OF CREATED VALUE

- Scalability and reuse of models through several products
- Canevas and guidelines (tool-based) ensuring a common approach for all products and teams
- Capitalization of information and knowledge on complex products
- Better communication both internally and externally with partners, suppliers and customers
- Accessibility and single source of information
- Identification of trends and ways to optimize and rationalize the products management