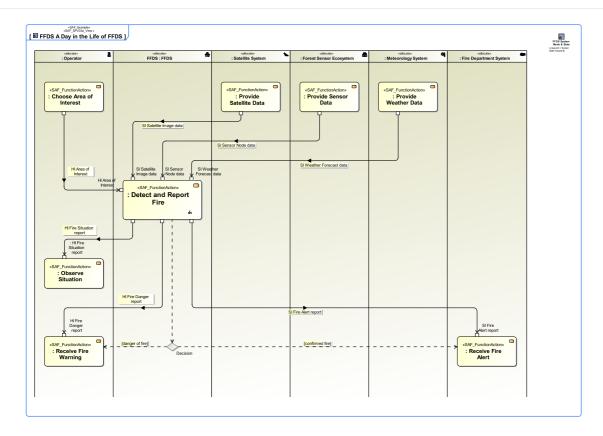
# **System Process Viewpoint**

Domain: Functional Aspect: Behavior

## **Example**



## **Purpose**

The System Process Viewpoint provides the functional representation of the system using a black-box approach

- the representation of the SOI and all Context Element(s)
- the System Function(s) the SOI shall be able to perform
- the Context Function(s) the Context Element(s) are expected to perform
- the exchange between SOI System Function(s) and Context Function(s) of Context Element(s)
- the functional flow(s) crossing the boundary between SOI and Context Element(s)

### **Applicability**

The System Process Viewpoint supports the "System Requirements Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 [§4.3] and contributes to the System Function Definition and the System Functional Interface Identification. Note:

#### Stakeholder

- Customer
- Safety Expert
- Security Expert
- System Architect
- User

#### Concern

- · How does a system function interact with its environment?
- · Which functions will the system provide?
- How is the system interacting with the identified external entities?
- What are necessary inputs for operating the system expected to be provided by other external entitys?
- What is the functional scope of the system?
- · Which functions are out of scope of the system?
- · What are the functional interfaces of the system?
- · What services are expected from external entities?

#### **Presentation**

The Functional Scenario Activity(s) and their sequence related to a System UseCase are represented in activity diagram(s) featuring swim lanes. The swim lanes are typed with Context Element(s) and SOI usage from the System Context(s). Note: It is recommended to compile separate activity diagrams refining Use Case and System Context.

### **Profile Model Reference**

- Allocate [SysML Profile]
- Allocate [SysML Profile]
- Association [UML\_Standard\_Profile]
- Association [UML Standard Profile]
- ControlFlow [UML Standard Profile]
- InputPin [UML Standard Profile]
- ObjectFlow [UML\_Standard\_Profile]
- OutputPin [UML\_Standard\_Profile]
- SAF ContextFunction
- SAF\_FunctionAction
- SAF\_SFV03a\_View
- SAF SystemFunction
- SAF SystemProcess

# **Input from other Viewpoints**

## **Required Viewpoints**

none

## **Recommended Viewpoints**

- Operational Context Definition Viewpoint
- Operational Domain Item Kind Viewpoint
- System Context Definition Viewpoint
- System Domain Item Kind Viewpoint