

# Viewpoint Concerns

| Package                 | Concern   | Stakeholder | Viewpoint   |
|-------------------------|---|-------------|---|
| 29148 specific concerns | What is the purpose of the system?  |             |   |
| 29148 specific concerns | Which classes of users (roles) will interact with the system?                   |             | <a href="#">System Context Definition Viewpoint</a> |
| 29148 specific concerns | What are assumptions and constraints imposed on the system?                     |             |   |
| 29148 specific concerns | What are the operational scenarios(Operational Stories) relevant to the system? |             |   |
| 29148 specific concerns | What are the interactions among the systems users / user classes?               |             |   |
| 29148 specific concerns | What operational impacts does the system impose to its operational environment? |             |   |
| 29148 specific concerns | What is the support environment for the system?                                 |             | <a href="#">System Context Definition Viewpoint</a> |
| 29148 specific concerns | What are the connections between the major system elements?                     |             |   |
| 29148 specific concerns | To which proposed system does the OpsCon apply?                                 |             |   |
| 29148 specific concerns | Which operational policies and constraints apply to the system?                 |             |   |
| 29148 specific concerns | Which operational policies and constraints do exist?                            |             |   |
| 29148 specific concerns | How do system capabilities depend on system modes?                              |             |   |

| Package                    | Concern   | Stakeholder  | Viewpoint                    |
|----------------------------|---|--|------------------------------|
| 29148 specific concerns    | What is the current system to be changed or upgraded?   |  |                              |
| 29148 specific concerns    | What is the future/proposed system?   |  |                              |
| 29148 specific concerns    | Which Operational Performer will operate or run the system?   |  |                              |
| 29148 specific concerns    | What are the major system elements?   |  | Physical Structure Viewpoint |
| 29148 specific concerns    | What are the priorities(e.g. essential,desirable,optional) of capabilities for the system?            |  |                              |
| 29148 specific concerns    | What is the organizational structure of systems users / user classes?                                 |  |                              |
| _repository (to be sorted) | What additional interfaces are necessary to expose internal properties, states and modes for testing? | IV&V Engineer  |                              |
| _repository (to be sorted) | How are error states handled?   | Regulation Authority,<br>Maintainer,<br>Hardware Developer,<br>Security Expert,<br>Software Developer,<br>IV&V Engineer,<br>Safety Expert,<br>System Architect |                              |
| _repository (to be sorted) | What is the necessary performance for processing?   | Software Developer   |                              |
| _repository (to be sorted) | What is the necessary memory size for processing nodes and data storage?                              | Hardware Developer   |                              |

| Package                    | Concern  | Stakeholder  | Viewpoint |
|----------------------------|--|--|-----------|
| _repository (to be sorted) | What is the necessary accuracy and resolution for analog signal acquisition?   | Hardware Developer   |           |
| _repository (to be sorted) | Which functions need to be realized by HW?   | Hardware Developer   |           |
| _repository (to be sorted) | What is the allocated power consumption?   | Hardware Developer   |           |
| _repository (to be sorted) | What amount of memory resources of an HW item will be consumed by the allocated software?                                |  |           |
| _repository (to be sorted) | What shall be validated to the customer at system level?   | Acquirer,<br>Security Expert,<br>IV&V Engineer,<br>Safety Expert,<br>System Architect,<br>Customer |           |
| _repository (to be sorted) | How does the elements of the test environment interact with each other?  | IV&V Engineer,<br>System Architect   |           |
| _unclear_need_explanation  | Are defined standard items considered in the architecture?   | Acquirer   |           |
| _unclear_need_explanation  | What are the replaceable system components?  | Maintainer   |           |
| _unclear_need_explanation  | What are the system delivery standards?  | Project Manager  |           |
| _unclear_need_explanation  | What are the provided power inputs?  | Hardware Developer   |           |
| _unclear_need_explanation  | What are the algorithms to be implemented?   | Software Developer   |           |
| _unclear_need_explanation  | How to ensure full Operational Capability of the system after maintenance activities with a system element or component? | Maintainer   |           |

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| _unclear_need_explanation | How to install / de-install components to / from the system?  | Maintainer   |  |
| _unclear_need_explanation | What is the functional scope of each system delivery standard?  | Project Manager, System Architect                                    |  |
| _unclear_need_explanation | What delivery standards need to be provided?  | Hardware Developer   |  |
| _unclear_need_explanation | What is the order information for each identified system element or component?                              | Maintainer   |  |
| _unclear_need_explanation | What are the system delivery standards?   | System Architect   |  |
| _unclear_need_explanation | What is the scope of a delivery standard?   | Hardware Developer   |  |
| _unclear_need_explanation | What is the functional scope of each delivery standard?   |  |  |
| boundary / context        | Which requirements apply to a logical interface?  |  | Logical Internal Exchange Viewpoint                            |
| boundary / context        | Which information is exchanged between the system and external entitys?                                     | Acquirer, Security Expert, Safety Expert, System Architect, Customer | System Context Exchange Viewpoint                              |
| boundary / context        | What is the Operational Context to achieve an Operational Story?  |  | Operational Context Definition Viewpoint                       |
| boundary / context        | How is the system being used or utilized and interacting with other external systems to satisfy user needs? | Acquirer, User, Operator, System Architect, Customer                 | System UseCase Viewpoint, System Context Interaction Viewpoint |
| boundary / context        | How will the system be used by whom and which contextual elements are involved?                             |  | System UseCase Viewpoint                                       |

| Package            | Concern   | Stakeholder  | Viewpoint  |
|--------------------|---|--|--|
| boundary / context | How is the system interacting with the identified external entities?  |  | System Process Viewpoint, System Context Exchange Viewpoint                |
| boundary / context | What kind of information or what kind of items are exchanged between the system and external entities (incl. actors)? | Acquirer, Maintainer, Hardware Developer, Security Expert, Software Developer, Safety Expert, System Architect, Customer | System Context Exchange Viewpoint  |
| boundary / context | What are the different contexts the system is embedded and utilized in?   | Acquirer, System Architect, Customer   | System Context Definition Viewpoint  |
| boundary / context | How to connect the system or a system element to a test equipment?  | Maintainer   | Physical Context Exchange Viewpoint  |
| boundary / context | What are the functional interfaces of the system?   |  | System Process Viewpoint, System Context Exchange Viewpoint                |
| boundary / context | What are the external conceptual entities the system interacts with in the respective context?                        |  | System Context Exchange Viewpoint, System Context Definition Viewpoint     |
| boundary / context | What is the System Boundary definition?   | Acquirer, Supplier, System Architect, Customer   | Physical Context Definition Viewpoint, System Context Definition Viewpoint |
| boundary / context | Which interface partners does the system have?  |  | System Context Definition Viewpoint  |

| Package            | Concern   | Stakeholder   | Viewpoint  |
|--------------------|---|---|--|
| boundary / context | Which interfaces are necessary?   | Hardware Developer  | Logical Internal Exchange Viewpoint, Physical Context Exchange Viewpoint                                 |
| boundary / context | What kind of physical items (energy, material, information) are exchanged between the system and external entities? |   |  |
| boundary / context | Which requirement(s) apply to a physical interface?   |   |  |
| boundary / context | What are the items exchanged at the boundary of the system with external entities?                                  |   | System Context Interaction Viewpoint, System Context Exchange Viewpoint                                  |
| boundary / context | Which standards, protocols and format specifications are associated with a specific interface?                      |   |  |
| boundary / context | What are necessary enabling systems?  | Acquirer, Supplier, System Architect, Customer                | Physical Context Definition Viewpoint, System Context Definition Viewpoint, Physical Structure Viewpoint |
| boundary / context | What are the geographical and physical locations of the intended / proposed elements of the solution?               | Acquirer, Supplier, System Architect                          | System Context Definition Viewpoint  |
| boundary / context | What is the operational environment that an intended solution will need to support?                                 |   |  |
| boundary / context | What are the external physical entities the system interacts with in the respective context?                        | Acquirer, Supplier, Safety Expert, System Architect, Customer | Physical Context Definition Viewpoint, Physical Context Exchange Viewpoint                               |

| Package            | Concern  | Stakeholder                          | Viewpoint  |
|--------------------|--|--------------------------------------|--|
| boundary / context | What are the Interface Requirements imposed on the system?   |                                      | System Requirement Viewpoint, System Context Exchange Viewpoint    |
| boundary / context | What kind of test equipment is necessary to test the system elements?  | IV&V Engineer                        | Physical Context Definition Viewpoint                              |
| capability         | What are the Capabilities that are supported by the system?  | Acquirer, Supplier, System Architect | System Capability Viewpoint, System Functional Breakdown Viewpoint |
| capability         | How are Operational Capabilities allocated and flowed down to system entities - namely the subsystem - at various levels of abstraction? |                                      |  |
| capability         | What Operational Capabilities are required for each phase and mode of operation?   |                                      | Operational Capability Viewpoint                                   |
| capability         | What is the lack / deficiency / gap in current Capability implementation that is addressed with the intended solution?                   | Acquirer, Supplier, System Architect |  |
| exchange           | What are the protocols for exchanging items on an interface?   | Software Developer                   |  |
| exchange           | Which Interface Design Items are on an interface of a Physical Architecture Element?   |                                      |  |
| exchange           | Which interface partners does a HW item have?  |                                      |  |
| exchange           | What are the protocols used for exchanging information?  | Security Expert                      |  |

| Package  | Concern  | Stakeholder  | Viewpoint  |
|----------|--|--|--|
| exchange | What amount of interface bandwidth of the interfaces of an HW item will be consumed by the allocated software in the system? |  |  |
| exchange | What are the items exchanged between the logical system elements during the interaction?                                     |  | Logical Internal Exchange Viewpoint, Logical Interaction Viewpoint             |
| exchange | What are the Exchange Requirements imposed on the system?  |  | System Requirement Viewpoint   |
| exchange | What kind of information is exchanged and processed within the system?   | Security Expert  | Logical Interaction Viewpoint  |
| exchange | What are the interface requirements regarding bandwidth, data throughput and latency?  | Hardware Developer                                       | Physical Context Exchange Viewpoint  |
| exchange | What are the formats of the exchanged items?   | Software Developer                                       |  |
| exchange | What Operational Exchange the Operational Performers need to consume or provide?   |  | Operational Domain Item Kind Viewpoint, Operational Context Exchange Viewpoint |
| exchange | What are data / information items exchanged?   | Software Developer                                       | Logical Internal Exchange Viewpoint  |
| exchange | Which requirements apply to an HW interface?   |  |  |
| exchange | Which SW interfaces are necessary?   | Software Developer                                       | Physical Context Exchange Viewpoint  |
| exchange | What is the necessary accuracy and resolution for processing?  | Hardware Developer, Software Developer, System Architect |  |
| exchange | Which interface partners does a SW item have?  |  | Logical Internal Exchange Viewpoint  |



| Package    | Concern   | Stakeholder   | Viewpoint  |
|------------|---|---|--|
| functional | What is the breakdown of functions into sub-functions?  | System Architect  | System Functional Breakdown Viewpoint                                    |
| functional | What services are expected from external entities?  | Acquirer, Supplier, Project Manager, System Architect, Customer                       | System Process Viewpoint, System Function Black Box Allocation Viewpoint |
| functional | How are the sub-functions implementing associated requirements documented?                            |   |  |
| functional | How does a system function interact with its environment?   |   | System Process Viewpoint   |
| functional | What is the functional scope of the system?   |   | System Process Viewpoint   |
| functional | Which services will the system provide?   |   |  |
| functional | How are the system functions decomposed into sub-functions decomposed?                                |   | System Functional Breakdown Viewpoint                                    |
| functional | Which functions will the system provide?  | Acquirer, Security Expert, Project Manager, Safety Expert, System Architect, Customer | System Process Viewpoint, System Functional Breakdown Viewpoint          |
| functional | What Operational Process Activitys shall be executed during the execution of an Operational Story?    |   | Operational Process Viewpoint  |
| functional | Which Operational Activity shall be executed by which Operational Performer in the Operational Story? |   | Operational Process Viewpoint  |

| Package     | Concern  | Stakeholder  | Viewpoint                            |
|-------------|--|--|--------------------------------------|
| functional  | What are necessary inputs for operating the system expected to be provided by other external entities? | Acquirer,<br>Security Expert,<br>User, Supplier,<br>Operator,<br>System Architect,<br>Customer   | System Process Viewpoint             |
| functional  | Which functions are out of scope of the system?  |  | System Process Viewpoint             |
| functional  | How does a system function interact with its environment?  | Acquirer, User,<br>Operator,<br>Safety Expert,<br>System Architect,<br>Customer  |                                      |
| functional  | Which modes and states does the system have?   | Regulation Authority,<br>Maintainer,<br>Hardware Developer,<br>Security Expert,<br>Software Developer,<br>IV&V Engineer,<br>Safety Expert,<br>System Architect | System State Viewpoint               |
| functional  | How are the interactions and dependencies between the different identified sub-functions described?    |  |                                      |
| interaction | What is the sequence of interactions among the system and context elements                             | Hardware Developer,<br>Security Expert,<br>Software Developer,<br>IV&V Engineer,<br>Safety Expert,<br>System Architect   | System Context Interaction Viewpoint |

| Package     | Concern   | Stakeholder   | Viewpoint  |
|-------------|---|---|--|
| interaction | How do internal system elements interact with each other to provide the system function or service?   | Security Expert,<br>Safety Expert,<br>System Architect  | Logical Internal Exchange Viewpoint, Logical Interaction Viewpoint   |
| interaction | What possible threads of Operational Process Activities have to be carried out to achieve the Operational Story main and alternative goals? |   | Operational Interaction Viewpoint  |
| interaction | How does the system or a system element interact with the test environment?   | Hardware Developer,<br>Software Developer,<br>IV&V Engineer,<br>System Architect  | Physical Context Definition Viewpoint, Physical Context Exchange Viewpoint, Logical Interaction Viewpoint, System Context Interaction Viewpoint, System Context Exchange Viewpoint |
| interaction | What additional information the system or a system element needs to generate to enable testing?   | Regulation Authority,<br>Hardware Developer,<br>Security Expert,<br>Software Developer,<br>IV&V Engineer,<br>Safety Expert,<br>System Architect | Logical Internal Exchange Viewpoint, Logical Interaction Viewpoint, System Context Interaction Viewpoint   |

| Package   | Concern   | Stakeholder   | Viewpoint   |
|---|---|---|---|
| interaction   | What is the necessary response time for an interface or a service?  | Acquirer,<br>Hardware Developer,<br>Security Expert,<br>Software Developer,<br>User, IV&V Engineer,<br>Operator,<br>Safety Expert,<br>System Architect,<br>Customer | Logical Interaction Viewpoint, System Context Interaction Viewpoint |
| interaction   | What validation scenarios have to be carried out to check on the solution validity?   |   | Operational Interaction Viewpoint                                   |
| nonfunctional   | What are the Requirements of environmental conditions imposed on the system?  |   | Stakeholder Requirement Viewpoint, System Requirement Viewpoint     |
| nonfunctional   | What is the range of acceptable system performance, i.e. the critical, top-level Performance Requirements derived from the Operational Needs? |   | Stakeholder Requirement Viewpoint, System Requirement Viewpoint     |
| organization  | In which systems (Projects) is the HW item used?  |   |   |
| organization  | Which variants of a HW item need to be provided?  | Hardware Developer  |   |
| organization  | Which versions of a HW item exist?  |   |   |
| (are versions the same as variants ? or does it mean revisions ? clarification needed!) |   |   |   |

| Package   | Concern  | Stakeholder  | Viewpoint                                |
|---|--|--|--|
| organization  | What system elements are make-items, reuse items or COTS?  | System Architect   |  |
| organization  | What is the priority of each function?   | Acquirer   |  |
| organization  | What existing elements of the organization, enterprise, or operational entity need to be integrated in the intended solution?      | Acquirer, System Architect   |  |
| organization  | What are the normal and extreme environmental conditions for normal operation, for not operational, for storage and for transport? | Acquirer, Hardware Developer, Supplier, System Architect, Customer | Stakeholder Requirement Viewpoint        |
| organization  | What is the task executed by an organization, enterprise, or operational entity in the Operational Context?                        | System Architect   |  |
| organization  | What are the differences of the HW item in different projects  |  |  |
| (clarify, is this the same as the question for variants ? ) |  |  |  |
| organization  | What Performers or Resources are necessary to operate the intended solution?   | Acquirer, System Architect   | Operational Context Definition Viewpoint |
| organization  | What is the time schedule for delivering the functions?  | Acquirer   |  |
| organization  | What is the cost for each required function?   | Acquirer   |  |
| organization  | When do product functions or features become available?  | Project Manager  |  |

| Package      | Concern   | Stakeholder        | Viewpoint                       |
|--------------|---|--------------------|---------------------------------|
| organization | What is the configuration or version of each configuration item?  | System Architect   |                                 |
| organization | What are the relationships between the parties involved in the operation of the intended solution?                            |                    | Operational Performer Viewpoint |
| organization | What is the context of the organization, enterprise, or operational entity?   | System Architect   |                                 |
| organization | What parties of the organization, enterprise, or operational entity are needed to achieve an intended Operational Capability? |                    | Operational Performer Viewpoint |
| organization | Which development effort is associated with each individual element?  | Project Manager    |                                 |
| organization | Have the logical decomposition guidelines been followed?  | System Architect   |                                 |
| organization | What is the risk involved with each development item?   | Project Manager    |                                 |
| organization | Which functions/functional requirements are assigned to a HW item?  |                    |                                 |
| requirement  | What are the Non-Functional Requirements imposed on the system?   |                    | System Requirement Viewpoint    |
| requirement  | What has to be validated to the customer at system level?   |                    |                                 |
| requirement  | What is the necessary processing performance?   | Hardware Developer |                                 |
| requirement  | What are precision and accuracy requirements for processing of data items?  | Software Developer |                                 |

| Package              | Concern  | Stakeholder                     | Viewpoint                         |
|----------------------|--|---------------------------------|-----------------------------------|
| requirement          | What are the interface requirements regarding bandwidth, data throughput and latency?  | Software Developer              | System Requirement Viewpoint      |
| requirement          | What are the Functional Requirements imposed on the system?  |                                 | System Requirement Viewpoint      |
| requirement          | What is the priority of upper level requirements the HW item depends of?   |                                 |                                   |
| requirement          | What are precision and accuracy requirements for presentation of data items on an interface?   | Software Developer              |                                   |
| requirement          | What defines a valid solution towards the customer?  |                                 | Stakeholder Requirement Viewpoint |
| requirement          | What are the non-functional requirements applying to SW (e.g. with regard to SW quality, modularization, changeability or reuse)?  | Software Developer              |                                   |
| safety / reliability | Conduct safety audit on SITP, having traceability to safety analysis in SITP - SITP shows that level of rigor is derived from safety analysis - SITP allows review of safety relevant test actions |                                 |                                   |
| safety / reliability | How does criticality propagate down the system hierarchy?  | Safety Expert, System Architect |                                   |
| safety / reliability | What is the allocated reliability for a single function?   | Hardware Developer              |                                   |

| Package              | Concern   | Stakeholder   | Viewpoint |
|----------------------|---|---|-----------|
| safety / reliability | What are the contributors (SW and HW items contributing to a critical function) to a critical function?                               | Safety Expert                                       |           |
| safety / reliability | Reuse safety analysis on reuse of architecture elements, conduct analysis   |   |           |
| safety / reliability | Prove product safety to customer  |   |           |
| safety / reliability | What are the hazards of a system function in an identified situation (context + scenario)?  | Safety Expert                                       |           |
| safety / reliability | Full traceability of safety information over requirements, architecture into design artifacts. Supports "rechtssichere dokumentation" |   |           |
| safety / reliability | How are safety features verified?   | Safety Expert                                       |           |
| safety / reliability | Which upper level hazards can be caused by the HW item because of assigned functions?   |   |           |
| safety / reliability | What are the failure modes of a system function?  | Safety Expert                                       |           |
| safety / reliability | What are the planned architectural means for risk mitigation?   | Acquirer, Safety Expert, System Architect, Customer |           |
| safety / reliability | Are safety related design principles) followed e.g. segregation of monitors or independence or redundant elements?                    | IV&V Engineer, Safety Expert, System Architect      |           |
| safety / reliability | What are the inputs to a critical function?   | Safety Expert                                       |           |



| Package              | Concern  | Stakeholder  | Viewpoint |
|----------------------|--|--|-----------|
| safety / reliability | What are the reliability requirements of functions assigned to the HW items?   |  |           |
| safety / reliability | Who provides the inputs to a critical function?  | Acquirer,<br>Hardware Developer,<br>Software Developer,<br>IV&V Engineer,<br>Project Manager,<br>Safety Expert,<br>System Architect,<br>Customer |           |
| safety / reliability | Rechtssichere Dokumentation aufgrund Beweislastumkehr aus prodHaftG. und prodSG.   |  |           |
| safety / reliability | What is the allocated reliability for the complete item?   | Hardware Developer   |           |
| safety / reliability | Analyse architecture with safety in mind e.g.: isolate safety critical parts with the goal to reduce overall criticality |  |           |
| safety / reliability | How is a critical function decomposed and allocated?   | Safety Expert,<br>System Architect   |           |
| safety / reliability | What is the criticality (in terms of safety) of the HW item?   |  |           |
| safety / reliability | What is the possible harm in utilizing the system?   | Safety Expert  |           |

| Package              | Concern  | Stakeholder  | Viewpoint |
|----------------------|--|--|-----------|
| safety / reliability | Collect and maintain building blocks for safety analysis: opscon, typical hazards, typical harm scenarios, typical failure modes |  |           |
| safety / reliability | Conduct impact analysis on safety when architecture changes (clarify - also vice versa?)   |  |           |
| safety / reliability | What are the reliability requirements of functions assigned to SW that is allocated to the HW item?                              |  |           |
| security             | What are the domains of similar security levels in the system or the system participates in?                                     | Security Expert  |           |
| security             | Which protection means need to be provided for an interface?   | Hardware Developer   |           |
| security             | How is the interface between different domains protected?  | Security Expert  |           |
| security             | What is the flow of critical information and data through the system?  | IV&V Engineer,<br>Safety Expert,<br>System Architect   |           |
| security             | What are the encryption means used for an exchange?  | Hardware Developer,<br>Security Expert,<br>Software Developer,<br>Safety Expert,<br>System Architect |           |
| security             | What is the it security classification of data that will be communicated over the HW items interfaces?                           |  |           |

| Package     | Concern   | Stakeholder      | Viewpoint                            |
|-------------|---|------------------|--------------------------------------|
| security    | What are the confidentiality, integrity and availability levels for processed or exchanged information? | Security Expert  |                                      |
| security    | How to penetrate the system?  |                  |                                      |
| security    | How to identify and record security flaws and breaches of the system?                                   |                  |                                      |
| security    | What are the interfaces between different domains?  | Security Expert  |                                      |
| security    | What are the requirements for security relevant IT-equipment?   | Security Expert  |                                      |
| stakeholder | What are the consequences, if the Stakeholder's concerns are not considered?                            | System Architect |                                      |
| stakeholder | What are the consequences not considering a Stakeholder?  |                  | Stakeholder Identification Viewpoint |
| stakeholder | What relevant relations and influences exist between Stakeholders?                                      |                  | Stakeholder Identification Viewpoint |
| stakeholder | Which external entities (external systems, roles, environment, etc.) does a Stakeholder represent?      |                  | Stakeholder Identification Viewpoint |
| stakeholder | What are the requirements that a Stakeholder imposes to the system?                                     |                  | Stakeholder Requirement Viewpoint    |
| stakeholder | Which Stakeholder are relevant to the system and might impose requirements?                             | System Architect | Stakeholder Identification Viewpoint |
| stakeholder | What impact does a Stakeholder have on the project?   |                  | Stakeholder Identification Viewpoint |

| Package     | Concern  | Stakeholder                                | Viewpoint                            |
|-------------|--|--|--------------------------------------|
| stakeholder | Who are the Stakeholders involved in the intended solution?  | Acquirer,<br>Supplier,<br>System Architect | Stakeholder Identification Viewpoint |
| stakeholder | How to involve a Stakeholder and to what degree?   |  | Stakeholder Identification Viewpoint |
| stakeholder | In which life cycles is a Stakeholder involved in the project?   |  | Stakeholder Identification Viewpoint |
| stakeholder | What concerns does a Stakeholder have?   |  | Stakeholder Identification Viewpoint |
| story       | Which is the Operational Story task accomplished by which operational entities in the Operational Context? |  | Operational Story Viewpoint          |
| structure   | What are the configuration items in the physical architecture?   | System Architect                           | Physical Structure Viewpoint         |
| structure   | What are the HW components to be provided?   | Project Manager                            | Physical Structure Viewpoint         |
| structure   | What are the physical components?  | System Architect                           | Physical Structure Viewpoint         |
| structure   | What physical items are used building up the system?   | Security Expert                            | Physical Structure Viewpoint         |
| structure   | what is the decomposition hierarchy of the system/logical elements   |  | Physical Structure Viewpoint         |
| structure   | What is the physical breakdown of the system?  | System Architect                           | Physical Structure Viewpoint         |
| structure   | Which physical items the SOI is built of?  | Acquirer                                   | Physical Structure Viewpoint         |
| structure   | What is the allocated weight?  | Hardware Developer                         |                                      |

| Package                   | Concern   | Stakeholder  | Viewpoint                                 |
|---------------------------|---|--|---|
| structure                 | What is the allocated space?  | Hardware Developer   |   |
| structure                 | What are the SW components to be provided?  | Project Manager  | Physical Structure Viewpoint              |
| structure                 | What are the logical components the system is composed of?                                    |  | Logical Structure Viewpoint               |
| traceability / allocation | What amount of processing resources of an HW item will be consumed by the allocated software? |  |   |
| traceability / allocation | Which System Interface is addressed by a System Requirement?                                  |  | System Requirement Traceability Viewpoint |
| traceability / allocation | Which Stakeholder Requirements are addressed by a System Requirement?                         |  | System Requirement Traceability Viewpoint |
| traceability / allocation | What is the rational if requirements are not considered?                                      | Regulation Authority,<br>Security Expert,<br>Project Manager,<br>Safety Expert,<br>System Architect,<br>Customer |   |
| traceability / allocation | Which System Function is addressed by a System Requirement?                                   |  | System Requirement Traceability Viewpoint |
| traceability / allocation | Provide tabular overview of main SOV artefacts for checks on completeness and consistency.    |  |   |
| traceability / allocation | Which system function is addressed by system requirement?                                     | System Architect   |   |

| Package                   | Concern   | Stakeholder  | Viewpoint                                 |
|---------------------------|---|--|---|
| traceability / allocation | Which Stakeholder requirements are addressed by System requirements                             |  |   |
| traceability / allocation | What are the scenarios a system function is utilized in?  | Acquirer,<br>Security Expert,<br>User, Supplier,<br>Operator,<br>Safety Expert,<br>System Architect,<br>Customer |   |
| traceability / allocation | Which System function is addressed by System requirements?                                      |  |   |
| traceability / allocation | How are applicable requirements considered in the system architecture?                          | Regulation Authority,<br>System Architect  | Logical Structure Viewpoint               |
| traceability / allocation | What is the rationale for this System Requirement?  |  | System Requirement Traceability Viewpoint |
| traceability / allocation | Which logical system elements are involved in a interaction for the designated system function? |  |   |
| traceability / allocation | What is the allocation of functions to the physical architecture?                               | System Architect   |   |
| traceability / allocation | Which system functions are dependent on a systems mode or state?                                | System Architect   | System State Viewpoint                    |
| traceability / allocation | Which upper requirements, including Stakeholder Requirements does the HW item depend on?        |  |   |

| Package                   | Concern   | Stakeholder        | Viewpoint                                     |
|---------------------------|---|--------------------|---|
| traceability / allocation | Show in a concise manner the relationships from Operational Process to Operational Story and to Operational Performer.                              |                    | Operational Process Traceability Viewpoint    |
| traceability / allocation | Which interface data types depends a SW item of?  |                    |   |
| traceability / allocation | How do the logical system elements interact to fulfill the designated system function?  |                    | Logical Internal Exchange Viewpoint           |
| traceability / allocation | Which functions/functional requirements are assigned to a logical item?   |                    |   |
| traceability / allocation | Which functions and services need to be implemented in SW?  | Software Developer |   |
| traceability / allocation | Show in a concise manner the relationships from Operational Capability to Operational Story, to Operational Activity, and to Operational Performer. |                    | Operational Capability Traceability Viewpoint |
| traceability / allocation | Which upper requirements, including Stakeholder Requirements does the logical item depend on?   |                    |   |