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Customer Product Management

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Contents

1 Basic remarks

101. Since its introduction in 2012, the amended Customer Product Management process (CPM (amended)) has proven its worth. This revised version of the publication includes and specifies important findings and results from the Armaments Agenda. However, the internal logic of CPM (amended) remains largely the same.

102. The design of the basic procedure ensures that all conceivable aspects of a project are taken into account. However, only a few projects require consideration of all details. This is why different simplified procedures were already established in the past in the form of directives. They are characterised by the simplification, consolidation and omission of procedure elements that are not relevant to the particular project. It is an essential characteristic of this revision that these possible procedures, which are spread over several directives and regulations, have been included in this publication as an integral part in order to make it easier for users to choose an appropriate approach. The relevant procedures are described in such a way that they are self-contained and can be applied independently of one another.

103. In the “Armaments” (and, if applicable, “Operation”) planning category, the Bundeswehr procurement and in-service support management distinguishes between three options for satisfying demand:

- provision of material solutions and services in accordance with the Customer Product Management process (CPM),
- non-project procurement (Bundeswehr purchasing), and
- procurement and use of complex services.

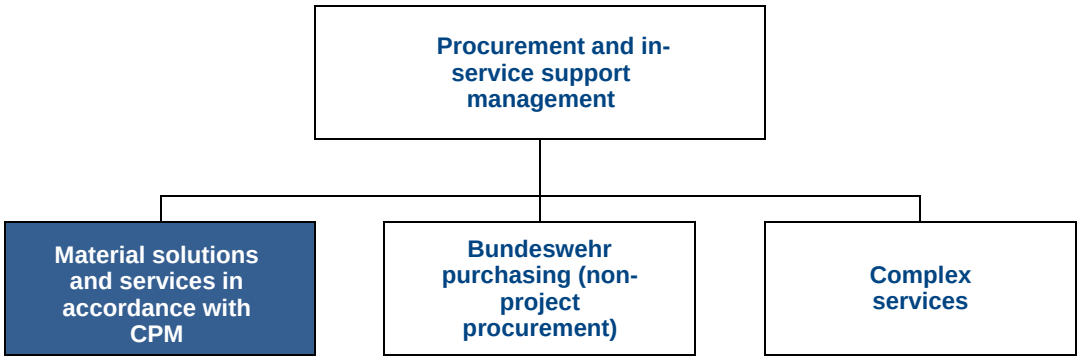

Fig. 1: Procurement options in procurement and in-service support management

104. This publication describes the implementation of projects in accordance with the CPM process. “Bundeswehr Purchasing” and “Complex Services” are subject to separate regulations. In order to present a comprehensive description of the processes, the realisation options via Bundeswehr Purchasing or Complex Services are considered, as well, when determining the realisation path.

105. CPM is the central standard for appropriate, timely and cost-effective procurement of operational products and product-specific services[1], and their effective and efficient use in the Armaments and, if applicable, Operation planning categories. In addition, CPM supports capability-oriented identification of demand. CPM serves the strategic objective[2] of providing the Bundeswehr with operational equipment required for mission accomplishment in a timely manner within the specified financial framework, and of keeping it operational[3]. In terms of processes, CPM is reflected in the performance process called “Provision of Material Solutions in accordance with CPM” in connection with “Executing Integrated Planning”.

106. Accurate allocation of tasks, clear-cut decision-making authority, distinct responsibilities, and clearly defined interfaces guarantee maximum confidence of action. For the systematisation and definition of standards for all parties involved in a project, quality gates[4] can be used in all phases of CPM. The procedural regulations thus facilitate high quality and efficiency when implementing armaments projects. At the same time, they can be applied with great flexibility.

1.1 Procedure

107. In accordance with CPM, material solutions and services are provided in the form of projects. In certain cases, these projects can be combined into programmes (see section “Programme management”). The aim is to realise products, services or IT services[5] in accordance with the service-oriented approach.

108. Armaments projects can differ markedly from one another in terms of their complexity and the resources available for their implementation. Project execution efforts and project complexity must be appropriately balanced. In order to comply with these framework conditions, CPM distinguishes between the following procedures[6]:

- basic procedure,
- procurement procedure for off-the-shelf IT products,
- simplified procedure for projects requiring funds up to EUR 500 000,
- procedure for meeting unforeseeable urgent operational requirements (fast-track initiative for operations), and
- procedure for multinational projects.

1 See Annex 8.1 “Terms and definitions” for a definition of the term “services”.
2 In accordance with the system of strategic objectives of the executive group of the Federal Ministry of Defence (FMoD).
3 This includes ensuring permanent and reliable usability of equipment throughout the entire life cycle.
4 See Annex 8.1 “Terms and definitions” for a definition of the term “quality gates”.
5 See Annex 8.1 “Terms and definitions” and K-10/2 “IT-Strategie des Geschäftsbereichs BMVg” (IT strategy for the area of responsibility of the FMoD).
6 These procedures apply mutatis mutandis to projects and measures of the SASPF programme strategy, taking into account the particularities determined therein, especially as regards demand identification and procurement.

109. Basic procedure: As a matter of principle, the basic procedure is applied to national projects. However, the other procedures can and should be used if the relevant conditions are met. The work and assessment steps contribute to laying the foundation for successful project execution, to considering relevant aspects of the projects, and to introducing only those products into the Bundeswehr that comply with existing legal and safety requirements (for example, occupational safety, environmental protection, and ergonomics). This is how work and assessment steps support risk reduction. If projects are less complex and defined by clear requirements, the basic procedure can be simplified.

110. Procurement procedure for off-the-shelf IT products: The IT sector is characterised by a high speed of innovation. If the operational profile is largely comparable to that for civilian areas, available products must be used when implementing IT projects. Minor adaptations in the form of customised configurations are possible. Adaptive or new developments, however, are not provided for. This is why requirements should be based on the solution. Since development and product improvement are inapplicable approaches, the only way is to describe a technical solution, which is summarised in the requirements part of the "capability gap and functional requirement including solution proposal" document (FFF incl. solution proposal) or the "technical architecture including solution proposal" document (TAF incl. solution proposal).

This procedure is applicable to groups of cases II and III (relationship to the Bundeswehr IT system)[7].

111. Simplified procedure for projects requiring funds up to EUR 500 000: Projects with a total project volume[8] of up to EUR 500 000 are usually not very complex. It is thus possible to limit efforts to budgetary requirements[9] and to omit the comprehensive preparation of CPM documents and performance of elaborate assessment steps. To this end, an extended statement of work which also reflects the budgetary needs must be prepared. In this way, realisation efforts for these projects can be significantly reduced.

112. Procedure for meeting unforeseeable urgent operational requirements (fast-track initiative for operations): In the event of unforeseeable urgent operational requirements, the focus is on providing solutions as quickly as possible. Simple solutions which may provide partial capabilities at an early stage must be preferred to sophisticated solutions with a long realisation period. At all times,

7 In accordance with Type A General Publication A-400/7 "Leistungsprozess 'Integrierte Planung durchführen'" ("Executing Integrated Planning" performance process). See Annex 8.1 "Terms and definitions" for a definition of the term "group of cases".

8 Investment costs of procurement, integration (if applicable) and establishment of operational maturity for the overall quantity or overall demand.

9 In accordance with Section 24(3) of the Federal Budget Code (BHO) in conjunction with the general administrative regulations to the Federal Budget Code (VV-BHO) regarding Section 24 (2.4): "The documentation must contain the following: a description of the item or an explanation of the project (including plans and sketches, if applicable), a schedule, a justification of the procurement or development, an estimate of costs and follow-on costs, and funding information."

fast-track initiatives for operations must be given top priority, even if this means that other projects are postponed and acceptable risks are involved.

113. Procedure for multinational projects: Armaments cooperation with partners is a political instrument for building confidence between nations and for strengthening and deepening bilateral and multilateral relations. It also helps to improve interoperability, which is a mandatory requirement in the Alliance. Increased cooperation in the multinational environment is FMoD executive group policy and must therefore be sought. Multinational projects contribute to strengthening the cooperation with allies and partner nations. At the same time, interoperability is increased by the consistent application of common standards or the use of identical products. In addition, multinational projects allow for sharing development, procurement and in-service use related work and costs between partners. The different framework conditions of multinational projects (specified in MoU[10] or other agreements), the resulting coordination requirements and the processes of multinational partners and international procurement organisations call for an individual project setup. This procedure specifies the framework conditions for the setup and implementation of corresponding projects.

1.2 Integrated planning

114. All projects start with the **planning portfolio measures** of the "Executing Integrated Planning" performance process[11].

In the "Executing Integrated Planning" performance process, an ongoing comprehensive comparison between the required (target) capability profile and the existing (actual) capability profile is conducted by the Bundeswehr Office for Defence Planning. This is done in subprocess 2 "Executing Strategic Planning" under the responsibility of the Director-General for Planning. The Bundeswehr Office for Defence Planning takes into consideration

- capability deltas derived from conceptual considerations or identified from the Bundeswehr capability situation (supported by rough assessments and project outlines), taking into account international obligations, for example within the framework of NATO[12] and the European Union (EU) ("top-down approach"),
- initiatives from major organisational elements/offices ("bottom-up approach"),
- initiatives that may result from, for example, new findings from innovation management, from defence research and technology (R&T), from nontechnical scientific support or from multinational cooperation (including international organisations) ("bottom-up approach"), and
- fast-track initiatives for operations, including unforeseeable urgent operational requirements (also "bottom-up approach").

[10] Memoranda of Understanding
[11] See A-400/7.
[12] **NATO** = *North Atlantic Treaty Organization*, also referred to as the North Atlantic Alliance.

115. For the functional modules of the Cyber/IT sub-portfolio, this comprehensive comparison is conducted under the responsibility of the Director-General for Cyber/Information Technology. To this end, the Cyber and Information Domain Service Headquarters performs the tasks of the Bundeswehr Office for Defence Planning described above and assists it in the context of overall planning.

This ongoing comparison results in planning portfolio measures for removing capability deltas.

1.2.1 Rough assessments and project outlines

116. If a capability delta is identified on the basis of the Bundeswehr capability situation, without a planning portfolio measure being available to remove it, the resulting requirement is determined by the Directorate-General for Planning or, where the Cyber/IT sub-portfolio is concerned, by the Directorate-General for Cyber/Information Technology (top-down approach). On the basis of a rough assessment across all planning categories, the Director-General for Planning or the Director-General for Cyber/Information Technology approves the new planning portfolio measure and commissions a project outline, if required. The purpose of such a project outline is to describe, in as much detail as possible, the intended adaptation, change or development of capabilities needed to remove a capability delta and (if possible) elaborate it by adding information about schedules and financial planning.

1.2.2 Initiatives

117. As an alternative to the basic “top-down approach”, planning portfolio measures can also be established from “bottom-up” initiatives[13]. In principle, initiatives can be submitted centrally at any time to the Bundeswehr Office for Defence Planning by the major organisational elements/offices.[14] The purpose of an initiative is to describe the intended adaptation, change or development of capabilities needed to remove a capability delta and (if possible) elaborate it by adding information about schedules and financial planning. This adaptation can involve changes in all planning categories and is thus not limited to materiel and equipment. After an initiative has been received by the Bundeswehr Office for Defence Planning, it is allocated to one of the **four groups of cases (I to IV)**[15].

118. Initiatives/fast-track initiatives for operations allocated to groups I and IV are assessed by the Bundeswehr Office for Defence Planning. The Cyber and Information Domain Service Headquarters is responsible for assessing initiatives/fast-track initiatives for operations allocated to group II and for informing the Bundeswehr Office for Defence Planning of the outcome. For the assessment, the Cyber

[13] The SASPF programme is an exception to this. Measures and projects forming part of the SASPF programme strategy do not require the preparation of initiatives. First of all, the SASPF programme strategy is to be regarded as an approved initiative and thus as an overarching requirements document for all projects and measures of the SASPF programme. Second of all, it constitutes a budgetary document for the operational aspects and the expenditures in the analysis phase of the projects, which must be used as a basis for including the programme in the medium-term (defence resources) planning.

[14] Fast-track initiatives for operations must be submitted to the Bundeswehr Joint Forces Operations Command.

[15] Initiatives are allocated to the groups of cases in accordance with A-400/7. The groups of cases reflect the relationship to the Bundeswehr IT system. See Annex 8.1 “Terms and definitions” for a definition of the groups of cases.

and Information Domain Service Headquarters draws on the expertise of the Bundeswehr Office for Defence Planning as needed. Initiatives/fast-track initiatives for operations allocated to group III are assessed by the Cyber and Information Domain Service Headquarters in coordination with the Bundeswehr Office for Defence Planning. Consideration is also given to the question as to whether certain capability gaps can be tolerated permanently or for limited periods of time. In this case, capability gaps are monitored but no concrete measures are taken.

119. If the capability is considered necessary, possible solutions for closing the identified capability gaps are analysed and documented in accordance with their priority in all planning categories and the multinational environment. Here again, a new planning portfolio measure and, if required, a project outline must be prepared on the basis of a rough assessment across all planning categories, and approved by the Director-General for Planning/the Director-General for Cyber/Information Technology or the Director-General of the Bundeswehr Office for Defence Planning/the Chief of the Cyber and Information Domain Service. If the initiative is approved, it is established as a new planning portfolio measure.

1.3 Technical and economic statement/Selecting a realisation path

120. If a material solution or a service qualifies for closing a capability gap (Armaments and, if applicable, Operation planning category), the Bundeswehr Office for Defence Planning or the Cyber and Information Domain Service Headquarters requests a technical and economic statement from the Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) for assessing the initiative/preparing the project outline.

121. In this statement, BAAINBw proposes a suitable solution for meeting the demand (CPM, Bundeswehr Purchasing or Complex Services) in order to close the capability gap. The possible realisation path can be determined by means of the flowchart in Figure 2. As a rule, a (simplified) realisation path should be used if the relevant conditions are met. Exceptions are permitted in justified cases. If implementation is supposed to be based on CPM, the statement must also contain a proposal for the procedure to be followed. Implementation within the framework of Bundeswehr Purchasing or existing Complex Services takes place in accordance with the relevant regulations.

122. The realisation path is determined as part of the approval of the initiative or the project outline. If, at a later point in time, it becomes necessary to change the realisation path, this issue must be treated in the same way as a disruption in the course of a project (see section 7.6).

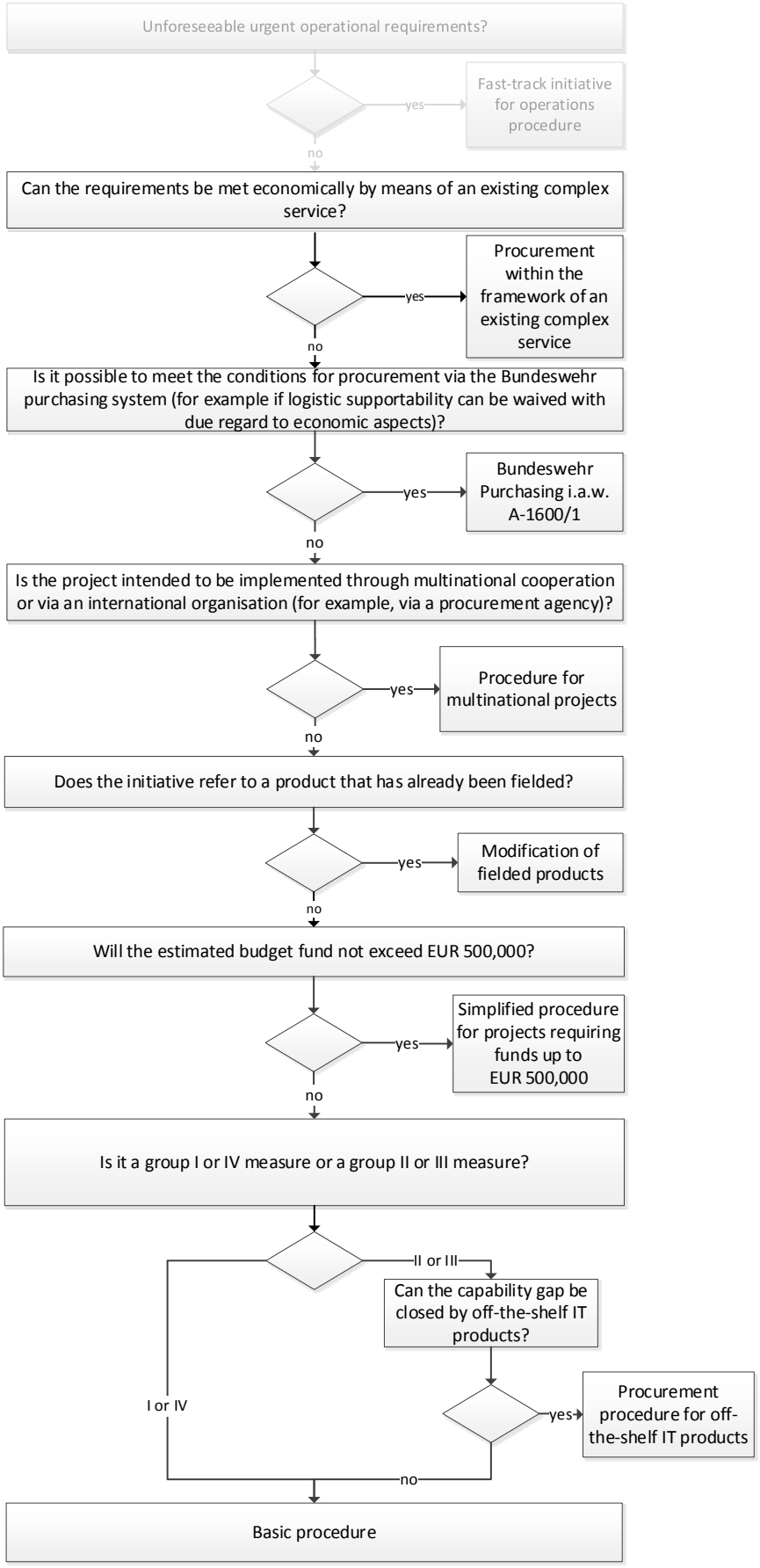

Fig. 2: Flowchart – Selecting a possible realisation path

2 Basic procedure

201. The basic CPM procedure is divided into three phases:

- analysis phase (part 1 and part 2),
- realisation phase, and
- phase of in-service use.

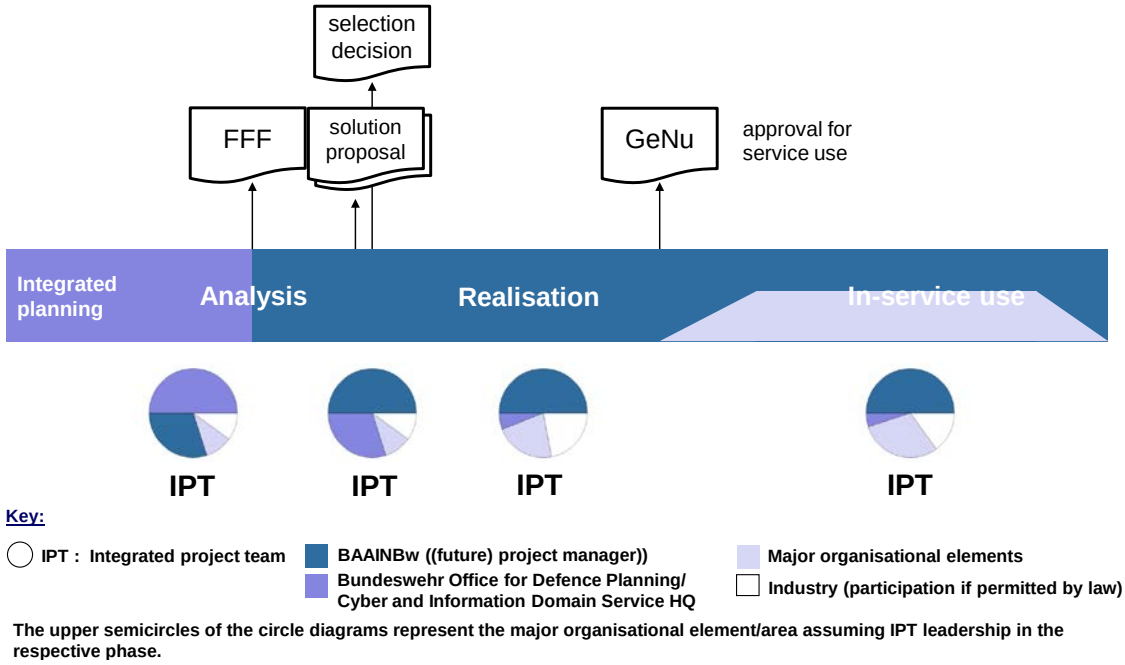

Fig. 3: Sequence of the basic procedure

2.1 Analysis phase

202. The “Executing Integrated Planning” performance process aims at controlling capability development on the overall planning level and at removing identified capability deltas by commissioning requirements documents.

The analysis phase is divided into two parts and starts with the commissioning of the “capability gap and functional requirement” document (FFF) after the approval of a planning portfolio measure as part of integrated planning.

203. The objective of the first part of the analysis phase is to describe and document the capability gap by means of functional requirements. In part 1 of the analysis phase, the integrated project team (IPT) prepares the FFF under the direction of the Bundeswehr Office for Defence Planning or the Cyber and Information Domain Service Headquarters.

204. The objective of the second part of the analysis phase is to develop and assess, on the basis of the FFF, solution proposals (if necessary, with graduated fulfilment of the functional requirement) for closing the identified capability gap with respect to realisation, in-service use, life cycle costs (LCC), supportability and risks, taking into account the principles of efficiency and economy. To this end,

BAAINBw takes over the lead of the IPT. The solution proposals are submitted to the Chief of Defence for decision[16]. The decision of the Chief of Defence is laid down in the selection decision document.

2.1.1 Tasks in part 1 of the analysis phase

205. If a material solution (including services as defined in this publication) qualifies for implementing a planning portfolio measure and thus for closing a capability gap (Armaments and, if applicable, Operation planning category), the Directorate-General for Planning, for category[17] A and B projects of groups[18] I and IV, tasks the Bundeswehr Office for Defence Planning with establishing an IPT under its direction or to employ an existing IPT. For groups II and III, the Directorate-General for Cyber/Information Technology tasks the Cyber and Information Domain Service Headquarters accordingly. For measures of category C and D projects, the Bundeswehr Office for Defence Planning or the Cyber and Information Domain Service Headquarters establishes an IPT on its own. The IPT formulates functional requirements in close cooperation with the Bundeswehr Office for Defence Planning/the Cyber and Information Domain Service Headquarters, BAAINBw and the future users/operators. BAAINBw is represented in the IPT by the future project manager. In this way, consistent processing and project-specific transfer of knowledge are ensured, in particular when transitioning from part 1 to part 2 of the analysis phase.

206. BAAINBw brings its technical and economic know-how to the IPT, which includes the use of research facilities and Bundeswehr technical centres. If required and justifiable in terms of legal (contracting) provisions, BAAINBw will usually involve appropriate technical experts from trade and industry and, in particular, from in-house companies at this early phase. These technical experts are involved in accordance with the provisions of Type A General Publication A-2190/2 “Beteiligung der Industrie in Integrierten Projektteams in den verschiedenen Phasen des novellierten Customer Product Management” (industry involvement in integrated project teams in the different phases of the (amended) Customer Product Management process). In order to include specialist competence, authorised representatives of the future users/operators also participate in the IPT.

Depending on the project, further stakeholders of the Bundeswehr are involved in addition. If a project, a development or procurement item, or an aspect of its future use is classified “VS-VERTRAULICH” (CONFIDENTIAL) or higher (including equivalent classifications), the Federal Office of Military Counter-Intelligence must always be involved in matters related to personnel and physical security measures. In addition, the Federal Office of Military Counter-Intelligence may be asked for advice if

[16] Deviating from this provision, solution proposals for category C and D projects must be submitted to the Director-General of the Bundeswehr Office for Defence Planning (group I or IV) or to the Chief of the Cyber and Information Domain Service (group II) or to both (group III). See also section 7.3.1 “Signature of CPM documents”.

[17] For project categorisation, see chapter 7.1 “Project categories” in conjunction with Type B General Publication B-1500/7 “Projektkategorisierung im Customer Product Management (novelliert)” (project categorisation in the (amended) Customer Product Management process).

[18] In accordance with A-400/7. See Annex 8.1 “Terms and definitions” for a definition of the term “group of cases”.

projects have a lower security classification (for instance, when developing the “military security” project element, see section 7.7.9).

207. In order to formulate the FFF, the integrated project team examines and evaluates all framework conditions and requirements for closing capability gaps, taking into particular consideration:

- lessons learned and experiences from in-service use and operations (including missions, for example on the basis of the Bundeswehr mission review),
- lessons learned by allies and partners,
- information on products, IT services and services that are in use, commercially available or currently in development, in particular commercial, governmental, and military off-the-shelf (CGM)[19] products and services,
- lessons learned and findings from the field of standardisation,
- lessons learned from international armaments cooperation,
- lessons learned and findings from defence research and technology,
- lessons learned and findings from nontechnical scientific support projects, such as nontechnical research and study work (concept development & experimentation (CD&E) or operations research (OR)[20]),
- lessons learned from service inventions, continuous improvement programme proposals, and patents held by the Federal Government,
- lessons learned from innovation management[21], and
- lessons learned from multinational capability development measures and projects.

2.1.2 Capability gap and functional requirement

208. The result of the work in the first part of the analysis phase is the capability gap and functional requirement document (FFF). In addition to the capability gap, it describes the functional requirements and other guidelines for developing solution proposals, and also specifies the capability-specific demand. It includes at least the following information:

- the designation of the required capability;
- a deduction of the capability from the Bundeswehr capability profile and a short description of the capability delta within the system context of the Bundeswehr;
- a presentation of the capability requirement in the form of a prioritised requirements catalogue using the software introduced for requirements engineering;
- the operational architecture at project level;

[19] Products that are available on the open market, for government agencies or the military.
[20] See also Type A General Publication A-450/1 “Wissenschaftliche Unterstützung Nicht-technisch” (nontechnical scientific support).
[21] See A-400/7.

- for group II to IV projects: the system architecture of at least those IT components of the system to be realised that have a relationship to the Bundeswehr IT system, the list of service requirements, and the list of already existing and usable services;
- the integration into the programme and portfolio management (capabilities level);
- remarks about foreseeable relationships to existing projects (projects/products/services level);
- the possibility or intention to set up an international cooperation, and integration into multinational planning;
- a supplemented description of the functional requirement with the related target service use profile on the basis of the project elements;
- information about the demand, the required service life, the regeneration cycle (including possible deviations), and the future users/operators (thus specifying which major organisational elements/areas have in-service and supply responsibility for the maintenance of operational capability and readiness);
- requirements concerning the availability of the capability,
- an estimation of the time and cost frame for the entire life cycle, including constraints (if any), for example from an overall planning perspective. The estimated cost must be structured in accordance with Type A General Publication A-1510/1 “Lebenswegkostenmanagement in der Bundeswehr über alle CPM-Phasen – Life Cycle Cost Management (LCCM)” (Bundeswehr Life Cycle Cost Management (LCCM) across all CPM phases). It must at least comprise the following four project elements: technical and economic elements, personnel/training, logistics, and infrastructure;
- budget funds required for part 2 of the analysis phase for evaluating approaches and developing solution proposals, including a description and schedule of the financially relevant measures[22];
- risk assessment for the subsequent phases to ensure continuous inclusion of identified risks in the standardised risk management in accordance with Type A General Publication A-1500/30 “Risikomanagement und Risikoberichtswesen Ausrüstung” (risk management and risk reporting for equipment);
- statements on the need for personnel and physical security measures in close cooperation with the Federal Office of Military Counter-Intelligence;

[22] The capability gap and functional requirement document (FFF) is a budgetary document for the provision of funds (also for stage 3 R&T in accordance with Type A General Publication A-2711/1 VS-NfD (RESTRICTED) “Wehrtechnische Forschung und Technologie” (defence research and technology)) in the second part of the analysis phase. The budget officer must be involved when preparing the capability gap and functional requirement document, and he co-signs the final version. FMoD A I 5 (Finance and Budget Management) is responsible for category A and B projects with respect to R&T funds and, in addition, with respect to funds for development and/or military procurement, provided that these funds have already been estimated in the budget or have been included in the budget planning. The BAAINBw budget officer has the same responsibilities with regard to category C and D projects.

- information on whether “essential national security interests” in accordance with Art. 346 of the Treaty on the Functioning of the European Union (TFEU) could be affected (for example, key technologies).

209. The FFF is designed to facilitate the development of solution proposals on the basis of commercially available products, already developed components, or components currently in development. It must not predetermine technical solutions.

The FFF must include a statement by the future project manager on the suitability of the FFF with regard to the further processing within CPM, taking into account the following aspects:

- the budget funds required for part 2 of the analysis phase,
- the completeness of information (for example, target service use profile), and
- the time scheduled for part 2 of the analysis phase and the realisation phase.

The prioritised requirements catalogue is explicitly not included in this statement.

210. The Director-General for Planning (groups I and IV) or the Director-General for Cyber/Information Technology (groups II and III) submits the FFF for category A and B projects to the Chief of Defence for approval. They are then forwarded to BAAINBw via the Director-General for Equipment or the Director-General for Cyber/IT. FFF of category C and D projects are approved by the Director-General of the Bundeswehr Office for Defence Planning (groups I and IV) or by the Chief of the Cyber and Information Domain Service (group II) or by both (group III). They are then forwarded directly to BAAINBw. The FMoD branch exercising functional supervision must be involved.

211. If requirements arise after completion of part 1 of the analysis phase that are based on lessons learned from operations, for example, and have to be taken into account in the further course of the project, a “capability gap and functional requirement change document” (FFF change document) must be developed. The tasks, responsibilities and involvements in the preparation, staffing, and signing/approval of an FFF change document arise from the specifications for the basic FFF.

2.1.3 Tasks in part 2 of the analysis phase

212. The approval of the FFF marks the start of procurement and in-service support management. Responsibility is transferred from the Chief of Defence to the Director-General for Equipment. The Director-General for Cyber/Information Technology takes over functional supervision of group II and III projects. At the subordinate level, BAAINBw takes on the lead of the IPT and develops solution proposals on the basis of the FFF. In this context, the Director-General of BAAINBw appoints the future project manager as project manager and establishes a project team. The project manager prepares the project handbook, which serves as a source of information and a guideline for all parties involved in the project. It compiles project-relevant information and regulations and thus elaborates on the general rules of the project management handbook. The project manager is responsible for providing future

users/operators with suitable and operational products and services in a timely manner within the specified financial framework. He or she is also responsible for maintaining or restoring operational maturity during in-service use.

213. The project manager takes on the lead of the IPT and proceeds on the basis of the approved FFF. To this end, he or she establishes project management[23] that includes risk management in accordance with A-1500/30. The project manager ensures that the expertise of potential users/operators (via authorised representatives) as well as of other competent specialist authorities continues to be incorporated into the work of the IPT. If required and justifiable in terms of legal (contracting) provisions, BAAINBw will usually involve appropriate technical experts from trade and industry and, in particular, from in-house companies. These experts are involved in accordance with the provisions of A-2190/2.

214. Together with the IPT, the project manager converts the functional requirements into technical/functional performance targets which are then used to develop several solution proposals. Here, the following approaches are possible:

- fielding of available products (for example, CGM) and use of services,
- improvement of products and services already in use (product improvement), and
- realisation of new products (for example through development).

215. Unless other specifications have been made, the project manager decides, in consultation with the IPT, on the type and number of solution proposals (including the number of solution proposals for one approach in order to represent the different degrees of fulfilment of the FFF requirement or in order to make a distinction between buying, hiring or leasing). In exceptional cases, the approaches to be considered and the number of solution proposals to be prepared can be specified by the FMoD in its supervisory capacity when tasking the preparation of the solution proposals. If certain approaches are discarded, this must be justified when submitting the solution proposals, in particular with regard to the principle of economic efficiency. At least one of the solution proposals must lie within the medium-term planning in terms of earmarked resources documented in the FFF.

216. When solution proposals are being developed, the following tasks may arise and may, if necessary, be supported by supplementary analyses and studies (for example by way of R&T or nontechnical scientific support[24] methods):

- market surveys and assessments of available products and services,
- checking and assessing the potential for improvement of fielded products,

[23] Project management includes effective and flexible project controlling.
[24] Concept development and experimentation (CD&E), modelling and simulation (M&S), operations research (OR), architecture and nontechnical studies in accordance with A-450/1.

- checking and assessing possibilities for implementing new products (for example, conduct of patent searches),
- checking and assessing possible (national/international) cooperation measures,
- checking and assessing possibilities for closing the capability gab through public-private partnerships (PPP),
- ensuring that no products are introduced into the Bundeswehr that are or will be inadmissible under existing or expected German legislation or international agreements. This includes, in particular, a review in accordance with Type A General Publication A-2146/1, “Prüfung neuer Waffen, Mittel und Methoden der Kriegführung” (review of new weapons, means and methods of warfare),
- indicating if approval requirements can be fulfilled and preparing an approval strategy (especially for aircraft and products subject to aviation law),
- giving consideration to and applying current standards,
- controlling and monitoring the preparation and development of all required product-specific concepts (for example, project-related logistic concept, operational concept, training concept, and information security concept),
- updating the operational architecture at project level,
- for group II to IV projects: developing a project-specific contribution to the system architecture,
- assessing the solution proposals (including all project elements) in the context of system architecture, in particular technical and economic, defence industry, and technical/logistic relationships to planned projects, projects in the realisation stage, or already available products and services,
- complying with product and project specifications laid down in the IT outline concept of the Federal Government,
- determining quantities,
- planning in detail the realisation phase and the phase of in-service use across all project elements[25], taking into account the required rights of use or licences and, if applicable, proposing a batch approach or gradual fielding,

[25] If infrastructure measures are required (“Infrastructure” project element), the Federal Office of Bundeswehr Infrastructure, Environmental Protection and Services must be involved at an early stage irrespective of the realisation procedure. Since infrastructure planning can only start after preparation of the selection decision document, which justifies the demand itself and the budget funds to be used, the Infrastructure project element may have a significant influence on the duration of the realisation phase. In this case, the preparation of a reliable schedule depends on the required infrastructure realisation period. On 31 August 2016, the interfaces to the infrastructure requirement satisfaction process were established between the Federal Office of Bundeswehr Infrastructure, Environmental Protection and Services and the Bundeswehr Office for Defence Planning in the document “Definition und Festlegung der Übergabepunkte und -produkte im Rahmen der Umsetzung des Integrierten Planungsprozesses” (definition and determination of handover points and products as part of the implementation of the integrated planning process).

- describing/planning in detail the entire scope of the project (including those parts that are to be implemented at a later date or as part of other projects), allocating it to a programme and considering potential relationships to other projects of that programme,
- estimating the resources required for integrated compliance demonstration (including operational suitability tests),
- estimating technical logistic support services with regard to type and scope,
- performing risk management in accordance with A-1500/30,
- giving consideration to obsolescence management and avoiding early obsolescence,
- performing a suitable economic efficiency analysis, involving the appropriate budget officer, if necessary,
- predicting the time required for realisation,
- predicting the life cycle costs in accordance with A-1510/1 using appropriate analysis, prediction and simulation methods (for example logistic support analysis or life cycle management[26]),
- identifying the required budget funds for the solution proposals across all areas of expenditure and incorporating them into the financial requirements analysis or the budget plan,
- assessing the degree to which the functional requirements in the FFF have been fulfilled in terms of quality and quantity on the basis of the prioritised requirements catalogue and assessing the impact on the specified intended purpose,
- deducing technical (key) performance requirements for the statement of work,
- for group II to IV projects: developing a service solution outline to describe the design of an IT service or a set of bundled IT services (for example, IT service module or IT services package),
- checking and assessing ammunition and firing safety measures, and
- obtaining ministerial confirmation of the affected essential national security interests in accordance with Art. 346 of the Treaty on the Functioning of the European Union (TFEU).

217. Possible solutions must be analysed and assessed in terms of performance, time, costs and risks. Appropriate tasks can be assigned in this context (for example, to build a prototype for demonstrating the feasibility of technological/technical performance parameters), possibly as part of R&T or nontechnical scientific support methods.[27] Studies must be carried out under realistic conditions. Findings from engineering evaluations of foreign defence materiel must be incorporated. Compliance with the limits imposed by (contracting) law (for example, product and manufacturer neutrality) must be ensured by involving legal experts. In individual cases, it may be necessary or reasonable to deviate from the principle of product and manufacturer neutrality when preparing solution proposals. This decision is made by the appropriate project sponsor[28] at the suggestion of the project manager. The suggestion must include a confirmation that the planned approach is in conformity with contracting law.

[26] See Annex 8.1 “Terms and definitions”.
[27] Financially relevant commissions must be justified in advance in the FFF in terms of budget.
[28] See Annex 8.1 “Terms and definitions”.

218. If projects are particularly complex and the project manager objectively requires external support to convert the functional requirements into technical/functional performance targets, which can then be used as a basis for developing solution proposals, a competitive dialogue procedure or an innovation partnership[29] can be considered. For examining legal requirements, the Legal Affairs Staff at BAAINBw must be involved. A competitive dialogue must be conducted in accordance with the "Leitfaden zum Wettbewerblichen Dialog" (competitive dialogue guideline) (BAAINBw Deputy Director-General (civilian) – Ref. 76-03-00 of 15 October 2015) and must be approved by the Director-General for Equipment/the Director-General for Cyber/IT in coordination with the Director-General for Planning before it is initiated.

219. Where reasonably possible, the future project manager can initiate the preparation of the solution proposals already prior to the approval of the FFF in order to speed up the process, provided that no financial commitments are entered into and IPT responsibilities are recognised (concurrent development of FFF and solution proposals).

If, in part 1 of the analysis phase, the future project manager determines in coordination with the IPT that the requirements can be realised by means of a commercially available solution, he or she will immediately initiate the concurrent development of a solution proposal. In this case, both documents must be submitted for approval at the same time.

2.1.4 Solution proposals

220. Capability gaps can be gradually closed in order to reduce realisation risks or to make available (partial) capabilities at an early date, which can then be supplemented step by step until the full capability is reached (based on the functional requirement of the FFF), giving due consideration to the principles of efficiency and economy. To this end, parts of a project (after the entire project has been planned in full detail) are implemented individually, at staggered intervals, or at the same time. The overall system of the solution must be described. Individual parts must be suitable for their intended purpose and must themselves be operational. The division of a project into individual parts may be made on the basis of performance, quantities or selected users/operators.

221. The developed solution proposals include statements on:

- the nature of the solution proposal and the demand (quantities/licences),
- the fulfilment of requirements in terms of quality and quantity,
- the probability of meeting approval requirements and the approval strategy,
- the time required for realisation,

[29] The innovation partnership is a procedure for developing innovative supplies, works or services which are not yet available on the market and for acquisition of the services that result therefrom. After a call for competition, the public contracting authority negotiates in several phases with the selected companies on the initial and subsequent tenders. (Source: Act against Restraints of Competition (GWB), § 119, paragraph 7)

- the in-service use (see project elements, for example logistics, personnel/training, and infrastructure measures),
- the date of planned regenerations,
- the predicted life cycle costs for realisation, planned regenerations and in-service use, shown separately according to the required budget funds,
- the quality assurance requirements,
- the economic efficiency with due regard to life cycle costs,
- the risk management (including all project elements) in the form of a standardised presentation of early-warning indicators and risks already identified for the relevant solution proposal,
- the planned service life,
- the target service use profile,
- the results from stage 1 and 2 R&T projects or from the application of nontechnical scientific support methods, if available,
- the latest date for the decision on a potential follow-on procurement to be able to replace the fielded products when the end of their service life has been reached, and
- the essential national security interests that have been confirmed at ministerial level, in particular key defence technologies.

222. The provision of hospital/institute-specific medical materiel is similar to fast-track initiatives for operations, in particular with respect to priority processing. For this reason, solution proposals are developed, and further work steps are taken, along the lines of the implementation of the capability gap and functional requirement document (fast-track initiative) (FFF(S))[30].

In addition, the framework conditions described in section 2.3.6 apply to the regeneration of hospital/institute-specific medical materiel in the phase of in-service use.

2.1.5 Submission of solution proposals/Making a selection decision

223. Solution proposals developed for category A and B projects are submitted by BAAINBw to the branch of the Directorate-General for Equipment exercising functional supervision (groups I and IV) or to the Directorate-General for Cyber/IT (groups II and III).

For the solution proposals, the Director-General for Equipment or the Director-General for Cyber/IT seeks a statement

- from the Directorate-General for Planning on whether the solution proposal can be specifically included in the medium-term planning, financial planning and planning implementation, and
- from the Directorate-General for Budget and Controlling on a budget estimate and inclusion in the financial plan.

[30] This implies limitations on solution proposals and priority processing.

The Directorate-General for Equipment is in charge of assessing the solution proposals in terms of their importance for defence industry and armaments policy, involving the Directorate-General for Cyber/IT for the Cyber/IT sub-portfolio. After approval by the Director-General for Equipment/the Director-General for Cyber/IT, the branch of the Directorate-General for Equipment/the Directorate-General for Cyber/IT exercising functional supervision submits the solution proposals, including the statements prepared by the Directorate-General for Planning and the Directorate-General for Budget and Controlling, to the Directorate-General for Planning for final assessment from an overall planning perspective. The Directorate-General for Planning submits the solution proposals to the Chief of Defence so that he or she can make a selection decision, involving the Directorate-General for Equipment/the Directorate-General for Cyber/IT.

224. The Chief of Defence selects one solution proposal. Once the decision by the Chief of Defence has been taken and documented, the selected solution proposal turns into a selection decision document. At that point, the Chief of Defence may specify additional realisation targets as part of his or her overall planning responsibility. Deviations from these targets must be treated as disruptions in the course of the project in accordance with section 7.6 “Treatment of disruptions in the course of a project”.

225. Solution proposals developed for category C and D projects are submitted by BAAINBw to the Bundeswehr Office for Defence Planning (groups I and IV) or to the Cyber and Information Domain Service Headquarters (groups II and III). The Director-General of the Bundeswehr Office for Defence Planning makes the selection decision for groups I and IV. The Chief of the Cyber and Information Domain Service is responsible for group II. Selection decisions in group III are made jointly by the Chief of the Cyber and Information Domain Service and the Director-General of the Bundeswehr Office for Defence Planning. The selection decision document is the budgetary document for all measures during the realisation phase and for the detailed planning[31] of regeneration measures.

226. If, after completion of the analysis phase, the constraints of a project change to such a degree that the selection decision document must be amended[32], the “supplementary solution proposal” template must be used. A supplementary solution proposal is commissioned by the project sponsor. The tasks, responsibilities and involvements in the preparation, staffing, and signing/approval of a supplementary solution proposal or selection decision amendment document arise from the specifications for the solution proposal or selection decision document.

227. The selection decision marks the end of the analysis phase.

[31] Detailed planning involves the specification of scope, time and costs.
[32] For example, if costs increase by more than 15 %.

2.2 Realisation phase

228. Once the selection decision has been taken, the Director-General of BAAINBw assumes materiel responsibility for operational maturity. During the realisation phase, BAAINBw focuses on establishing operational maturity and on preparing the phase of in-service use.

The objective of the realisation phase is to provide users/operators with suitable and operational products and services in a timely manner within the specified financial framework.

229. In order to ensure the unimpeded, swift, and independent implementation of a project, interventions in the project are generally not intended during the realisation phase.
If, nevertheless, changes/interventions become necessary, the procedure specified in section 7.6 “Treatment of disruptions in the course of a project” must be followed.

2.2.1 Tasks in the realisation phase

230. The project manager takes appropriate measures to ensure the implementation of a project within the specified performance, time and cost framework. Actions must be guided by the principles of efficiency and economy. During the realisation phase, the IPT must consider knowledge gained and lessons learned from in-service use.

The main tasks of the project manager include

- planning, controlling (including change request management) and monitoring the realisation process, including all project elements involved,
- updating requirements using the data processing procedure introduced for requirements engineering,
- controlling and monitoring the development and finalisation of all required product-specific concepts (for example, project-related logistic concept, operational concept, training concept, and information security concept),
- controlling, monitoring and documenting project-related costs with the objective of minimising life cycle costs, taking into account the product-based target service use profile specified in the selection decision document;
- updating the project-related risk management in accordance with the provisions of A-1500/30 (taking into account all project elements involved),
- controlling the preparation, conclusion and administration of contracts (BAAINBw is the single point of contact for contractors),
- controlling national and international agreements,
- preparing/updating a statement to be used as a basis for implementation of plans (requirements update, planning proposal, financial requirements analysis, and resource plan),
- preparing and presenting programme sheet contributions for the annual programme negotiations,

- controlling and monitoring the flow of project-related funds,
- representing the project during reviews,
- managing documentation on decisions and updating project data in CPM IT support systems,
- controlling and monitoring integrated compliance demonstration,
- preparing the approval for service use,
- for group II to IV projects: updating the information security concept, including submission to the German military Security Accreditation Authority for IT systems (DEUmilSAA) for staffing, and, if required, requesting accreditation by DEUmilSAA,
- representing the project externally,
- assisting in the preparation of reports for the committees of the German Bundestag, the Federal Audit Office, and other institutions,
- developing and submitting supplementary solution proposals to the selection decision amendment document, if required,
- preparing contributions to portfolio management,
- implementing the approval strategy in coordination with the competent approval authority,
- for group II to IV projects: ensuring adequate and standard-compliant documentation of the implemented service(s) in the form of a service implementation record and a service deployment concept as well as ensuring the finalisation of the relevant service data sheet, and
- updating the system architecture.

231. If the project is part of a programme, specific tasks of the project manager may be transferred to the BAAINBw programme manager, in compliance with the tasks, competencies and responsibilities principle.[33] This does not affect the project manager's overall responsibility for his or her project.

232. The project manager uses the expertise of the IPT. Measures concerning project elements in the area of future users/operators are planned, controlled and monitored by the project manager in consultation with the IPT. Authorised representatives of the future users/operators in the IPT are responsible for implementing these measures in the major organisational elements concerned.

The project manager documents the results of the realisation phase and ensures that all participants are kept informed. Related areas must be included in the decision-making process. They provide assistance in coordination with the project manager. User know-how is contributed by the authorised representatives of the future users/operators in the IPT.

233. The Directorate-General for Forces Policy and the Directorate-General for Strategy and Operations have continuous access to project-related reporting and are entitled, on a case-by-case basis, to request information about the projects. They can thus gather information about the effects on capability development and operational availability in a timely manner.

[33] See also section 7.5 "Programme management".

234. The mutual data exchange by means of the different situations (capability situation, equipment situation and, if applicable, operational readiness situation) ensures close cooperation between provider and user. In this way, lessons learned in the realisation phase become part of the “Executing Integrated Planning” performance process.

235. During the realisation phase, the tasks at ministerial level (Directorate-General for Equipment and Directorate-General for Cyber/IT) primarily involve exercising functional supervision, in particular tracking objectives of armaments projects and finalising BAAINBw documents to be submitted to the executive group of the Federal Ministry of Defence and to Parliament.

2.2.2 Contract award

236. In order to implement the selection decision, BAAINBw conducts the award procedure and awards the contract.

During preparations for contract award, the following must be specified in the draft contract: suitable project control instruments, quality assurance requirements (including contractor quality assurance requirements and, if applicable, Government Quality Assurance measures), approval process or accreditation requirements, risk management provisions as well as performance and costs milestones (also as a basis for government project management). The above-mentioned requirements and principles must be specified already prior to the invitation to tender.

237. In addition to the performance obligations to be met by the contractor, contract award documents must also comprise well-defined criteria for verifying compliance with the contract and legal requirements as well as any necessary support services for government tests. These tests must be described as precisely as possible at the time of contract conclusion. This applies to the execution of, and the criteria for, compliance tests[34] and declarations as part of acceptance activities, which certify that supplies and services have been rendered in accordance with the contract (test and acceptance criteria). This involves consistent requirements engineering using tried and tested data processing procedures. The operational architecture makes relevant contributions by means of its model-based requirements engineering.

238. With respect to relevant decisions on the obligation to submit a draft contract to the Budget Committee of the German Bundestag (generally applicable if the contract value exceeds EUR 25 million), the draft contract prepared and finalised in accordance with the contract management manual must be submitted to the Budget Committee of the German Bundestag for approval prior to signature (so-called EUR 25 million submission).

239. With the assistance of the IPT, the project manager monitors the provision of the contractually agreed supplies/services and takes action if objectives specified in the agreement are not fulfilled.

[34] Compliance tests may also involve tests based on legal requirements, for example if aircraft or ammunition is concerned.

Performance obligations to be met by official services and the resources required by them for integrated compliance demonstration (in particular for Government Quality Assurance and project assistance on site) must be planned, controlled and monitored by the IPT under the responsibility of the project manager.

2.2.3 Integrated compliance demonstration

240. As a general rule, arrangements must be made for integrated compliance demonstration under the responsibility of the project manager. Requirements engineering must be consistently continued on the basis of the statement of work using the tried and tested data processing procedure.

Suitability of a product will be determined on the basis of performance verification activities to be carried out by the contractor in accordance with the customer's requirements, performance target reviews, the result of operational tests as well as other operational parameters and functional limits. The verification activities performed by the contractor (demonstration of contractual compliance including fulfilment of legal requirements and technical safety of the product) and the customer's tests must be duly coordinated. Tests performed by the manufacturer, independent institutions, or government agencies of other countries are supposed be recognised if they meet the intended purpose and comply with the test standards of the public contracting authority.

241. Integrated compliance demonstration also includes operational tests performed by the future users/operators, focusing in particular on vital operational functions and taking into account the project elements as well as realistic conditions determined by the target service use profile[35]. The future users/operators will issue a statement of acceptance once the operational suitability tests have been successfully completed, which are based on operational scenarios laid down in the selection decision document, the requirements of the prioritised requirements catalogue, and the target service use profile.

242. In the event of successful performance verification, the product will be accepted by the customer. As far as ammunition is concerned, pilot lot testing must be conducted in order to declare release for production.

243. Knowledge acquired during integrated compliance demonstration must be considered in the ongoing realisation process and in the event of future contracts for additional deliveries. Products already in use must be retrofitted, if necessary. In addition, relevant findings from operational suitability tests must be communicated via portfolio management and incorporated in the Bundeswehr capability situation.

[35] If major defence equipment (ships/boats) is implemented for the German Navy, Type C1 Special Publications C1-2020/0-7007 “Durchführung von Funktionsnachweisen und Probefahrten bei Schiffen/Booten” (performance of final acceptance and sea trials for ships/boats) and C1-1530/0-1 “Rahmenweisung für die Integrierte Nachweisführung bei Schiffen/Booten” (framework directive regarding integrated compliance demonstration for ships/boats) must be observed.

2.2.4 Approval for service use

244. Based on the results of the integrated compliance demonstration and other findings, the Director-General of BAAINBw issues the approval for service use for category A and B projects[36]. For category C and D projects, the approval for service use is issued by the project manager. The approval for service use certifies that

- safe operation can commence under applicable legal regulations and that product safety is ensured,
- the product meets the performance requirements as set out in the selection decision document,
- where a service is concerned, all associated requirements are fulfilled (help desk, duration, service level etc.) and the service has been integrated into the application-specific operating processes of the Bundeswehr IT system,
- operational maturity is ensured,
- the product is suitable for its intended use and a statement of acceptance has been issued by the users/operators, and
- pilot lot testing has been conducted in order to declare release for production (for example for ammunition and CBRN filters).

245. If residual activities are still required for operational maturity to be achieved or if partial in-service use is envisaged, the approval for service use must contain information on operational maturity and, if applicable, on restrictions on use[37]. Any additional activities, tests and trials that are required must be planned in detail and documented in the approval for service use. Any missing verification activities must be conducted as quickly as possible. If compensation is required, appropriate support measures (for example, training support or industrial support) must be commissioned.

2.2.5 Conclusion of the realisation phase

246. The realisation phase concludes with the delivery of the last item to the users/operators. Results, especially in terms of performance (by means of the data processing procedure introduced for requirements engineering), time and costs, are then compared to specified objectives and documented in a formless manner on the basis of a BAAINBw-internal target/actual comparison (conclusion of the realisation phase). An essential element of the target/actual comparison is presenting the reasons for achieving or missing targets. The outcome of this work can be used for project assessment by the project manager and for the transfer of knowledge across projects. If the conclusion of the realisation phase produces findings that are of greater interest, the BAAINBw executive group must be informed.

[36] This task can be delegated to a BAAINBw director.
[37] This does not constitute a “restricted approval for service use” or the like. The approval for service use is the only valid document in this connection.

Within the framework of knowledge management, lessons learned must be made available across project boundaries with a view to continuously improving project management.

2.3 Phase of in-service use

247. When the first item is delivered to the chiefs of service of the major military organisational elements or to the persons in charge of the major civilian organisational elements, they assume in-service and supply responsibility (see Annex 8.1 “Terms and definitions”) for the maintenance of operational capability and readiness.

248. This also marks the beginning of the phase of in-service use of the product, which concludes with the disposal of the last item. As far as intangible goods (services, licences or rights) are concerned, the phase of in-service use starts with the initial acceptance/use by the user and concludes with the contractually agreed end of provision or use of services.

249. The phase of in-service use aims at the safe and economic use of a product or service in accordance with the intended purpose specified in the selection decision document. The foundations for this must be laid as early as in the analysis and the realisation phase.

2.3.1 Tasks in the phase of in-service use

250. In the phase of in-service use, all measures required to maintain and restore operational maturity, capability and readiness must be carried out. The tasks in the phase of in-service use are detailed in Type A1 General Publication A1-1530/0-7000 VS-NfD (RESTRICTED) “Wahrnehmung der Aufgaben in der Nutzungsphase” (performance of tasks in the phase of in-service use).

251. The IPT performs in-service control tasks under the responsibility of the project manager. Participation of the Bundeswehr Office for Defence Planning/the Cyber and Information Domain Service Headquarters in the IPT ensures that lessons learned in the phase of in-service use become part of the “Executing Integrated Planning” performance process.

252. The Directorate-General for Forces Policy and the Directorate-General for Strategy and Operations have continuous access to project-related reporting and are entitled, on a case-by-case basis, to request information about the projects. They can thus gather information about the effects on capability development and operational availability.

2.3.2 Materiel responsibility for operational maturity

253. Materiel responsibility for operational maturity lies with the Director-General of BAAINBw. The management tasks to be performed focus on maintaining and restoring the operational maturity of products and are planned and controlled by BAAINBw as part of in-service control. Due consideration must be given to the principle of economic efficiency and to the effects on life cycle costs. In this context,

the project manager assumes the product-related responsibilities of the materiel manager for operational maturity.

254. In the phase of in-service use, the main tasks of the project manager or service owner[38] include:

- planning, controlling and coordinating all measures for maintaining and restoring the operational maturity of fielded products and for carrying out residual activities for establishing the operational maturity of acquired products:
  - + coordinating/continuing work on project elements,
  - + carrying out residual activities to establish operational maturity,
  - + performing obsolescence management[39],
  - + executing product-related specialist planning,
  - + risk management in accordance with Type A General Publication A-1500/30,
  - + controlling systems and equipment logistics measures
    - – configuration management/subsystems management,
    - – monitoring and modifying material documentation (master data maintenance and modification, technical documentation),
- initiating and coordinating measures to carry out product modifications,
- initiating/controlling replenishment and replacement procurement activities,
- initiating/requesting supplementary procurement activities,
- initiating/controlling product improvements,
- recording, predicting, controlling and monitoring product-related life cycle costs (LCC) during the phase of in-service use,
- providing technical competence at the request of the “in-service and supply managers responsible for maintaining operational capability and readiness”,
- compiling the reports of the in-service and supply managers responsible for maintaining operational capability and readiness (with information about their origins), and entering the required budget funds into the requirements update,
- assessing the product-related planned value within the framework of the harmonised planning proposal and the product-related planned value identified from the resource plan,
- managing documentation on product-related decisions,
- ensuring timely provision of up-to-date technical documentation,
- requesting, evaluating and exploiting experiences and lessons learned from the use of products,

[38] See Annex 8.1 “Terms and definitions”.
[39] For ammunition, performing central ammunition surveillance.

- identifying surplus materiel (in accordance with the reports of the in-service and supply managers responsible for maintaining operational capability and readiness) and/or materiel that is no longer suitable for its intended use,
- segregating materiel and, if required, supporting its timely disposal, including activities in preparation of disposal,
- controlling the preparation, conclusion and administration of contracts in accordance with national and international agreements; BAAINBw acts as the single point of contact for contractors during the phase of in-service use,
- preparing, presenting and assessing the situation picture related to products, projects and services,
- developing/defining immediate technical measures (for example, restrictions on the use of products or a complete suspension of use) if necessary, involving the in-service and supply managers responsible for maintaining operational capability and readiness, and other competent authorities (for example, the Federal Office of the Bundeswehr for Military Aviation, Director of Bundeswehr Flight Safety),
- evaluating operational data and failure reports as well as other information from in-service use and operations compiled and provided by users/operators,
- performing product monitoring, including recording and assessing the information obtained from routine duty, exercises and operations,
- controlling all project elements in the event of a change or modification of the framework conditions or a change of the target service use profile on the basis of lessons learned from product monitoring,
- preparing and submitting programme inputs for development (postdesign services/modification requirements) and procurement (product modifications, replenishment/replacement procurement) as well as budget contributions for (product) maintenance (product contributions),
- controlling the product-related budget during in-service use,
- adapting and defining specifications for spare parts management and for maintenance and production on the basis of operational status decisions and current needs,
- coordinating (product) maintenance measures, involving the in-service and supply managers responsible for maintaining operational capability and readiness, if required,
- carrying out activities in accordance with section 7.6 “Treatment of disruptions in the course of a project”,
- updating the operational architecture, and
- updating the approval strategy.

255. For this, the project manager uses the expertise of the IPT. In-service control measures in the area of the users/operators are planned and controlled by the project manager in consultation with the

IPT. The authorised representatives of the users/operators in the IPT are responsible for initiating the implementation of these measures in the major organisational elements concerned.

256. The project manager documents the results of in-service control activities and ensures that all participants are kept informed. Related areas must be included in the decision-making process. They provide assistance in coordination with the project manager. User know-how is contributed by the authorised representatives of the users/operators in the IPT.

257. If there is evidence suggesting that product modifications may be necessary, possible solutions must be assessed by the project manager, taking into account benefits and risks in terms of performance, time and costs, including economic aspects. In addition, alternative options must be investigated within all planning categories. In coordination with the Bundeswehr Office for Defence Planning or the Cyber and Information Domain Service Headquarters, possible deficiencies in performance or restrictions on use must be assessed and, if approved, accepted.

2.3.3 In-service and supply responsibility for the maintenance of operational capability and readiness

258. As opposed to materiel responsibility for operational maturity, the chiefs of service of the major military organisational elements or the persons in charge of the major civilian organisational elements have in-service and supply responsibility for the maintenance of operational capability and readiness[40] of the products at their disposal. As far as IT products are concerned, the in-service and supply manager responsible for maintaining operational capability and readiness also performs the tasks of the “IT service manager for operation”.

Depending on the product, an authorised representative assumes in-service and supply responsibility. This includes above all:

- ensuring proper operation and use,
- performing materiel management tasks,
- maintaining and restoring the serviceability of a product by performing (product) maintenance with own resources and/or with services of third parties insofar as no existing contractual provisions must be changed or no new contractual provisions must be adopted and the configuration of the product laid down in the documentation is not changed. This includes inter alia:
  + logistics in the relevant area of responsibility in accordance with the logistics strategy,
  + implementing project-related concepts or comparable FFF specifications in connection with the selection decision (if no individual project-related concept has been prepared) in the respective major organisational element and in Bundeswehr operations,

[40] See also Type C1 Special Publication C1-1500/0-7020 “Wahrnehmung der Betriebs- und Versorgungsverantwortung für den Erhalt der Einsatzfähigkeit und Einsatzbereitschaft” (exercising in-service and supply responsibility for the maintenance of operational capability and readiness).

  - working on project elements as coordinated by the project manager,
  - systems and equipment logistics (maintenance control of own or assigned resources, targets for operation-dependent follow-on spare parts requirements),
  - contributing to product-related specialist planning,
- carrying out changes to products as directed by and coordinated with the materiel manager for operational maturity,
- making available product-related lessons learned and expenditure data[41] as well as preparing proposals from user experiences as a contribution to the planning and further development of a capability and to the improvement of BAAINBw cost management,
- recording and providing verified operational data and failure reports,
- prioritising allocated budgetary funds and measures of the materiel manager for operational maturity for necessary modifications, and coordinating measures with the Bundeswehr-wide prioritisation of the Chief of Defence,
- planning and preparing a contribution concerning the required budget funds for the maintenance of operational capability and readiness to support the materiel manager for operational maturity (for example, maintenance and follow-on spare parts requirements),
- identifying surplus materiel and/or materiel no longer suitable for its intended use in his or her own area of responsibility in order to initiate the segregation and disposal process, and reporting such materiel to the materiel manager for operational maturity, and
- ensuring regeneration training and follow-on training of own personnel for the products used in the respective major organisational element[42].

2.3.4 Product modification, product improvement, replenishment procurement, replacement procurement, and supplementary procurement

259. Users/operators and project managers gain insights from product monitoring and in-service use (operations, exercises and training). Based on these lessons learned, they decide if there is need for action. This can include necessary urgent changes to materiel used on operations, medium-term improvements of existing materiel, or the procurement of new products. Identified need for action must be coordinated and decided upon in the IPT.

2.3.4.1 Product modifications

260. Modifications of fielded products are only permissible if such measures maintain or restore operational maturity or increase economic efficiency during in-service use.

41 Expenditures recognised in the cash position.
42 Training responsibilities for the SASPF project are specified in Type A1 General Publications A1-221/0-6 “Ausbildung Standard-Anwendungs-Software-Produkt-Familien” (standard application software product families training) and A1-221/0-7 “Standard-Anwendungs-Software-Produkt-Familien (SASPF) Ausbildungs-unterlagen” (standard application software product families (SASPF) training documentation).

At least one of the following prerequisites must be met:

- the product must be adapted to legal requirements (for example in terms of approval, environmental protection, or occupational safety and health) or must meet national/international obligations,
- safety and health hazards caused by the product to Bundeswehr personnel, third parties or the environment must be eliminated,
- malfunctions or weaknesses of the product must be eliminated,
- there is an external need to modify individual product parts (components or assemblies), the design status or the configuration of a product, for example due to obsolescence, cooperability requirements or the need to restore interoperability, or
- economic efficiency can be increased during in-service use, for example based on evidence of substantial cost savings.

261. When planning and conducting a product modification, the entire IPT must be involved; at least, however, the authorised representative of the Bundeswehr Office for Defence Planning. Each project element must be considered and the operational architecture must be adapted or updated. The problem causing the need for the intended modification and the required measures must be documented in accordance with applicable directives on the modification of products[43]. The affected elements of the operational architecture must be updated accordingly. The modification approval in accordance with German military standard (VG) 95031 is the binding document in this context.

262. The project manager documents, and gives reasons for, product modifications that affect the budget and that have a total cost[44] of less than EUR 25 million. After consulting with the budget officer, the Director-General of BAAINBw authorises such modifications and thus justifies the budgetary funds that are necessary for product modification. Prior to this, the budgetary requirements must be included in the financial requirements analysis.

263. Product modifications that affect the budget and that have a total cost greater than EUR 25 million must be submitted to the project sponsor for decision. Afterwards, it must be approved by the Director-General of BAAINBw. The validity of the existing approval for service use must be checked. If necessary, the approval for service use must be adapted and newly declared.

2.3.4.2 Product improvements

264. Product improvements may result from unavoidable changes of requirements or from lessons learned from exercising materiel responsibility for operational maturity or in-service and supply responsibility. After approval of the initiative, rough assessment or project outline, FFF of groups I and IV must be amended, newly prepared, if necessary, and approved by the Bundeswehr Office for Defence Planning. For groups II and III, this must be done by the Cyber and Information Domain Service

[43] German military standard VG 95031.
[44] Total expenditure affecting armament investments.

Headquarters. Accordingly, the selection decision document must be adapted or newly prepared (see section 2.1.5).

2.3.4.3 Adjustment of service life

265. If it is necessary to change the service life of a product for operational, technical or economic reasons, BAAINBw and the Bundeswehr Office for Defence Planning/the Cyber and Information Domain Service Headquarters agree on the further course of action, taking into account the effects on the capability profile, the possible inclusion in the medium-term planning, the analysis of financial requirements, the resource plan and the budget. The decision is then recorded in the project documentation and, if necessary, stipulated by means of a selection decision amendment document.

2.3.4.4 Replenishment procurement/replacement procurement

266. Replenishment procurement is carried out in order to address an existing shortage of fielded products. It is justified by means of the segregation notice in connection with the selection decision document. If replenishment procurement of the original product is no longer possible or economical, other available state-of-the-art products can be introduced by replacement procurement on the basis of the segregation notice in connection with the selection decision document. Replacement procurement may also be used to replace waste products (for example within the framework of regeneration). Replenishment and replacement procurement provisions must be applied mutatis mutandis to regenerations planned in detail in the selection decision document. The differences of the product introduced via replacement procurement to the original product must be documented in a modification approval in accordance with VG 95031.

2.3.4.5 Supplementary procurement

267. Supplementary procurement of fielded products is only permissible if it is intended to meet justified additional demand. The Bundeswehr Office for Defence Planning/the Cyber and Information Domain Service Headquarters, in cooperation with the users/operators and BAAINBw, defines the increased demand in comparison with the selection decision document.

268. Additional demand resulting from subsequent amendments to the selected solution proposal must be treated in the same way as a disruption in the course of a project (see section 7.6). The project sponsor will decide on the further course of action. The selection decision document must be adapted accordingly (for example in terms of performance, time or costs). A functional requirement change document, however, is not required. The project manager at BAAINBw is responsible for initiating the adaptation of a selection decision document.

269. Additional demand that requires increasing the quantities specified in the budgetary documents (for example due to organisational changes) must be described and justified by the Bundeswehr Office for Defence Planning/the Cyber and Information Domain Service Headquarters. To

this end, the Bundeswehr Office for Defence Planning/the Cyber and Information Domain Service Headquarters prepares a functional requirement change document, justifying and approving the additional demand. Afterwards, a supplementary solution proposal and the selection decision amendment document are prepared to justify budgetary effects.

2.3.5 Support services

270. Support services rendered by trade and industry or by the organisational element “Equipment, Information Technology and In-Service Support” may be necessary in order to maintain the operational maturity of products.

2.3.5.1 Technical logistic support

271. Technical logistic support services include collecting, processing and providing information. These services are rendered by trade and industry as part of maintaining the operational maturity of products in use.

272. The following principles are applicable:

- Technical logistic support services must be taken into account when it comes to the internal allocation of tasks and the assessment of own capacities.
- The necessity and economic efficiency of technical logistic support services must be checked before a contract is awarded.
- The project manager in charge is responsible for recording, planning and monitoring technical logistic support services.
- The services must be funded by maintenance budget items.

2.3.5.2 Postdesign services

273. Postdesign services required as a basis for decisions on potential product modifications are rendered by trade and industry, the major organisational element “Equipment, Information Technology and In-Service Support”, or, if applicable, by other organisations. These services also comprise the engineering effort required for the preparation of a modification, including the work on software and documentation.

274. Postdesign services end with the decision on the implementation of the proposed modification. The project manager is responsible for planning and using postdesign services.

275. Postdesign services must be funded by development funds. They must be justified and documented by the project manager in a modification requirement in accordance with VG 95031. The modification requirement must be included in the project documentation as an annex to the selection decision document.

2.3.6 Regeneration of hospital/institute-specific medical materiel in the phase of in-service use

276. The armed forces are provided with hospital/institute-specific medical equipment on the basis of the CPM process with the particularity that the Bundeswehr (central) hospitals and the Bundeswehr institutes (Air Force Centre of Aerospace Medicine, Naval Institute of Maritime Medicine, Bundeswehr Institute of Sports Medicine, Bundeswehr Institute of Pharmacology and Toxicology, Bundeswehr Institute of Microbiology, Bundeswehr Institute of Radiobiology, Bundeswehr Institute of Preventive Medicine and the central institutes of the Bundeswehr Medical Service) must each be regarded as a closed system. As a whole, they equal a product in accordance with CPM. This also applies to pharmacies during routine duty, the Bundeswehr occupational health service, the Bundeswehr medical service of the recruitment organisation and regional medical treatment facilities that provide specialist medical care, special dental care, organic medical care and organic dental care during routing duty at home and that use hospital/institute-specific medical equipment on a regular basis. In exceptional cases, fixed medical treatment facilities in theatres of operations can also be provided with hospital/institute-specific medical equipment on the basis of this Type A General Publication, if required. Regeneration measures for hospital/institute-specific medical equipment in the phase of in-service use can therefore usually be performed as replacement procurement in accordance with CPM.

277. Regeneration measures performed must be documented. Equipment changes must be specified as well as supplemented and updated on a yearly basis by means of an annex to the selection decision document. In these cases, coordination between BAAINBw and the Bundeswehr Office for Defence Planning is, in particular, necessary to take into account the measures for the annual preparation of the financial requirements analysis or the resource plan and to be able to assess them in terms of planning during the annual programme negotiations.

3 Procurement procedure for off-the-shelf IT products

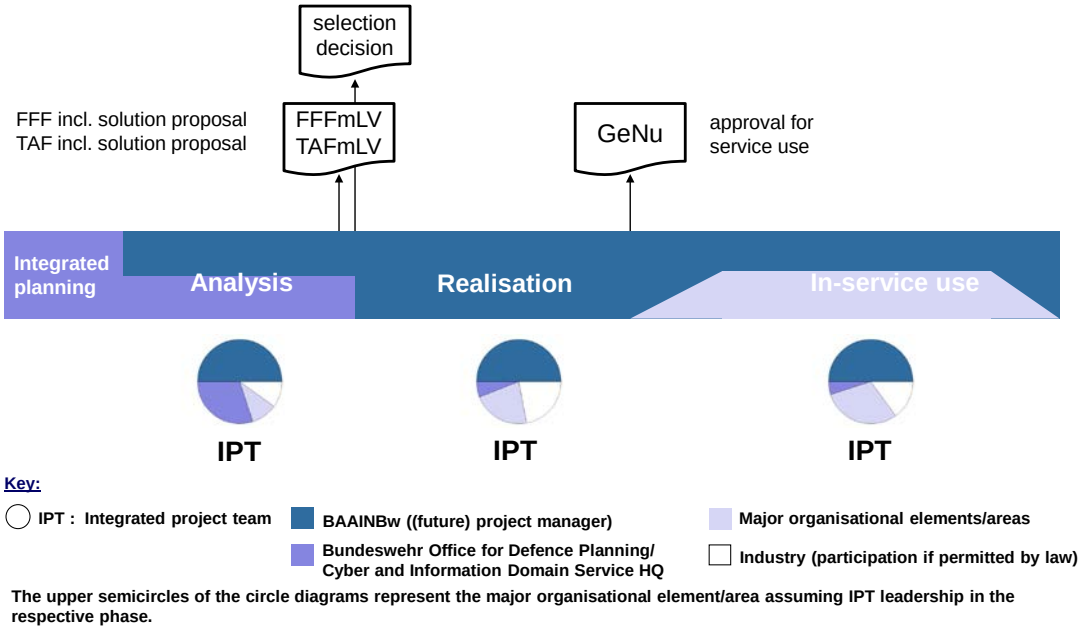

Fig. 4: Procurement procedure for off-the-shelf IT products

301. Information technology is characterised by a high speed of innovation. If the operational profile is largely comparable to that for civilian areas, commercially available solutions and products that do not involve a significant degree of integration or customisation should be used during realisation. Minor adaptations in the form of customised configurations are possible. Adaptive or new developments, however, are not provided for. In order to ensure swift realisation that keeps up with the pace of innovation, requirements should be based on commercially available solutions.

302. In such cases it is not necessary to consider different approaches. It is not necessary, either, to propose various solutions for the CGM approach, because the requirements are based on a commercially available solution. It is therefore not necessary to fulfil the requirements in a graduated way. Different types of procurement (buying, hiring or leasing) must be considered in a suitable manner.

303. The documents “capability gap and functional requirement” (FFF) and “solution proposal” are combined to form the “capability gap and functional requirement including solution proposal” document (FFF incl. solution proposal).

304. Architecture projects for the purposes of the IT strategy for the FMoD area of responsibility are described in a separate document called “Technical architecture requirement including solution proposal” (TAF incl. solution proposal), due to their specific features.

305. This procedure can be applied to group II and III projects.

3.1 Analysis phase

3.1.1 Tasks in the analysis phase

306. When an FFF incl. solution proposal or a TAF incl. solution proposal has been commissioned by the Directorate-General for Cyber/IT, BAAINBw will establish and lead an IPT or task an existing IPT. The Director-General of BAAINBw appoints the project manager, who will also be the IPT leader, whereas the Cyber and Information Domain Service Headquarters appoints the deputy IPT leader. The Bundeswehr Office for Defence Planning and the Cyber and Information Domain Service Headquarters coordinate the Bundeswehr Office for Defence Planning's involvement in the IPT.

307. The project manager/IPT leader is responsible for the solution part during the analysis phase. He or she also bears responsibility for the entire project. The deputy IPT leader is responsible for the requirements part. Decisions will be made by the IPT leader in consultation with the deputy IPT leader during the entire analysis phase. If no agreement is reached, the issue has to be escalated up to the level of the Director-General for Cyber/IT. The Director-General for Cyber/IT will make the final decision.

308. BAAINBw brings its technical and economic know-how to the IPT. If required and justifiable in terms of legal (contracting) provisions, BAAINBw will usually involve appropriate representatives from business and industry and, in particular, from in-house companies at this early phase. This is ensured by involving the authorised representatives of the future users/operators in the IPT. The project manager initiates project management[45] and risk management.

309. The project manager and the deputy IPT leader are responsible for providing future users/operators with suitable and operational products and services in a timely manner within the specified financial framework.

310. In order to formulate the functional requirements, the IPT examines and considers:

- experience with products and services that have been fielded, are commercially available or that are currently in development, in particular CGM products and services,
- lessons learned and findings from the field of standardisation,
- experience and lessons learned from the field of IT security/cyber security,
- experience and lessons learned from in-service use and operation (including missions),
- lessons learned from IT services available in the Bundeswehr IT services portfolio,
- lessons learned by allies and partners,
- lessons learned from international armaments cooperation, and
- findings and results of defence research and technology and nontechnical scientific support.

[45] Project management includes effective and flexible project controlling.

311. When a solution is being developed in the form of technical-functional performance targets, the following tasks may have to be fulfilled:

- market surveys and assessments of available products and services,
- exploring and assessing possibilities for (national/international) cooperation,
- ensuring that no products are introduced in the Bundeswehr that are or will be inadmissible under existing or expected German legislation or international agreements. This includes, in particular, a review in accordance with A-2146/1,
- developing the system architecture at project level,
- giving consideration to the IT outline concept of the German government, the strategic guideline on digital transformation, the IT strategy and the current BWI strategy[46],
- giving consideration to and applying current standards,
- assessing the solution part (including all project elements) in the context of system architecture, in particular technical and economic dependencies on planned projects/programmes, projects/programmes in the realisation phase, or already available products/services/IT services,
- determining quantities/licences in accordance with the target capabilities specified in the Bundeswehr Capability Profile,
- planning the realisation phase and the phase of in-service use in detail across all relevant project elements and, if applicable, proposing a batch approach or gradual introduction,
- describing/elaborating the entire scope of the project (including those parts that are to be realised at a later date or as part of other projects), assigning the project to a programme and considering potential dependencies on other projects of that programme,
- estimating the resources required for integrated compliance demonstration (including operational suitability tests) and statutory compliance tests that are to be monitored by government agencies (e.g. BAAINBw),
- estimating technical logistic support services with regard to type and, if applicable, scope,
- performing risk management in accordance with A-1500/30,
- giving consideration to obsolescence management and avoiding early obsolescence,
- performing a suitable economic efficiency analysis with due regard to the criteria catalogue[47] applicable to the measure and, if necessary, involving the competent budget officer,
- predicting the time required for realisation,
- predicting the life cycle costs in accordance with A-1510/1 using appropriate analysis, prediction and simulation methods (for example, logistic support analysis or life cycle management), and
- for group II to IV projects: developing a service solution outline to describe the design of an IT service or a set of bundled IT services (e.g. IT service module, IT services package).

[46] As of 2017: BWI 2020 Strategy.
[47] See Type C1 Special Publication C1-2400/0-7005 VS-NfD (Restricted) “IT-Wirtschaftlichkeitsbetrachtung” (economic efficiency analysis for IT measures).

312. The intended solution must be analysed and assessed in terms of performance, time, costs and risks within the limits imposed by contracting law (for example, product and manufacturer neutrality). Compliance with the limits imposed by (contracting) law (for example, product and manufacturer neutrality) must be ensured, for example, by involving internal legal experts.

3.1.2 "Capability gap and functional requirement including solution proposal" (FFF incl. solution proposal) and "technical architecture requirement including solution proposal" (TAF incl. solution proposal)

313. Capability gaps can be gradually closed in order to make (partial) capabilities available at an early date, which can then be gradually supplemented until the full capability is reached (based on the functional requirement). Due consideration must be given to the principles of efficiency and economy. In this case, parts of a project (after the entire project has been planned in full detail) are implemented individually, at staggered intervals, or at the same time. The overall system approach of the solution must be described in the "FFF incl. solution proposal" document or the "TAF incl. solution proposal" document. Individual parts must be suitable for their intended purpose and must themselves be operational. A project may be divided into individual parts on the basis of performance, procurement volume or selected users.

314. The requirements part of the FFF incl. solution proposal/TAF incl. solution proposal includes

- the designation of the required capability,
- the description of the capability requirement,
- a deduction of the capability from the Bundeswehr capability profile and a short description of the capability delta within the context of the Bundeswehr IT system on the basis of the capability situation (for FFF incl. solution proposal) or a deduction of the capability from the requirements of the IT strategy for the FMoD area of responsibility and the operational architecture of the Bundeswehr IT system (for TAF incl. solution proposal),
- project-specific targets derived from the system architecture of the Bundeswehr IT system,
- project-specific targets derived from in-service use and operations,
- standardisation targets,
- project-relevant requirements for information security and data protection,
- the allocation of the project to a specific programme, if applicable,
- a description of the functional requirement with the associated target in-service use profile and project elements,
- operational architectures in accordance with the targets specified by the Bundeswehr system architect,
- for group II and III projects: a list of the service requirements and a list of already existing and usable IT services,

- information about the demand, the intended service life, and the future user/operator,
- requirements concerning the availability of the capability,
- an estimate of the time frame and cost for the entire life cycle, including general constraints (if any), for example from an overall planning perspective. The estimated cost must be structured in accordance with A-1510/1 to comprise at least the following four project elements: technical and economic elements, personnel/training, logistics, and infrastructure,
- a statement on the need for physical security measures in close cooperation with the Federal Office of Military Counter-Intelligence, if required, and
- experience and lessons learned from the field of IT security/cyber security.

315. The solution part contains statements concerning

- the nature of the proposed solution and the demand (quantities/licences),
- the time required for realisation,
- the specifications regarding the use of approved products and the decision on accreditation,
- in-service use (logistics, personnel/training, infrastructure measures, etc.),
- the date of planned regenerations,
- the predicted life cycle costs, shown separately according to the funds required for realisation, planned regenerations and in-service use,
- economic efficiency with due regard to life cycle costs,
- the relationships to other projects/programmes,
- the standardised presentation of early-warning indicators and risks already identified for the relevant solution proposal (including all project elements),
- the planned service life,
- the integration of the solution proposal (including all project elements) in the context of system architecture, in particular with regard to technical and economic dependencies on planned projects, projects in the realisation phase, or already available products/services/IT services,
- the latest date for the decision on a potential follow-on procurement so as to be able to replace the fielded products when the end of their service life has been reached, and
- an appraisal of whether “important national security interests” in accordance with Art. 346 of the TFEU are affected (e.g. key technologies).

3.1.3 Submission of the “capability gap and functional requirement including solution proposal” (FFF incl. solution proposal) and “technical architecture requirement including solution proposal” (TAF incl. solution proposal)/Making a selection decision

316. BAAINBw submits the FFF incl. solution proposal and TAF incl. solution proposal documents developed for project categories A and B to the Directorate-General for Cyber/IT.

The Director-General for Cyber/IT seeks a statement

- from the Directorate-General for Planning on whether the proposed solution can be included in the medium-term planning, financial planning and implementation, and
- from the Directorate-General for Budget and Controlling on a budget estimate and financial plan.

317. The Directorate-General for Equipment has the lead role in assessing the importance for defence industry and armaments policy, involving the Directorate-General for Cyber/IT for the Cyber/IT sub-portfolio. Subsequently, the Directorate-General for Cyber/IT, which exercises functional supervision, submits the FFF incl. solution proposal/TAF incl. solution proposal to the Directorate-General for Planning for a final assessment from an overall planning perspective. The Directorate-General for Planning submits the FFF incl. solution proposal/TAF incl. solution proposal to the Chief of Defence so that he or she can make a selection decision. The Chief of Defence’s approval of the FFF incl. solution proposal/TAF incl. solution proposal constitutes the selection decision. At that point, the Chief of Defence may specify additional realisation requirements within the scope of his or her overall planning responsibility. Deviations from these requirements must be treated as disruptions in the course of a project in accordance with section 7.6.

318. The FFF incl. solution proposal documents developed for category C and D projects are submitted by BAAINBw to the Cyber and Information Domain Service Headquarters (groups II and III), which will make the selection decision. FFF incl. solution proposal documents of group III will then be submitted to the Bundeswehr Office for Defence Planning, as in this group of cases selection decisions are made jointly by the Director-General of the Bundeswehr Office for Defence Planning and the Chief of the Cyber and Information Domain Service.

319. The selection decision document is the budgetary document for all measures during the realisation phase and for the regenerations planned in detail in this document. If, after completion of the analysis phase, the constraints of a project change to such a degree that the selection decision document must be amended, an “FFF incl. solution proposal change document”[48] must be developed. The tasks, responsibilities and involvements in the preparation, staffing, and signing/approval of an FFF

[48] The FFF incl. solution proposal change document can be used to describe and justify changes both in the requirements part (FFF) and in the solution part (solution proposal).

incl. solution proposal change document/the selection decision amendment document arise from the specifications for the FFF incl. solution proposal/selection decision document.

320. The selection decision marks the end of the analysis phase.

3.2 Realisation phase

321. Identical to the basic procedure, see section 2.2 “Realisation phase”.

3.3 Phase of in-service use

322. Identical to the basic procedure, see section 2.3 “Phase of in-service use” (to be applied accordingly).

4 Simplified procedure for projects requiring funds up to EUR 500 000

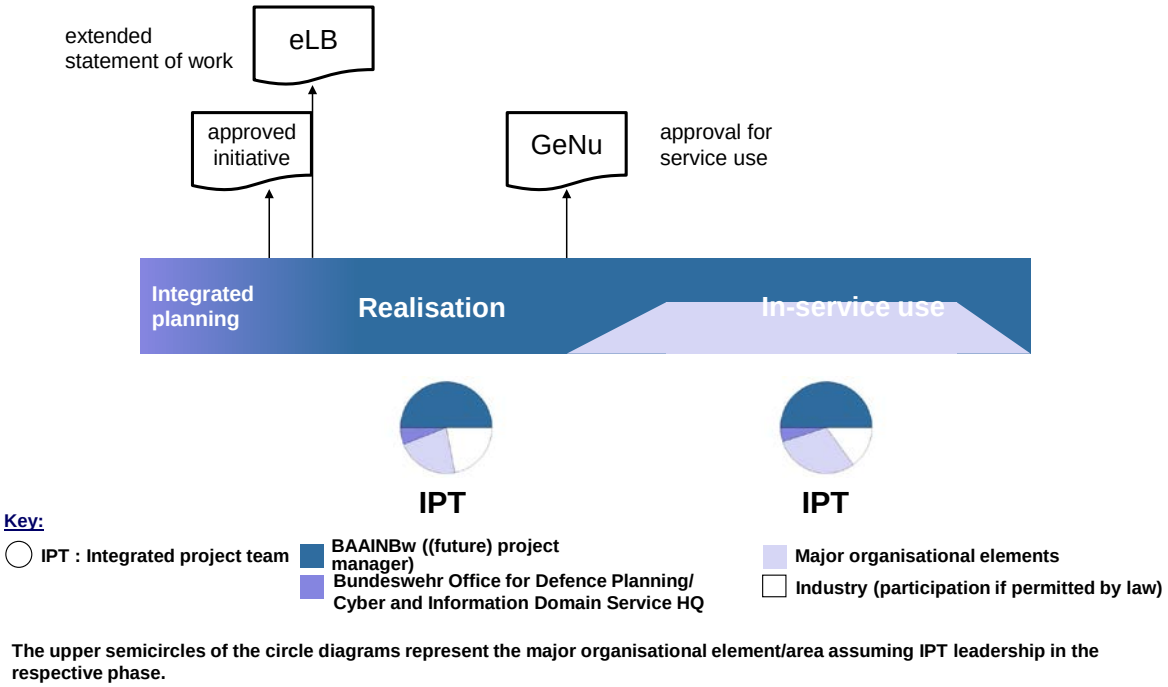

Fig. 5: Simplified procedure for projects requiring funds up to EUR 500 000

401. The assessment and processing steps of the “Executing Integrated Planning” performance process and the basic procedure aim to substantially minimise risks. Especially in less complex projects, the procedural effort can be reduced to ensure an adequate relation to the project scope. This applies to all activities relating to project work, functional supervision and reporting.

402. The simplified procedure for projects requiring funds up to EUR 500 000[49] is a flexible instrument. It is used to enable procurement with reduced effort[50], even at short notice. The procedure can be applied to all global items of budget chapter 1405, to chapter 1401, budget item group 08 (international operations) and to chapter 1413, budget item group 55 (IT).

[49] The upper limit of the total project volume of EUR 500 000 refers to the investment costs of procurement, integration (if applicable) and establishment of logistic supportability for the overall quantity or overall demand. Dividing the costs into smaller amounts is not admissible. The simplified procedure may only be applied to procurement activities that are not related to a specific project. Procurement using the simplified procedure is not possible for products that have already been fielded in the Bundeswehr or products that require regeneration measures.

[50] This procedure limits internal Bundeswehr procedures to budgetary requirements in accordance with Section 24 of the Federal Budget Code and the general administrative regulations to the Federal Budget Code regarding Section 24, no. 2.1 et seq.

4.1 Initiative/Requirements document

403. In coordination with BAAINBw and in close cooperation with the future user, the Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters examines whether the functional requirements of the initiative are complete or specified in sufficient detail for later procurement. If necessary, the Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters will consult with BAAINBw, the person submitting the initiative and the user, and amend the requirements accordingly.

404. The outcome of this consultation is documented in the initiative. Subsequently, the Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters recognises the initiative as a requirements document and submits it to BAAINBw with a copy to the competent branch of the Directorate-General for Equipment or Cyber/IT exercising functional supervision and the competent domain branch of the Directorate-General for Planning or Cyber/IT.

405. Projects under the simplified procedure are to be rated as category D projects.

4.2 Realisation phase

406. The objective of the realisation phase is to provide users/operators with suitable and operational products and services in a timely manner within the specified financial framework.

In order to ensure the unimpeded, swift, and independent implementation of a project, interventions in the project are generally not intended during the realisation phase. If, nevertheless, changes/interventions become necessary, the procedure specified in section 7.6 “Treatment of disruptions in the course of a project” must be followed.

407. Having received the requirements document (approved initiative), BAAINBw may establish an IPT or task an existing IPT, as required. The Director-General of BAAINBw appoints the project manager, who will be the IPT leader, if applicable.

408. The project manager is responsible for providing future users/operators with suitable and operational products and services in a timely manner within the specified financial framework. In order to include the expertise of potential users/operators, their authorised representatives also participate in the IPT. Alternatively, the project manager is responsible for including the users’/operators’ expertise.

4.2.1 Extended statement of work

409. The project manager develops an extended statement of work directly on the basis of the requirements document. The extended statement of work serves as a basis for contract award. It differs from a normal statement of work in that it contains a supplementary description of the overall budget needs, the funding source, a schedule for project implementation, statements concerning the

anticipated service life and a life cycle costs forecast in accordance with A-1510/1[51]. The project manager identifies the relevant project elements and uses them to derive guidelines for operation and establishment of operational maturity.

410. After the budget officer has co-signed the extended statement of work, the responsible BAAINBw chief of division approves it. This gives the extended statement of work a budgetary character and establishes readiness for budgeting and contract award. The project is now ready to be implemented.

4.2.2 Tasks in the realisation phase

411. The project manager takes appropriate measures to ensure the implementation of a project within the specified performance, time and cost framework. His or her actions must be guided by the principles of efficiency and economy. During the realisation phase, the project manager (or the IPT, if applicable) has to consider knowledge gained and lessons learned from in-service use.

412. The main tasks of the project manager include

- planning, controlling (including change request management) and monitoring the realisation process, including the relevant project elements,
- recording, predicting, controlling and monitoring product-related life cycle costs,
- controlling the preparation, award and administration of contracts (BAAINBw is the single point of contact for contractors),
- controlling and monitoring the flow of project-related funds,
- representing the project during reviews,
- documenting project decisions and, as required, updating project data within the scope of CPM IT support,
- planning integrated compliance demonstration, if required, (in particular with regard to statutory compliance tests that are to be monitored by government agencies (e.g. BAAINBw),
- preparing the approval for service use,
- representing the project externally,
- assisting in the preparation of reports for the Federal Audit Office and other institutions, and
- developing and submitting supplementary solution proposals if the project is extended causing the overall demand to exceed the EUR 500 000 upper limit. In that case it is necessary to change over to the basic procedure or the procedure to procure off-the-shelf IT products, starting with the development of a supplementary solution proposal.

[51] The additional information contained in the extended statement of work is required so that it can be recognised as a budgetary document. However, it is **not** a part of the award and contract documents.

413. The project manager uses the expertise of the IPT. He or she plans, controls and monitors measures concerning project elements in the area of future users/operators in consultation with the IPT. Authorised representatives of the future users/operators are responsible for coordinating these measures and implementing them in the major organisational elements concerned.

414. The project manager documents the results of the realisation phase and ensures that all participants are kept informed. Related areas must be included in the decision-making process. In coordination with the project manager, they ensure that the required assistance is provided. User know-how is contributed (via the IPT, if applicable) by the authorised representatives of the future users/operators.

415. The Directorate-General for Planning/the Bundeswehr Office for Defence Planning, the Directorate-General for Forces Policy, the Directorate-General for Strategy and Operations and the Cyber and Information Domain Service Headquarters have continuous access to project-related reporting and are entitled, on a case-by-case basis, to request information about the projects. They can thus gather information about the effects on capability development and operational availability in a timely manner. In this way, lessons learned in the realisation phase become part of the “Executing Integrated Planning” performance process.

4.2.3 Contract award

416. BAAINBw conducts the award procedure and awards the contract to implement the extended statement of work. The procedures and activities are, in principle, the same as those specified in section 2.2.2 “Contract award” of the basic procedure. If the outcome of the award procedure necessitates changes to the extended statement of work (for example, with regard to required funding), it must be adapted, as long as the total project volume remains below EUR 500 000. Otherwise, the project must be incorporated into the budget plan and a supplementary solution proposal must be developed and submitted in accordance with the provisions of the basic procedure (see section 2.1.3 et seq.).

4.2.4 Integrated compliance demonstration

417. As a general rule, integrated compliance demonstration is not part of the simplified procedure. If the project manager or the future user/operator deems integrated compliance demonstration necessary, the provisions of section 2.2.3 “Integrated compliance demonstration” must be applied accordingly.

4.2.5 Approval for service use

418. Identical to section 2.2.4 “Approval for service use“.

As a general rule, preparing a target/actual comparison is not part of the simplified procedure.

4.3 Phase of in-service use

419. Identical to section 2.3 “Phase of in-service use”.

5 Procedure for meeting unforeseeable urgent operational requirements (fast-track initiative for operations)

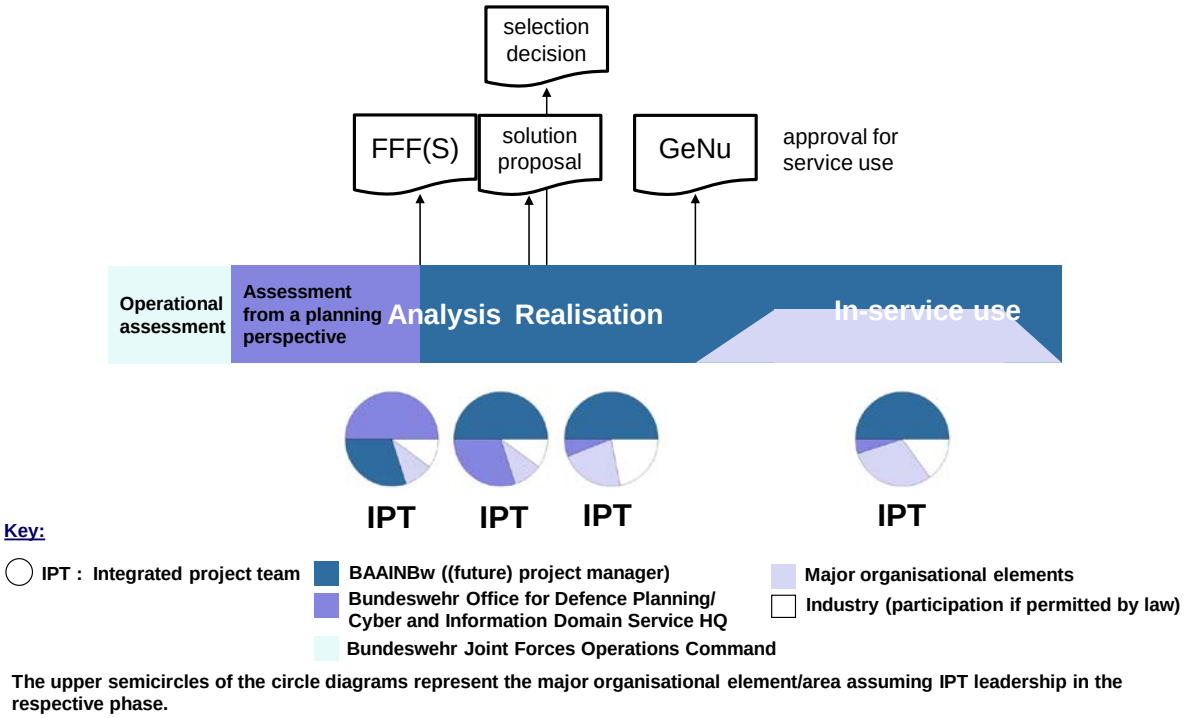

Fig. 6: Procedure for meeting unforeseeable urgent operational requirements

501. Unforeseeable urgent operational requirements[52] are introduced with a fast-track initiative for operations. They are submitted by a major organisational element, a contingent or BAAINBw to the Bundeswehr Joint Forces Operations Command.

502. Fast-track initiatives for operations must be given top priority at all times, even if this entails acceptable risks. This means they will be given preferential treatment over other projects. If, in specific cases, this results in negative consequences for other projects, these must be accepted, except for quality requirements of products/services. Individual deviations from this requirement must be immediately documented and justified within the scope of “IT support for fast-track initiatives for operations”.

503. Quick and simple solutions should be preferred to complex ones, so that partial capabilities can be provided at an early stage. No developments will be made due to the great urgency.

504. Fast-track initiatives are implemented at office level. If no agreement can be reached at office level in a particular step of the procedure and FMoD involvement is required and/or, as the case may be, a need for adjustments at ministry level is identified, an ad-hoc body will be established consisting of the chiefs (or their designated deputies) of FMoD branches SE III 2, A IV 6 and CIT II 1, Plg II 1-5

[52] This procedure may also be applied to operations and missions upon a decision of the Federal Government and to missions commissioned by the FMoD executive group at short notice.

(depending on which is the responsible branch), Plg III 5, HC I 6 and other branches or subordinate agencies, as required. If no agreement is reached, a decision must be taken at once at the director-general level.

In accordance with the requirements for category C projects, fast-track initiatives for operations are processed at office level (one exception is the release of budget funds in chapter 1401, budget item group 08, for mandated missions). If there is no mandated mission, financial feasibility must be examined and assessed from a planning perspective at office level before (if required) the ministry is involved, for example for prioritisation purposes, taking possible negative consequences for other projects into account. Requests (if needed) must be submitted by the Bundeswehr Office for Defence Planning to the Directorate-General for Planning.

505. The solution proposal must be limited to products that can be provided within the specified time frame (up to 6 months after conclusion of a contract). Availability at short notice (even of partial capabilities) must be given preference over a comprehensive but time-consuming process where all requirements are fulfilled. The CPM documents are prepared in the course of the procedure, there will be no retroactive completion.

506. Fast-track initiatives for operations that require budgets funds of more than EUR 5 million must be approved by the Director-General of the Bundeswehr Office for Defence Planning or the Chief of the Cyber and Information Domain Service (groups II and III). The realisation period must, as a rule, not exceed 6 months after contract conclusion. Deviations from this requirement must also be approved by the Director-General of the Bundeswehr Office for Defence Planning or the Chief of the Cyber and Information Domain Service (groups II and III). If the realisation of fast-track initiatives for operations exceeds 24 months after contract conclusion, they will be continued as CPM projects.

507. For fast-track initiatives for operations, simplified documents in accordance with sections 5.1.1.2 and 5.1.1.4 complying with the requirements of Section 24 of the Federal Budget Code[53] are developed in the analysis phase. Only one solution proposal is developed. Different types of procurement (buying, hiring or leasing) must be considered in a suitable manner. The scope of the solution proposal including the associated documents and concepts should be limited to that required for the statement of work. The remaining elements will be developed in the realisation phase. Funding must be confirmed as early as possible so that work on the fast-track initiative can proceed as quickly as possible and even simultaneously, if feasible.

508. **Fast-track initiative for operations:** In addition to describing the capability gap and the functional requirement, technical and functional performance targets and quantities, fast-track initiatives

[53] In conjunction with the general administrative regulations to the Federal Budget Code (VV-BHO) regarding Section 24 (2.4).

may already propose commercially available solutions. Fast-track initiatives for operations must be submitted to the Bundeswehr Joint Forces Operations Command as soon as possible.

509. Operational assessment/Examining options for provision from stock: The Bundeswehr Joint Forces Operations Command carries out an operational assessment to confirm the operational necessity and urgency of the fast-track initiative. Upon completion of the operational assessment, the demand is accepted or rejected from an operational point of view. In addition, the Joint Forces Operations Command examines whether it is possible to close the capability gap within the contingent using materiel available in Germany (redistribution of stocks between units or provision of materiel from depot stocks). Having received a positive operational assessment, fast-track initiatives are submitted to the Bundeswehr Office for Defence Planning.

510. Assessment from a planning perspective/Selecting a realisation path: The Bundeswehr Office for Defence Planning, the Cyber and Information Domain Service Headquarters and BAAINBw assign the fast-track initiative for operations to a group of cases (I to IV). If no agreement can be reached, the ad-hoc body[54] will be convened.

511. Fast-track initiatives for operations assigned to the Cyber/IT sub-portfolio (groups II and III) are processed by the Cyber and Information Domain Service Headquarters, all others are processed by the Bundeswehr Office for Defence Planning. The Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters is in charge of the assessment from a planning perspective.

512. BAAINBw contributes its technical and economic expertise, estimating the required budget funds and the realisation period and suggesting a realisation path for the fast-track initiative.

513. The future users and the in-service and supply managers must be stated in the relevant requirement documents, irrespective of the selected realisation path.

514. The following realisation paths are applicable to fast-track initiatives for operations:

- basic procedure for fast-track initiatives for operations,
- modification procedure,
- simplified procedure for projects requiring funds up to EUR 500 000,
- Bundeswehr Purchasing, or
- submission to the FMoD executive group for decision.

The realisation path may be selected on the basis of the following flowchart:

[54] The ad-hoc body consists of the chiefs (or their designated deputies) of FMoD branches SE III 2, A IV 6, Plg II 1-5 (depending on which is the responsible branch), Plg III 5, CIT II 1, HC I 6 and other branches, as required. If no agreement is reached, a decision must be taken at once at the director-general level.

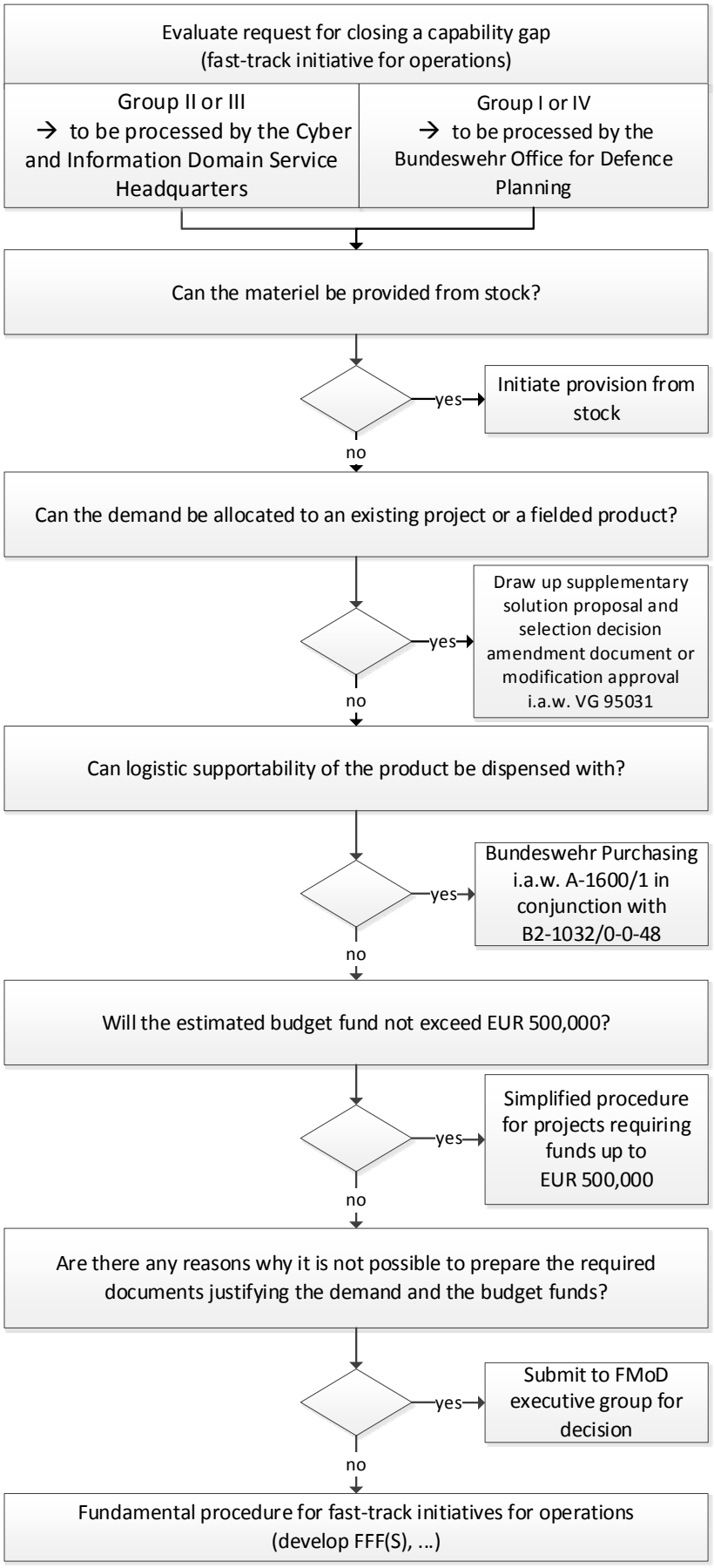

Fig. 7: Flowchart – Selecting a possible realisation path for fast-track initiatives for operations

5.1 Basic procedure for fast-track initiatives for operations

5.1.1 Analysis phase

5.1.1.1 Tasks in part 1 of the analysis phase

515. Identical to the basic procedure, see section 2.1.1 “Tasks in part 1 of the analysis phase”.

5.1.1.2 Capability gap and functional requirement document (fast-track initiative)

516. The FFF(S) contains at least the following information:

- designation of the required capability and reference to the Bundeswehr capability situation,
- description of the capability requirement including the associated target service use profile (a prioritised requirements catalogue should be prepared using the data processing procedure introduced for requirements engineering, if this is necessary due to the scope and complexity of the requirements),
- information about the demand, the intended service life and the future user/operator (thus specifying which major organisational elements/areas have in-service and supply responsibility for the maintenance of operational capability and readiness),
- requirements concerning the availability of the capability,
- deadline for provision (e.g. in international commitments),
- description of major risks, in particular those associated with quick implementation,
- a statement on the need for personnel and physical security measures in close cooperation with the Federal Office of Military Counter-Intelligence,
- a statement about whether "important national security interests” in accordance with Art. 346 of the TFEU (e.g. key technologies) are affected, and
- estimate of the time frame and cost for the entire life cycle.

517. When developing the FFF(S), the focus should be on rapidly obtaining the required content (requirements, target service use profile, information security, etc.). Meeting the demand has priority over a comprehensive description.

Whenever possible, the solution proposal should be developed in parallel with the FFF(S).

518. The FFF(S) must include a statement by the future project manager on the suitability of the FFF(S) with regard to the further processing within CPM taking the following aspects into account:

- completeness of information (e.g. target service use profile) and
- the time scheduled for part 2 of the analysis phase and the realisation phase.

The prioritised requirements catalogue (if one has been prepared) is explicitly not included in the statement.

519. In accordance with the requirements for category C projects, FFF(S) documents are signed by the Director-General of the Bundeswehr Office for Defence Planning or the Chief of the Cyber and Information Domain Service.

5.1.1.3 Tasks in part 2 of the analysis phase

520. Only one solution proposal is developed for fast-track initiatives for operations. The scope of the solution proposal including the associated documents and concepts should be limited to that required for the statement of work. The aim is to achieve realisation and in-service use as quickly as possible, while keeping the risk manageable. The remaining elements will be developed in the realisation phase. The corresponding documentation, including binding completion dates, must be included in the solution proposal.

521. Proposed solutions must give priority to suitable available products. Different types of procurement (buying, hiring or leasing) must be considered in a suitable manner.

5.1.1.4 Content of the solution proposal/Making a selection decision

522. The solution proposal contains statements concerning

- the nature of the proposed solution and the demand,
- the fulfilment of requirements in terms of quality and quantity,
- information security,
- the relationships to other projects/programmes, if applicable,
- the time required for implementation,
- in-service use (planned service life, logistics, elements of logistic supportability that may be (temporarily) dispensed with, management, personnel/training, infrastructure measures, etc.),
- the predicted life cycle costs, shown separately according to the funds required for realisation, planned regenerations and in-service use,
- the quality assurance requirements,
- economic efficiency with due regard to life cycle costs,
- the major risks, and
- the question whether “important national security interests” in accordance with Art. 346 of the TFEU are affected (e.g. key technologies).

523. The Director-General of the Bundeswehr Office for Defence Planning and/or the Chief of the Cyber and Information Domain Service make the selection decision on the basis of the solution proposal. The selection decision document is the budgetary document for all measures during the realisation phase.

5.1.2 Realisation phase

5.1.2.1 Tasks in the realisation phase

524. The main tasks of the project manager include

- planning, controlling (including change request management) and monitoring the realisation process, including all project elements involved,
- controlling and monitoring project-related costs, taking into account the product-based target service use profile specified in the selection decision document,
- controlling the preparation, award and administration of contracts (BAAINBw is the single point of contact for contractors),
- controlling and monitoring the flow of project-related funds,
- performing risk management, including reporting of required information,
- planning integrated compliance demonstration, if required, including statutory compliance tests that are to be monitored by government agencies (e.g. BAAINBw)[55],
- preparing the approval for service use,
- documenting decisions,
- representing the project externally, and
- assisting in the preparation of reports for the committees of the German Bundestag, the Federal Audit Office, and other institutions.

525. If the work on individual project elements or the development of project-related concepts (for example, logistic concept, training concept, information security and data protection concept, etc.) in the analysis phase has been deferred in favour of an earlier realisation start, these elements must be developed/finalised no later than during the realisation phase before approval for service use is granted.

5.1.2.2 Contract award

526. In order to implement the selection decision, BAAINBw conducts the award procedure and awards the contract. Due to the urgency and unpredictability of demand, the possibility of reducing time limits in accordance with Section 20 of the Regulation on the Award of Public Contracts in the Fields of Defence and Security (VSVgV) must always be examined.

527. The draft contract must include project control instruments, performance and costs milestones (which are also a basis for government project management and project controlling) and contractor quality assurance requirements (including the contracting authority's monitoring/inspection rights).

528. In addition to the performance obligations to be met by the contractor, the draft contract must also define criteria for verifying compliance with the contract and with legal requirements as well as with

[55] Due to the high urgency, integrated compliance demonstration must be limited to the absolute minimum required.

any necessary support services for government tests[56]. These tests must be described as precisely as possible at the time of contract conclusion. This applies both to the execution of tests and to the test and acceptance criteria.

529. The project manager monitors the provision of the contractually agreed supplies/services and takes action if there are deviations from the objectives specified in the contract, with the assistance of the IPT, if required. Obligations to be performed by official services must be planned, controlled and monitored by the IPT under the responsibility of the project manager.

530. If the outcome of the award procedure necessitates changes to the selection decision document (for example, with regard to required funding), a supplementary solution proposal must be developed and the selection decision document must be amended accordingly (involving the project sponsor, if required).

5.1.2.3 Approval for service use

531. Identical to the basic procedure, see section 2.2.4 “Approval for service use“.

5.1.3 Phase of in-service use

532. Identical to the basic procedure, see section 2.3 “Phase of in-service use”.

5.2 Simplified procedure for projects requiring funds up to EUR 500 000

533. The simplified procedure for projects requiring funds up to EUR 500 000 for unforeseeable urgent operational requirements is identical to the **Simplified procedure for projects requiring funds up to EUR 500 000 (see section 4)**. Due to the operational relevance of such projects, they are assigned to category C instead of category D, which is usually the appropriate category for simplified procedures.

5.3 Modification procedure

534. If urgent operational requirements can be allocated to a specific project in the realisation phase or phase of in-service use, the modification procedure may be applied for realisation.

535. Depending on the required modification, a supplementary solution proposal for supplementary procurement activities must be developed or a modification approval in accordance with German military standard VG 95031 must be obtained.

[56] As a rule, no government inspections are conducted for commercially available products. Exceptions are integration tests or tests concerning special military applications.

5.4 Bundeswehr Purchasing

536. Commercial off-the-shelf and Bundeswehr-specific goods, rights and services required to maintain Bundeswehr routine service on operations, during exercises and routine duty at home and abroad are procured by means of “Bundeswehr Purchasing”. This includes follow-on procurement of spare parts for weapon systems/equipment during the phase of in-service use as well as demand that is met via interministerial procurement activities (for example, the federal government’s virtual marketplace).

537. Commercially available off-the-shelf products may be procured using the Bundeswehr purchasing procedure if the following requirements are met: off-the-shelf, available on the market and without any technical, economic and organisational risks, not listed in Annex 8.1 (negative list) to Type A General Publication A-1600/1 “Einkauf der Bundeswehr (Betriebsbedingte Beschaffungen)” (Bundeswehr Purchasing (non-project procurement). Also, procurement is subject to approval of the required budgetary funds on the basis of the appropriate request (“order request”). The order request must include all documents (statement of work, etc.) required for the invitation to tender.

5.5 Submission to the FMoD executive group for decision

538. If, in exceptional cases, there are reasons why it is not possible to prepare the required documents justifying the demand and the budget funds to be used, a paper specifying an accepted urgent operational requirement may be submitted to the FMoD executive group for decision (using the appropriate template “Vorlage zur Entscheidung”) to justify the demand and the budget funds. In this case, the approved paper replaces the FFF(S), solution proposal and selection decision documents. The Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters prepares the paper in close coordination with BAAINBw and submits it to the FMoD executive group for decision. This paper must contain statements on the existing demand, the significance of the capability gap, the project elements, the planned procedure including its economic efficiency, a risk assessment, the budget funds required for realisation (including the appropriate budget chapters and items), and the life cycle costs. B

539. The paper is submitted to the FMoD executive group by the competent domain branch of the Directorate-General for Planning/CIT II 1, in accordance with the FMoD Rules of Procedure.

540. Once the paper has been approved by the FMoD executive group and the availability of funds has been guaranteed, BAAINBw will initiate the realisation of the project in accordance with section 5.1.2. The requirements and the approach may be documented in the paper submitted, a separate document or the “IT support for fast-track initiatives for operations” document.

6 Procedure for multinational projects

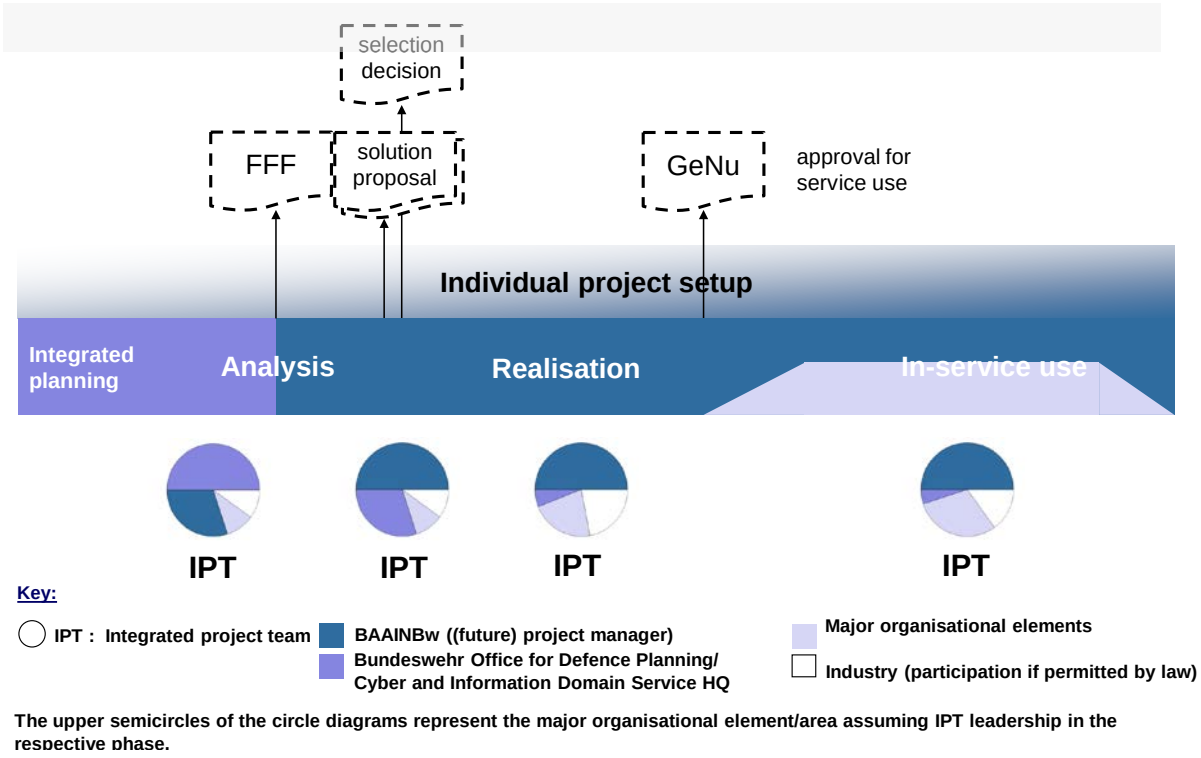

Fig. 8: Procedure for multinational projects

601. Projects based on international cooperation normally have unique framework conditions which have to be adequately taken into account. This is done by selecting an appropriate project setup/appropriate procedural regulations.

602. The setup of each project and its adjusted procedural regulations are based on the procedures described in this publication. They ensure that maximum use is made of harmonised interfaces with other processes, regulations and areas. This includes national management and assessment of the products in SASPF.

603. It must be checked at an early stage whether procedural regulations have to be adjusted. If adjustment is required, it should be completed before an agreement on the international cooperation project is reached. CPM elements that cannot or must not be adjusted (such as budgetary documents) should be taken into account when negotiating the fundamentals of international cooperation projects.

604. The detailed project-specific procedural regulations must include all relevant conditions of the international/multinational cooperation project. These may include:

- NATO or EU procedural provisions or procedural provisions of participating nations/organisations,
- procedural provisions of authorised international procurement agencies,
- regulations included in the underlying cooperation agreement (e.g. MoU),

- the status of projects of other participating nations or international organisations (for example, if Germany joins the cooperation project at a later date),
- current knowledge relating to commissioned or planned studies/research assignments (on a national or international level or from international organisations such as the NATO Industrial Advisory Group (NIAG) or the European Defence Agency (EDA)), and
- export campaigns associated with the cooperation activities which may require cross-ministerial coordination.

605. A certification strategy must be defined for aircraft, aeronautical equipment and nonessential equipment in coordination with the Bundeswehr Aviation Office – if possible, before the cooperation agreement is signed. This strategy must comprise basic certification procedures, a procedure for distributing certification activities among national aviation authorities (if necessary) and a procedure for mutual recognition of certifications. On this basis, specific plans for certification must be developed in the course of the project.

606. If the project-specific procedural regulations are developed before the cooperation agreement is signed, their draft version must be considered during the negotiations of the cooperation agreement. After the cooperation agreement has been signed, the individual procedural regulations must be adapted, if necessary, and submitted in accordance with section 6.3 “Defining project-specific procedural regulations”.

6.1 Decisions regarding CPM documents

607. The existing framework can be used, for instance, to determine whether the FFF document contains the national negotiating position at the beginning of the cooperation project or the result achieved on a multinational level.

608. The harmonised binational or multinational solution is based on the analysis of several alternatives. It is therefore usually sufficient to submit only one solution proposal. This similarly applies to activities during in-service use such as modifications that are agreed in international working groups. The selection decision can be made on that basis. It remains the budgetary document for the realisation phase.

609. The approval for service use must be granted in a similar fashion to national projects. It is limited, however, to products/subproducts fielded in the Bundeswehr. Multinational agreements on the establishment and maintenance of operational maturity must be considered accordingly.

6.2 Decisions regarding procedures, tasks and responsibilities

610. As a rule, procedures, tasks and responsibilities are defined by the basic procedure. In some cases, it may be necessary to deviate from the basic procedure. This can be due to

- procedures and decision-making structures of NATO, the EU or their agencies or other international procurement agencies (e.g. Organisation for Joint Armament Cooperation (Organisation Conjointe de Coopération en Matière d'Armement (OCCAR)),
- procedures and decision-making structures of international partners (e.g. lead nation),
- the delegation of tasks, competencies and responsibilities to the international procurement agency or
- the delegation of tasks, competencies and responsibilities to international partners.

611. The deviations must be documented. If a third party takes over tasks from CPM officials (such as the project manager), the delegated task must be clearly defined and the third party taking over that task must be expressly identified.

6.3 Defining project-specific procedural regulations

612. The project-specific procedural regulations are specified by documenting the necessary deviations from the CPM basic procedure.
Responsibility for this task lies with:

- the IPT leader (part 1 of the analysis phase),
- the BAAINBw (future) project manager,
- ministerial supervision, analysis phase part 1,
- ministerial supervision, analysis phase part 2, realisation and in-service use, and
- the authority issuing this regulation.

613. As a last step, the authority issuing this regulation must submit the project-specific procedural regulations to the state secretary for armaments for approval.

It is also possible to make adjustments in the course of the project, similar to the original procedure.

7 Comprehensive procedural elements

7.1 Project categories

701. The project category is determined on the basis of several evaluation criteria. The criteria and procedures for determining and changing the project category are defined in Type B General Publication B-1500/7. Based on the project category, the appropriate project sponsor level is determined. In the following table, the project categories are allocated to the appropriate levels/project sponsors.

Project category	Project sponsor/ preparatory meeting chair
A	State Secretary
B	Director-General for Equipment (groups I and IV) Director-General for Cyber/IT (groups II and III)
C	BAAINBw executive group
D	BAAINBw executive group

Table 1: Project categories and appropriate levels

702. The decision on the category of a project is initially taken in the Federal Ministry of Defence upon, or shortly after, the commissioning of the FFF, the FFF incl. solution proposal or the TAF incl. solution proposal. Excluded from this are projects for meeting unforeseeable urgent operational requirements (always project category C) and simplified procedure projects (always project category D).

Project categories are applied to programmes and products accordingly.

7.2 Responsibilities

703. This General Publication assigns roles to certain organisational units and decision makers in the process.

704. **Directorate-General for Equipment:** For group I and IV projects, functional supervision at FMoD level is exercised by the Directorate-General for Equipment. If necessary, it specifies the number of alternative solutions to be considered. With regard to solution proposals for category A and B projects of all groups submitted by BAAINBw, the Directorate-General for Equipment is in charge of assessing the importance for defence industry and armaments policy, involving the Directorate-General for

Cyber/IT for the Cyber/IT sub-portfolio. After approval by the Director-General for Equipment, the functional supervision activity of the Directorate-General for Equipment submits the solution proposals to the Directorate-General for Planning for final assessment from an overall planning perspective. Involving the Directorate-General for Equipment, the Directorate-General for Planning submits solution proposals of category A and B projects to the Chief of Defence so that he or she can make a selection decision.

705. Directorate-General for Cyber/Information Technology: For group II and III projects, functional supervision at FMoD level is exercised by the Directorate-General for Cyber/IT. For these projects, the Directorate-General for Cyber/IT commissions the Cyber and Information Domain Service Headquarters to establish an IPT. If necessary, it specifies the number of alternative solutions to be considered. The functional supervision activity processes solution proposals for category A and B projects submitted by BAAINBw. After approval by the Director-General for Cyber/IT, the functional supervision activity of the Directorate-General for Cyber/IT submits the solution proposals for category A and B projects to the Directorate-General for Planning for final assessment from an overall planning perspective. Involving the Directorate-General for Cyber/IT, the Directorate-General for Planning submits the solution proposals to the Chief of Defence so that he or she can make a selection decision.

706. Directorate-General for Planning: For groups I and IV, the Directorate-General for Planning commissions the Bundeswehr Office for Defence Planning to establish an IPT. For the selection decision, the Directorate-General for Planning prepares statements on whether the proposed solutions can be included in the medium-term planning, financial planning and planning implementation. Involving the Directorate-General for Equipment/the Directorate-General for Cyber/IT, the Directorate-General for Planning submits the solution proposals for category A and B projects of all groups to the Chief of Defence so that he or she can make a selection decision.

707. Directorate-General for Budget and Controlling: For category A and B projects, the Directorate-General for Budget and Controlling co-signs the final versions of the documents and submissions for approval by the Chief of Defence after they have been co-signed by the appropriate funds manager. The same applies to FFF if there is a requirement for stage 3 R&T funds.

708. Director-General of the Bundeswehr Office for Defence Planning/Chief of the Cyber and Information Domain Service: For category C and D projects, either the Director-General of the Bundeswehr Office for Defence Planning (groups I and IV), the Chief of the Cyber and Information Domain Service (group II) or both (group III) sign the FFF and make the selection decision. The Director-General of the Bundeswehr Office for Defence Planning approves initiatives as planning portfolio measures for groups I and IV. The Chief of the Cyber and Information Domain Service is responsible for group II. In group III, initiatives are approved jointly by the Chief of the Cyber and Information Domain Service and the Director-General of the Bundeswehr Office for Defence Planning.

709. Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) and subordinate agencies: BAAINBw or its subordinate agencies appoint an authorised representative (the future project manager) for the IPT in part 1 of the analysis phase. It also appoints the project manager/IPT leader from part 2 of the analysis phase onwards and in the analysis phase of the procurement procedure for off-the-shelf IT products. BAAINBw executes the contract award procedure, ensures the implementation of the project and performs materiel responsibility tasks to ensure operational maturity.

710. Chief of Defence: For category A and B projects, the Chief of Defence signs and approves the FFF and makes the selection decision.

711. Chiefs of services/persons in charge of the major civilian organisational elements/Commander of the Bundeswehr Joint Forces Operations Command: The Commander of the Bundeswehr Joint Forces Operations Command appoints an authorised representative in the analysis phase. The chiefs of services or the persons in charge of the major civilian organisational elements appoint authorised representatives for the IPT in all phases. In addition, they assume the in-service and supply responsibility for the products at their disposal. As far as IT products are concerned, the in-service and supply manager responsible for maintaining operational capability and readiness also performs the tasks of the IT service manager for operation.

712. Cyber and Information Domain Service Headquarters: The Cyber and Information Domain Service Headquarters carries out the user tasks for the Cyber/IT sub-portfolio, performs associated capability development activities and, in coordination with the Bundeswehr Office for Defence Planning, assesses group II and III initiatives. In part 1 of the analysis phase, it appoints the IPT leader. From part 2 of the analysis phase onwards, it has an authorised representative. In the analysis phase of the procurement procedure for off-the-shelf IT products, the Cyber and Information Domain Service Headquarters appoints the deputy IPT leader.

713. Bundeswehr Office for Defence Planning: The Bundeswehr Office for Defence Planning performs capability development activities and assesses group I and IV initiatives. In part 1 of the analysis phase, it appoints the IPT leader. From part 2 of the analysis phase onwards, it has an authorised representative.

714. Director-General of the Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw): The Director-General of BAAINBw appoints the (future) project manager and the programme manager. As far as category C and D projects are concerned, the appointment of the (future) project manager can be delegated to a BAAINBw director. Based on the results of the compliance demonstration and other findings, the Director-General of

BAAINBw issues the approval for service use for category A and B projects.[57] The Director-General of BAAINBw bears the materiel responsibility for operational maturity.

715. **Programme manager:** If several projects have been combined into a programme, the programme manager manages the programme in accordance with the mission specified in the programme handbook and the tasks, competence and responsibilities assigned to him or her.

716. **Project manager:** The project manager takes on the lead of the IPT from part 2 of the analysis phase onwards. The project manager has overall responsibility for the implementation of the project within the given performance, time and cost framework. In the phase of in-service use, he or she assumes the product-related responsibilities of the materiel manager for operational maturity. In IT projects, the project manager assumes, at the same time, the role of the service owner (see Annex 8.1 “Terms and definitions”) for newly implemented IT services. The project manager is responsible for granting the approval for service use for category C and D projects.

717. **Project sponsor:** The project sponsors chair the preparatory meeting at the final level for projects, programmes and products. Their decision-making competence extends the range of solutions available to the project/programme manager. By critically assessing the project/programme manager’s project-specific procedures and decisions they enhance the risk management quality of the project/programme. The project sponsors have overall responsibility for the risk management in their individual areas of responsibility and bring about decisions necessary for risk reduction/mitigation to support the project/programme manager. If a project is part of a programme, the project sponsor involves the relevant programme manager.

7.3 Decisions and submissions

7.3.1 Signature of Customer Product Management documents

718. FFF for category A and B projects are signed by the Chief of Defence. FFF for category C and D projects and FFF(S) are signed by the Director-General of the Bundeswehr Office for Defence Planning (groups I and IV), by the Chief of the Cyber and Information Domain Service (group II), or by both (group III).

719. Selection decisions for category A and B projects are taken by the Chief of Defence on the basis of the submitted solution proposals. He or she also signs the relevant documents. Solution proposals developed for category C and D projects are submitted by BAAINBw to the Bundeswehr Office for Defence Planning (groups I and IV) or to the Cyber and Information Domain Service Headquarters (groups II and III) for assessment. Selection decisions are taken by the Director-General

[57] This task can be delegated to a BAAINBw director.

of the Bundeswehr Office for Defence Planning (groups I and IV), by the Chief of the Cyber and Information Domain Service (group II), or by both (group III).

Groups	Project category	CPM document	Signatory
I/IV	A	FFF	Chief of Defence
		Selection decision	Chief of Defence
		Approval for service use	BAAINBw Director-General
	B	FFF	Chief of Defence
		Selection decision	Chief of Defence
		Approval for service use	BAAINBw Director-General
	C	FFF	Director-General of the Bundeswehr Office for Defence Planning
		FFF(S)	Director-General of the Bundeswehr Office for Defence Planning
		Selection decision	Director-General of the Bundeswehr Office for Defence Planning
		Approval for service use	Project manager
	D	FFF	Director-General of the Bundeswehr Office for Defence Planning
		Selection decision	Director-General of the Bundeswehr Office for Defence Planning
		Approval for service use	Project manager
II/III	A	FFF	Chief of Defence
		Selection decision	Chief of Defence
		Approval for service use	BAAINBw Director-General
	B	FFF	Chief of Defence
		Selection decision	Chief of Defence
		Approval for service use	BAAINBw Director-General
	C	FFF	Group II: Chief of the Cyber and Information Domain Service Group III: Chief of the Cyber and Information Domain Service and Director-General of the Bundeswehr Office for Defence Planning
		FFF(S)	Group II: Chief of the Cyber and Information Domain Service Group III: Chief of the Cyber and Information Domain Service and Director-General of the Bundeswehr Office for Defence Planning

Groups	Project category	CPM document	Signatory
		Selection decision	Group II: Chief of the Cyber and Information Domain Service Group III: Chief of the Cyber and Information Domain Service and Director-General of the Bundeswehr Office for Defence Planning
		Approval for service use	Project manager
	D	FFF	Group II: Chief of the Cyber and Information Domain Service Group III: Chief of the Cyber and Information Domain Service and Director-General of the Bundeswehr Office for Defence Planning
		Selection decision	Group II: Chief of the Cyber and Information Domain Service Group III: Chief of the Cyber and Information Domain Service and Director-General of the Bundeswehr Office for Defence Planning
		Approval for service use	Project manager

Table 2: Signature of CPM documents

720. The tasks, responsibilities and involvements in the preparation, staffing, and signing/approval of FFF change documents and selection decision amendment documents arise from the specifications for the original documents in accordance with Table 2.

721. The Bundeswehr Office for Defence Planning/the Cyber and Information Domain Service Headquarters recognise the simplified procedure initiative as a requirements document. It is submitted to BAAINBw after signature.

The extended statement of work is approved and signed by the relevant division chief at BAAINBw. This gives the extended statement of work a budgetary character and establishes readiness for budgeting and contract award.

For category A and B projects, the approval for service use is issued by the Director-General of BAAINBw. This task can be delegated to a BAAINBw director. For category C and D projects, the approval for service use is issued by the project manager.

7.3.2 Submissions to the German Bundestag

722. Submissions to the German Bundestag include:

- EUR 25 million submissions to the Budget Committee,
- submissions to the Budget Committee if costs of current projects increase by more than 15 %,
- submissions to the Budget Committee if the discontinuation of projects has financial implications (including reduced financial burdens) exceeding EUR 25 million, and

- reports requested by the Budget Committee.

723. After approval by the executive group of the Federal Ministry of Defence, the submissions are transmitted from the Directorate-General for Budget and Controlling via the Federal Ministry of Finance to the Budget Committee. Federal Ministry of Finance submissions/Budget Committee printed papers are transmitted to the Defence Committee for decision/information, including a cover letter of the Directorate-General for Budget and Controlling.

724. The executive group of the Federal Ministry of Defence provides the Defence Committee with the armaments report and other reports as requested.

Submissions with information on financial feasibility must bear a note indicating when the Directorate-General for Budget and Controlling has co-signed the document or expressed a dissenting opinion.

7.4 Risk management and risk reporting

725. Risks are potential events that may have negative impacts on target achievement (performance, time or finances). Problems are risks that have actually occurred and that have a negative impact on target achievement. Joint consideration of risks and problems facilitates the efficient achievement of targets. Risks and problems are a natural part of programme, project, and in-service support management. They are thus communicated openly within projects, between projects and across all levels.

726. Risk management is a continuous, forward-looking process in project and in-service support management. It does not refer to a specific date. Risk management begins as early as in the integrated planning process and extends over all phases of CPM. It forms an integral part of project and in-service support management. Risk management is considered successful if projects, products and services are provided as commissioned in terms of performance, time and finances. Risk management has the following specific targets:

- identify risks at an early stage and in a forward-looking manner,
- analyse and assess these risks in terms of probability of occurrence and potential extent of damage, and
- identify, prioritise (if necessary) and initiate suitable measures for mitigating, and ideally avoiding, disruptions.

In this context, the principle of proportionality between costs and benefits must be observed. Risk management is specified in Type A General Publication A-1500/30.

7.5 Programme management

727. Activities aimed at developing and procuring armament articles in accordance with this General Publication are organised as projects. The project managers independently plan and control their project, taking into account specifications made by the executive group and interfaces with other projects. In some cases, however, there are not only interfaces but significant system interrelations or system dependencies between two or more projects. Combining such otherwise independent projects to form a programme to be managed by a programme manager is worth considering.

728. The project sponsor of the project with the highest project category decides on the establishment of a programme.

729. For establishing a programme, the Director-General of BAAINBw appoints the programme manager and approves the programme handbook to be prepared by the programme manager. This handbook must describe the programme manager's tasks, competence and responsibilities, the associated projects, the programme order, the competent bodies exercising functional supervision and other framework conditions as required. In order to implement the programme order, the programme manager has directive authority over the project managers with regard to project contributions to the programme.

730. Even if a project is (fully[58]) integrated into a programme, the project manager will still have overall responsibility for the project, in particular for achieving the project target as specified by the programme manager!

Depending on the type of system interrelations, two types of programmes can be distinguished.

7.5.1 System networks

731. System networks in programme management consist of two or more projects that are interrelated in terms of contents and implemented to close the same capability gap at different levels.

732. There are two types of system networks in programme management. Firstly, a complex capability can be described in one requirements document but be realised by means of several individual projects. Secondly, already existing projects can be combined into a programme across all phases in order to achieve harmonisation of projects and realisation targets.

733. The programme manager's directive authority over project managers is specified for each programme in the programme handbook. The programme manager of a system network programme manages the programme in accordance with the programme order as defined in the programme handbook and supports the project managers. The programme manager's tasks also include risk management at programme level and representation of the programme during the preparatory

[58] A project is fully integrated into a programme when all parts of the project make contributions to the superior-level programme. Alternatively, the project provides the programme only with partial capabilities.

meeting.[59] The project category is determined individually for each programme but is at least on the level of the project with the highest project category.

734. The programme manager establishes guidelines for the registration of required budget funds from a superior programme perspective, which are to be implemented by the project managers.

735. Other responsibilities in accordance with the principle for the allocation of tasks, competencies and responsibilities are specified for each programme and documented in the programme handbook.

736. If the projects that have been combined into a programme are subject to different functional supervision activities, the latter must agree on the activity that will be responsible for the functional supervision over the programme.

7.5.2 Integrated systems

737. Integrated systems consist of a very heterogeneous project landscape because of their comprehensive approach (they include sensors, weapons, and command and control systems for information processing). A key characteristic of integrated systems is that in many cases only parts of the associated projects contribute to the integrated system. A weapon system's contribution to an integrated system (for example as a weapon) can thus, for instance, only be a secondary task.

738. The tasks of an integrated system programme manager include risk management at programme level and representation of the programme during the preparatory meeting.[60] The project category is determined individually for each programme but is at least on the level of the project that is fully integrated and has the highest project category.

739. Ministerial supervision for programmes of this type is assigned on the basis of the projects that are fully integrated into the programme or on the basis of the organisational unit of the programme manager. Functional supervision over projects that are not fully integrated into the programme remains unaffected by this.

7.6 Treatment of disruptions in the course of a project

740. **Analysis phase (part 2):** Disruptions in the course of a project in part 2 of the analysis phase must be reported to the project sponsor as part of regular risk reporting or when necessary, including a recommendation for further action. If a project is fully embedded in a programme, the project manager will submit reports via the programme manager.

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741. **Realisation and in-service use phase:** Changes during realisation or in-service use may result from:

[59] The project manager's responsibility for risk management at project level remains unchanged.
[60] The project manager's responsibility for risk management at project level remains unchanged.

- changes to requirements resulting from lessons learned on operations, which necessitate the amendment of the budgetary selection decision document in terms of performance[61], time and/or costs,
- disruptions in the course of a project, as a result of which tolerance limits specified in the Federal Budget Code are exceeded, making it necessary to adapt the selection decision document in terms of performance, time and/or costs, or
- the availability of new, innovative products, which result in a significant improvement of performance and/or capabilities and which necessitate, in the individual case, the amendment of the budgetary selection decision document in terms of performance, time and/or costs,

742. In accordance with the guidelines for risk reporting, the project manager reports disruptions in the course of a project to the project sponsor. If a project is fully embedded in a programme, the project manager will submit reports via the programme manager. If a project is not fully embedded, the programme manager must be informed. Intermediate levels and portfolio management may comment on the reports. Together with the preparatory committee, the project sponsor decides on the further course of action and commissions the preparation of supplementary solution proposals to the selection decision amendment document, if required.

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743. The tasks, responsibilities and involvements in the preparation, staffing, submission and signing of supplementary solution proposals arise from the specifications in accordance with section 2.1 “Analysis phase”.

7.7 Project elements

744. Project elements are the different areas in which a project is processed or the use of a product is controlled. Depending on the type of project or product, certain project elements do not need to be considered when there are no project-specific requirements in the respective area.

Compliance with requirements in the processing areas must be taken into account when preparing solution proposals and needs to be verified, as applicable, during integrated compliance demonstration activities.

745. There are 13 project elements:

- technical and economic elements,
- command/operation,
- organisation,
- personnel/training,
- logistics,

[61] New requirements, which make it necessary to adapt performance characteristics, must be documented in an FFF change document first.

- infrastructure,
- occupational safety,
- information security/IT architecture/IT standardisation and data protection,
- military security,
- traffic safety (including approval and flight safety)
- ergonomics,
- Bundeswehr Geoinformation Affairs, and
- environmental protection and hazardous cargo transportation.

7.7.1 Technical and economic elements

746. The project element “Technical and economic elements” comprises all supporting measures and processes aimed at providing and maintaining operational products and services with due regard to current technology, relevant legal requirements, cost-efficient procedures, and budget and planning aspects. It also comprises the consistent application of standards with the objective of interoperability and risk reduction. This also includes best practice guidelines of the European Defence Standards Reference System (EDSTAR) and obligations that arise from the NATO Standardisation Agreement (STANAG) ratified by Germany. In addition, design safety of ammunition and firing safety provisions must be observed to implement the protection and safety requirements specified as part of the self-regulation competence. The same applies to requirements for the safety of weapons and ammunition in terms of design and material and for ammunition insensitiveness, which have been agreed on the international level and ratified by the Bundeswehr.

7.7.2 Command/operation

747. Command comprises the purposeful employment of forces with regard to space, time and information. The project element “Command/operation” includes the adaptation, amendment and revision of command and control regulations, operational doctrine and procedures.

7.7.3 Organisation

748. In the “Organisation” project element, all measures for changing organisational structures and procedures of military and civilian agencies as well as for establishing/disbanding military and civilian agencies are consolidated. This also includes the preparation of basic organisation documents, if necessary. Organisational measures may also result from other project elements. Basic organisation documents relating to infrastructure, personnel or training requirements must, for example, be finalised in good time to leave sufficient room for the development and implementation of corresponding measures.

7.7.4 Personnel/training

749. The “Personnel/training” project element must describe all measures required for ensuring the availability of personnel of the future users/operators for the realisation phase and the phase of in-service in the numbers required and with the necessary qualification (including the required training organisation and material, including, if necessary, live-fire training).

7.7.5 Logistics

750. The “Logistics” project element comprises the definition of all essential product- and service-related requirements for planning, realising and controlling logistic assets and procedures on operations, during routine home base duty activities, training and exercises, including material documentation, maintenance and production, inspections, materiel management, technical logistic support services, logistic IT procedures, preservation, packaging, transportation, intended service life, and integrated logistic support (ILS)/logistic support analysis (LSA), taking into account required rights of use and licences.

751. Essential logistics requirements must be considered early on in the preparation of the FFF, FFF(S) or FFF incl. solution proposal, involving competent specialist authorities. In this process, it must be ensured that the solutions/services to be procured in accordance with this General Publication fit in seamlessly with the Bundeswehr logistics system, including SASPF. Implementation guidelines must be laid down in a project-related logistic concept that is compatible with the Bundeswehr logistics system. This concept outlines the logistic framework for the realisation and in-service use of products and services, including the requirements for the representation in IT systems. It must be analysed early on at which points industry services may be purposefully integrated into the logistic process.

752. The development of the “Logistics” project element is detailed in Type C1 Special Publication C1-1500/3-7017 “Ausplanung und Ausgestaltung des Projektelementes Logistik gemäß A-1500/3” (detailed planning and development of the “Logistics” project element in accordance with A-1500/3). Project-related requirements from the “Logistics” project element that affect other project elements must be documented and tracked in these project elements.

7.7.6 Infrastructure

753. Infrastructure requirements resulting from the delivery of new armament articles must be specified in terms of quality and quantity by means of an infrastructural requirement document. The requirement must be approved by the highest user authority and coordinated on the basis of a case-by-case decision with the Federal Ministry of Finance. It is in the interest of the project manager or authorised representative of the user/operator in the IPT to identify and assess infrastructural aspects in good time as they have a considerable influence on delivery planning. The infrastructure procedure is detailed in Type C Special Publication C-1800/121 “Infrastrukturbearbeitung” (infrastructure

processing). In the “Infrastructure” project element, all infrastructure requirements related to the intended use of a product, its preventive and corrective maintenance, and training and exercise operations must be addressed. All infrastructural elements, including training facilities (for example, firing ranges) and logistic facilities, that directly or indirectly form a basis for the intended employment of a product in the phase of in-service use must be considered across all locations. This also applies to the estimation and planning of resources in terms of personnel, material, POL etc. in order to ensure that the operation of the required infrastructure is lawful and in accordance with the intended purpose. In the FFF, the “Infrastructure” project element must be examined in terms of scope, time and costs, and infrastructure requirements must be defined, if applicable. In addition, the earliest possible provision dates must be stated, taking into account the time required for the infrastructural procurement procedure. Infrastructure requirements must thus be identified early on and assessed as part of the initiative, involving the authorities of the affected major organisational element(s) that are responsible for pre-infrastructural matters (assistance provided by the Federal Office of Bundeswehr Infrastructure, Environmental Protection and Services (BAIUDBw) is not affected by this), and as part of the analysis phase (part 1 and 2), involving BAIUDBw. This must be done independently of the realisation phase.

754. In the realisation phase, delivery planning must be coordinated with infrastructure planning. The risk related to achieving operational maturity on a specified date must be assessed.

The approval for service use must include a clear statement on the completion/availability of the infrastructure critical to operational maturity.

7.7.7 Occupational safety

755. In the occupational safety project element, measures for ensuring and implementing statutory requirements and Bundeswehr regulations regarding occupational safety and health (for example radiation protection, chemical safety and technical safety), firing safety, ship safety, hygiene and infection protection must be developed.

7.7.8 Information security, IT architecture/standardisation and data protection

7.7.8.1 Information security

756. Information security as part of the project element “Information security, IT architecture/standardisation and data protection” comprises all measures for ensuring the confidentiality, integrity and availability of information and personal data and, if required, the unlinkability, transparency and intervenability of information and data processing and transmission for group II to IV projects to the necessary/required extent. The planning, definition and implementation of all activities relevant to information security must be incorporated into a project-related information security concept. Such a concept must be prepared for each solution proposal of group II to IV projects. If it is intended to proceed without a project-related information security concept, this must be

coordinated with the German military Security Accreditation Authority for IT systems (DEUmilSAA). The concept must be updated in step with the project's progress and during in-service use. Before the product is released and the approval for service use is granted, the concept must be co-signed by DEUmilSAA.

757. In accordance with the IT strategy for the FMoD area of responsibility, accreditation by DEUmilSAA is required. Further details are laid down in Type A General Publication A-960/1 "IT-Sicherheit in der Bundeswehr" (IT security in the Bundeswehr).

7.7.8.2 IT architecture/standardisation

758. In addition, it must be taken into account that the project can be integrated into the system architecture of the Bundeswehr IT system. To this end, the following must be observed:

- project-specific targets derived from the system architecture of the Bundeswehr IT system,
- project-specific targets defined by the Bundeswehr IT system architect and the IT service designer resulting from the system architecture and the IT service design/IT service management of the Bundeswehr IT system,
- IT standardisation requirements for group II to IV projects, guidelines for improving interoperabilty, intraoperability and conformity with Federated Mission Networking,
- (statutory) requirements regarding the availability and use of the electromagnetic spectrum, and
- whole-of-government IT requirements, if any.

759. These requirements must be taken into account when preparing solution proposals, and compliance must be checked during integrated compliance demonstration. Relevant evidence must be provided to the Bundeswehr IT system architect and IT service designer.

7.7.8.3 Data protection

760. If the products and services to be realised are designed to process personal data during in-service use, a data protection concept must be prepared in order to ensure

- the lawfulness and transparency of processing,
- the proper use of IT systems, and
- technical and organisational measures required for the protection of personal data.

761. The data protection concept must be prepared as early as possible in step with the project's progress. At the latest, it must be finished when the approval for service use is granted. Further details are laid down in Type A General Publication A-2122/4 "Fachaufsicht" (functional supervision).[62]

[62] As significant changes to the data protection law took effect on 25 May 2018, A-2122/4 is currently being thoroughly revised.

7.7.9 Military security

762. Military security is part of the “Ensuring Military Intelligence” performance process. Military security aims at combating attacks by antisecurity forces and is ensured by physical security, counterintelligence and security protection measures (protection of classified material). Physical security covers all personnel, physical and organisational measures to ensure military security. Counterintelligence comprises all measures for which the Military Counterintelligence Service is responsible within its statutory tasks. This also includes contributions to personnel and physical security measures as well as preventive personnel counter-sabotage measures.

7.7.10 Traffic safety (including flight safety)

763. Traffic safety encompasses all activities, procedures, arrangements and measures that ensure the safe use of means and routes of transport by land, water and air. This also includes operating licence and approval requirements.

7.7.11 Ergonomics

764. Ergonomics, including software ergonomics, comprises all requirements for the commandability, operability, usability and maintainability of a product with the objective of achieving the highest possible operational effectiveness under given operational conditions. Legal requirements must be observed.

7.7.12 Bundeswehr Geoinformation Affairs

765. In this project element, the required geoinformation support (GeoInfo support) must be planned and presented (subareas: GeoInfo data collection, GeoInfo production, GeoInfo data management, GeoInfo advisory services as well as positioning, navigation, and timing). As part of Bundeswehr procurement and in-service support management, this specifically includes the provision of

- GeoInfo data and products,
- advice and support in the form of analyses, predictions and geoscientific expertise regarding geographical phenomena and environmental conditions (geospatial factors), including their implications,
- advice on positioning, navigation, and timing to ensure reliable availability of assets and procedures, and
- advice on data formats, interfaces, transmission bandwidths, storage requirements as well as geographic information system functionalities and software.

The Bundeswehr Geoinformation Centre is the central point of contact for all questions relating to GeoInfo support.

7.7.13 Environmental protection and hazardous cargo transportation

766. The project element “Environmental protection and hazardous cargo transportation” comprises the assessment of any adverse environmental effects generated during production, in-service use, transfer and disposal of products, with special consideration of public sector waste disposal obligations, including training, operation, logistics and infrastructure arrangements. In this context, all environmental protection matters associated with the product and all existing regulations prohibiting or restricting the use of substances and preparations that may result in obsolescence must be checked. This project element also comprises statutory and military provisions for the transportation of hazardous materials.

8 Annexes

8.1 Terms and definitions

Approval

Approval is the permission for a product or process to be placed on the market or used for stated purposes or under stated conditions.

Architecture project

Architecture projects implement common, basic and infrastructural services to support the further development of the Bundeswehr IT system with a view to achieving the system architecture objective. Examples of this include e-mail, public key infrastructure (PKI) and electronic files.

Available products

Available products refer to commercial off-the-shelf products as well as products that have completed development and are ready for manufacture. As a rule, these are CGM products. It may be necessary to make adjustments to applicable laws and regulations (e.g. concerning certification, occupational health and safety and environmental protection). The project manager determines whether a product is (commercially) available.

Bundeswehr capability situation

The Bundeswehr capability situation is the central situation, analysis and control tool of Bundeswehr capability development and creates the conditions needed for portfolio management in the Bundeswehr. In capability analysis, the target capability profile and the actual capability profile are compared. Then the optimised path leading from the actual to the target capability profile over time is described in all planning categories, duly taking into account the necessary resources, including the foreseeable required budget funds.

Bundeswehr IT system

The Bundeswehr IT system is the integrated network of all information and communications systems used in the Bundeswehr to support all processes of the FMoD area of responsibility. It is a comprehensive system and encompasses personnel, organisational, infrastructural and materiel elements.

The Bundeswehr IT system is a Bundeswehr-wide information and communication network interlinking all C2-relevant IT elements of facilities, platforms and weapon systems and providing IT services through IT service providers.

“Encapsulated IT systems” are another component of the Bundeswehr IT system. For functional or legal reasons, they do not use IT services of, and do not provide them to, the Bundeswehr-wide information and communication network.

Exceptions are possible, for instance, for “encapsulated IT systems” of the Military Counterintelligence Service, where merely tunnelled communication services (virtual private network (VPN)) of the central information and communication network are used, which are, however, logically self-contained.

Capability delta

Capability deltas describe the differences between the (target) capability profile and the (actual) capability profile over time. The required degree of fulfilment of the functional modules can be derived from the (target) capability profile. The major organisational elements construe the current and future degree of fulfilment from the operational capability of the resources provided for mission accomplishment (actual (capability profile)). Existing capability gaps or excess capabilities can be identified, recorded and assessed as capability deltas.

Certification

Certification means that a qualified third party provides written assurance that a certain product, process or service complies with defined requirements.

Change request management

In change request management, all errors, problems and resulting technical or functional changes are documented and assessed as to their priority and impact before a decision is made on a further course of action for the project. Reasons for error/problem reports include: system errors, lack of system functionality, newly identified system dependencies or misunderstandings in the contract.

To ensure the flexible system structure necessary for IT projects that must meet constantly changing requirements, a project- or programme-specific change request management should be established in accordance with the IT Infrastructure Library (ITIL), determining the further course of action in coordination with the areas affected.

CPM documents

Findings, important decisions and further courses of action are recorded in CPM documents in accordance with the standards laid down in this Type A General Publication. Documents with comparable contents prepared by partners may be declared CPM documents (“cover sheet procedure”). The following are CPM documents:

- capability gap and functional requirement document (FFF),
- capability gap and functional requirement document (fast-track initiative) (FFF(S)),
- capability gap and functional requirement change document (ÄzFFF),
- selection decision document (AWE),
- selection decision amendment document (AAWE), and
- approval for service use (GeNu).

Defence research and technology

One purpose of defence research and technology (R&T) is to provide the necessary scientific and technological knowledge and skills in all relevant technologies to facilitate task-oriented, intelligent and economical equipment decisions. Another is to recognise, in good time, the significance of new technologies for threats to and capabilities of the Bundeswehr. The results are intended to provide analysis and assessment capabilities needed to make equipment decisions, enhance national security measures in a whole-of-government approach, identify new technologies to incorporate into Bundeswehr capabilities, suggest new solutions, and swiftly make emerging technologies ready to go into production. They include new system concepts and their evaluations and contribute both to a European research and technology base and to multinational cooperation within NATO. They also help to preserve Germany's cooperation capability and defence technology competence.

Further details are laid down in Type A General Publication A-2711/1 VS-NfD (Restricted) "Wehrtechnische Forschung und Technologie" (defence research and technology).

Economic efficiency

The principle of economic efficiency calls for finding the best trade-off between intended purpose and funds to be employed (resources). This principle comprises the principles of economy and efficiency. The principle of economy (minimum principle) calls for the achievement of a particular result with the least possible expenditure of resources. The principle of efficiency (maximum principle) calls for the achievement of the best possible result with a particular expenditure of resources. When identifying and meeting the Bundeswehr demand, the factors determining cost and performance must be continuously recorded and assessed in an iterative process with the aim of increasing economic efficiency.

Equipment situation

The equipment situation involves the armaments, IT and in-service use situation and provides information for portfolio management at the level of projects, products and services. The resulting situation picture constitutes the basis for comprehensive analyses. In addition, control options and allocations of resources are assessed and initiated on that basis.

The equipment situation is used to collect, prepare and present information on projects, products and services in terms of costs, performance and time, including possible deviations. The Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support is responsible for updating the equipment situation.

Functional requirement

A functional requirement is the description of a capability that is required for closing a capability gap. This description focuses on the purpose and does not, in any way, restrict the choice of possible solutions or approaches.

The functional requirement includes a presentation of the capability-related performance parameters, including all functionalities and uses, as well as other characteristics derived from the terms of operation and use (target service use profile). All performance parameters and characteristics must be weighed against one another in the prioritised requirements catalogue and underpinned by clearly defined and objectively verifiable criteria. These criteria form the basis for the evaluation of solution proposals in the CPM analysis phase as well as of the chosen solution in the realisation phase, especially during trials and operational suitability tests.

This involves consistent requirements management using tried and tested data processing procedures throughout all CPM phases, if possible, but at least during the analysis and the realisation phase.

Functional supervision

Functional supervision is the comprehensive supervision of both the lawfulness of actions (their compliance with laws and regulations) and their expediency (the way tasks are performed). This means that the subordinate organisational unit is also subject to functional control by the supervisory authority.

Further details are laid down in Type A General Publication A-500/100 “Fachaufsicht” (Functional supervision). This publication specifies that functional supervision is one of the key elements of Federal Administration management and supervision. In accordance with the Rules of Procedure of the FMoD, Chapter 2.2., the competent organisational units carry out independent functional supervision. The organisational unit that has primary technical responsibility for the relevant area decides what tool(s) it uses for exercising effective and efficient functional supervision.

Future project manager

See “Project manager”.

Government Quality Assurance

Government Quality Assurance comprises governmental monitoring activities to ensure that contractors perform their quality assurance measures as laid down in the contract. The right to monitor the measures arises from the contractually agreed quality assurance requirements if they have been agreed on the basis of the Allied Quality Assurance Publications (AQAP).

In NATO usage, Government Quality Assurance (GQA) refers to AQAP-based governmental quality monitoring activities. The form of Government Quality Assurance practiced in Germany is described in § 12 of the Conditions Concerning Contracts for Supplies and Services (VOL), Part B: General Terms of Contract for the Provision of Supplies and Services.

After coordination, project management and the competent government quality assurance authority determine whether and, as the case may be, to what extent contract- or project-related quality reporting on technical quality requirements of products/services will be established.

Group of cases

All events/projects are classified in terms of their relationship and relevance to the Bundeswehr IT system by means of four groups of cases and basic classification criteria. Classification is determined by the performance areas defined in the IT strategy for the area of responsibility of the FMoD. Allocation is based on the system agreed by the Directorate-General for Planning and the Directorate-General for Cyber/Information Technology.

Group of cases	Subject	Competent authority/Point of contact for BAAINBw
I	Measures without IT component	Bundeswehr Office for Defence Planning
II	Measures (with IT component but without military capabilities involving IT), including measures of the Bundeswehr Geoinformation Service for IT services in the performance areas of common capabilities and agencies at home and abroad	Cyber and Information Domain Service Headquarters
III	Measures (with IT component for military capabilities involving IT), including measures of the Bundeswehr Geoinformation Service for IT services in the performance areas of wide-ranging connections/networking, static/deployable facilities, and mobile elements	Cyber and Information Domain Service Headquarters
IV	Measures with IT component (for military capabilities involving IT), this means platform-specific and integrated IT	Bundeswehr Office for Defence Planning

Table 3: Definition of groups of cases

Depending on the group of cases, procedures and responsibilities in the analysis phase may be split between the area of Planning and the areas of Cyber and Information Domain Service and Cyber/Information Technology. In this Type A General Publication, group II and III projects are referred to as “IT projects”. Further details on the groups of cases are specified in the “Executing Integrated Planning” performance process. Section 7.3.1 deals with the authorisation to sign CPM documents in the different groups of cases.

Hospital/institute-specific medical equipment

Medical equipment specific to hospitals or institutes is primarily commercially available medical equipment used in defined agencies and facilities of the Bundeswehr Medical Service (see section 2.3.6).

In-service and supply responsibility for the maintenance of operational capability and readiness

The in-service and supply responsibility[63] refers to the materiel-related aspects of the operational capability, operational readiness and sustainability of units and agencies in a major organisational element.

The in-service and supply responsibility lies with the person leading the major organisational element. As far as IT services are concerned, it also includes the tasks of the “IT service manager for operation”. For this purpose, personnel, material, infrastructure, organisational, procedural and operational resources are available as required by the mission. The in-service and supply responsibility also comprises the following: the proper use of the operational products given to the major organisational area for use, ensuring the training and sustainment training required for their operation, and the use of services associated with the products. The responsibility ends with the segregation of materiel or its final transfer to another major organisational element.

In-service control

In-service control serves to restore and maintain the operational maturity of products and services. Its purpose is to ensure that products and services in use are kept operationally mature, using all the materials, infrastructure, equipment, documentation, procedures, services and personnel that may be required, on the basis of the applicable documents as well as legal and ministerial directives.

In-service control includes technical logistic management, control of all relevant project elements and product-related funds management. Technical logistic management plans, controls and monitors

- the provision, maintenance and processing of product-related materiel documentation, logistic master data and materiel data,
- product monitoring,
- product modifications and product improvements,
- configuration management, and
- the provision of product-related resources.

In-service use

In-service use is the use of products or services in accordance with their intended purpose.

The period of use is called “phase of in-service use”.

Initiative

Initiatives are substantiated requests from commands/offices of the major organisational elements and from contingents that point out a need for action to remove capability deltas.

[63] See also C1-1500/0-7020.

They describe the intended adaptation or development and provide specific information about schedules and financial planning (if possible).

Integrated compliance demonstration

Integrated compliance demonstration is the combination – in terms of place, time or contents – of contractor verification activities with operational (suitability) tests performed by the customer, or joint conduct of product suitability and contract compliance tests/trials.

Integrated logistic support

Integrated logistic support (ILS) is a process extending over the entire life cycle of a product, in which all product-related logistic considerations are combined in a holistic approach to ensure optimum logistic support of the product at reasonable costs. The ILS process is not only an integral part of the analysis and the realisation phase for the purpose of shaping the project element of logistics but also of the phase of in-service use.

Integrated Planning Process/Executing Integrated Planning

Integrated planning is the executive group's central tool for the Bundeswehr-wide prioritisation of demand and its inclusion in the budget. It thus provides the means to set the future course of capability development in the Bundeswehr. The "Executing Integrated Planning" performance process enables a strategic and innovation-oriented top-down control of capability development in the Bundeswehr by introducing control tools, by integrating comprehensive portfolio management and by taking into account the capability domains of reconnaissance, command and control, effect and support as the defining basis for planning activities.

This performance process increases the integration capability of the strategic definition of objectives by introducing the planning directive as an annual, central and constitutive document and by operationalising multinational guidelines to ensure a national capability development that is in line with NATO and EU requirements. By consistently involving specialist planning activities and subordinate agencies and by formalising cooperation management, the process allows for a Bundeswehr-wide, consistent prioritisation across planning categories, thus consolidating overall planning requirements. Thanks to the flexibility of the process as regards the involvement of the planning categories, contributions from specialist planning activities are based on demand and have the necessary planning depth.

Integrated project teams

Integrated project teams (IPTs) are established to accomplish the tasks at hand throughout the life cycle of a project/product. The teams are headed by IPT leaders, who have the overall responsibility and exclusive decision-making authority. In the analysis phase, the IPT leader and the deputy IPT leader take decisions by mutual agreement when it comes to the procurement procedure for off-the-shelf IT products. Ministerial supervision over IPT task performance is specified in section 7.2 "Responsibilities".

As a general rule, the following representatives are IPT members:

- part 1 of the analysis phase (before the FFF or FFF(S) is signed):
  + Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters (IPT leader),
  + Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (future project manager),
  + potential users/operators (authorised representatives),
  + trade and industry, if required and permitted by law;
- part 2 of the analysis phase (after the FFF or FFF(S) has been signed):
  + Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (IPT leader),
  + Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters,
  + potential users/operators (authorised representatives),
  + trade and industry, if required and permitted by law;
- analysis phase (procurement procedure for off-the-shelf IT products):
  + Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (IPT leader),
  + Cyber and Information Domain Service Headquarters (deputy IPT leader),
  + Bundeswehr Office for Defence Planning (in coordination with the Cyber and Information Domain Service Headquarters),
  + potential users/operators (authorised representatives),
  + trade and industry, if required and permitted by law;
- Realisation phase:
  + Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (IPT leader),
  + Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters (if required),
  + future users/operators (authorised representatives),
  + trade and industry (prior to contract award only if permitted by law);
- phase of in-service use:
  + Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (IPT leader),
  + Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters (if required),
  + users/operators (authorised representatives),

+ trade and industry, if required and permitted by law.

Depending on the project, further stakeholders of the Bundeswehr are involved (for example: Federal Office of Bundeswehr Infrastructure, Environmental Protection and Services for infrastructure measures, Federal Office of the Bundeswehr for Military Aviation for systems that are subject to certification, Bundeswehr Officer for Design Safety of Ammunition/Firing Safety for new weapons/ammunition, or Bundeswehr Joint Forces Operations Command for fast-track initiatives for operations). In-house companies may be involved as well. If a project, a product or an aspect of its future use is classified “VS-VERTRAULICH” (CONFIDENTIAL) or higher, the Federal Office of Military Counter-Intelligence must always be informed as part of personnel and physical security measures. In addition, the Federal Office of Military Counter-Intelligence may be asked for advice even if projects have a lower security classification.

In coordination with the IPT leader, the stakeholders concerned ensure that the required assistance is provided. In the case of equipment for more than one major organisational element, the (potential/future) users/operators may choose to appoint a joint representative for the IPT. He or she will make sure that other users/operators are appropriately included.

For category C and D projects, the formal establishment of an IPT is optional. The consultation of all parties involved (as in an IPT), however, must be ensured. Several minor projects may be combined in one IPT.

IT project

IT projects are all projects that serve the purpose of realising the Bundeswehr IT system (see Bundeswehr IT system definition). In this publication, group II and III projects are referred to as “IT projects”.

IT service

An IT service is a service provided by means of IT in support of Bundeswehr capabilities or processes. See also “service owner”.

IT service manager for operation

The IT service manager for operation (IT-SVEB) has the same tasks as the in-service and supply manager for the maintenance of operational capability and readiness. An IT-SVEB must be specified for each IT service. Their tasks are described in Type B2 General Publication B2-940/0-0-4 “IT-Servicekatalog Management” (IT Service Catalogue “Management”).

Key technology

From an FMoD perspective, national key defence technologies are technologies that are required to be available in Germany for reasons of foreign, security and defence policy.

Two criteria have to be applied in order to verify whether these reasons exist:

- National sovereignty must be guaranteed by ensuring strategic security of supply during the establishment, preservation and further development of core military capabilities, using key technologies: Defence technologies should be available in Germany in essential capability areas (no dependence on imports/supplies).
- The ability to take action in matters of foreign and security policy must be safeguarded. Germany's influence in the EU, NATO and throughout the world regarding security policy is largely based on the efficiency of the German defence industry and international demand for German defence technologies and materiel. Collaborating in development, procurement and in-service support projects and, in some cases, exporting selected key technologies and defence products also defines Germany's position as an international partner in security policy matters.

These national key defence technologies are defined in the German Government Strategy Paper on Strengthening the German Defence Industry, dated 8 July 2015.

If national key defence technologies represent essential security interests of the Federal Republic of Germany, it is generally necessary to verify whether the provisions of Art. 346 paragraph 1(b) TFEU are applicable to contract award procedures.

Life cycle

The life cycle spans the period from the planning of a product to its realisation, in-service use and disposal.

Planning comprises measures related to the future product during the analysis phase. Realisation comprises measures related to the future product within the project. The life cycle also refers to the services to be allocated to a product or project.

Life cycle cost

Life cycle costs cover all expenses incurred throughout the life cycle.

Costs may be allocated to different levels of abstraction and can this way be assigned to the objects of analysis. Life cycle costs also include costs of services provided for a product or project.

Proceeds (from the disposal of products, for example) are compared with the life cycle cost and offset, if required. Expenses and revenues from a budgetary perspective can be deduced from this with the help of integrated accounting.

Life cycle management

Life cycle management is the iterative planning, control, coordination and monitoring process performed to achieve and maintain the operational maturity of a product throughout its life cycle.

Logistic support analysis

Logistic support analysis (LSA) serves to systematically identify and electronically collect, present and analyse all information required to achieve the integrated logistic support objectives/project element of logistics. LSA supports

- the identification of cost drivers during product analysis, realisation and in-service use,
- influences on design and developments to minimise life cycle costs, and
- the provision of logistic data to plan and achieve operational maturity.

As early as during the analysis phase, LSA can provide initial contributions to the evaluation of product-specific logistic implications (such as the frequency and time of repair, stockpiling, training requirements, etc.), which will be further consolidated as the project progresses. In order to benefit from LSA, precise requirements for a logistic support system must be developed at an early stage.

Logistic supportability

Logistic supportability is a criterion for the operational maturity of products. It is achieved when the product-related logistic services required for in-service use can be provided.

A product has reached logistic supportability if, for example,

- the materiel documentation is available to the users,
- the initial spare parts requirements are met,
- it is ensured that follow-on spare parts requirements will be met,
- the installation and special tools and test and measuring equipment required for maintenance activities are available to the user,
- the personnel required for maintenance and materiel management is available,
- the training documentation and material has been delivered to the user,
- training of the personnel required for maintenance at that time has been completed,
- industrial maintenance and, if necessary, on-site industrial support is guaranteed, and
- the personnel required for the IT service management of the IT services used or implemented is available.

Maintenance

Maintenance comprises technical and operational measures that serve to maintain or restore the serviceability of material resources.

These measures apply to individual items of products during their service life. Maintenance includes inspection, servicing, repair and improvement tasks.

Materiel management

Materiel management is the entirety of measures that ensure the smooth flow of procured materiel in the supply chain, including surplus materiel management. These measures are based on the application of effective and rational procedures.

Materiel responsibility for operational maturity

Materiel responsibility for operational maturity comprises the responsibility for establishing, maintaining or restoring the operational maturity of a product.

Materiel responsibility lies with the Director-General of BAAINBw.

Operational maturity and, consequently, safe use of a product includes logistic and other measures required for in-service use. This covers all devices, infrastructure, equipment, documentation, services and personnel required for provision, operation and maintenance of operational readiness during in-service use.

Materiel responsibility begins, as a rule, upon selection of a solution proposal for the capability gap to be closed and ends with the disposal of the last item of the product.

Nontechnical scientific support

Nontechnical scientific support is the targeted application, control and coordination of scientific methods – concept development and experimentation (CD&E), modelling and simulation (M&S), operations research (OR), architecture and nontechnical studies – to meet intelligence requirements.

Obsolescence

Obsolescence occurs when an item is no longer available from the original manufacturer with the original specification. It is a significant cost factor and can have an impact on all phases of the procurement process. Obsolescence cannot be avoided. Rectifying unforeseen obsolescence problems may involve considerable unscheduled costs.

Obsolescence is

- the non-suitability of a product caused by artificial or natural aging, or
- the non-availability of a product because it can no longer be supplied by the original manufacturer.

Obsolescence may occur when components or materials of a specific product, or the resources, processes, services and knowledge relating to a specific product, are no longer suitable or available. Aging results in a reduced value-in-use and increasingly limited usability.

Some products may only appear to be unavailable in cases where they are still available on the market but can no longer be procured through the channels of procurement known so far. For the person concerned, such products seem to be unavailable, i.e. obsolete.

With regard to software, obsolescence can also mean that affected software is no longer maintained and modified.

Obsolescence can also be caused by updated technical standards or new regulations.

Obsolescence management

Obsolescence management is the iterative process performed to plan, control, coordinate and monitor measures aimed at mitigating and compensating the effects of obsolescence in a forward-looking manner.

Obsolescence management ensures the producibility and operational maturity of products during in-service use and their demand-oriented and cost-effective replacement. It also involves securing or transferring resources, processes, services and know-how, if there is a risk of obsolescence.

Operational architecture

The Bundeswehr's operational architecture comprises all operational processes, the associated organisational elements and the need for mutual exchange as well as quality features and interrelations among the elements within their operational context. The standardised guidelines and methods required for its development are an inherent element of the operational architecture.

Operational capability

Operational capability is the ability to accomplish a mission with the personnel, material, infrastructure, organisational, procedural and operational resources available (including services of third parties).

Operational fleet management

Operational fleet management includes all measures planned and implemented by the "in-service and supply manager responsible for maintaining operational capability and readiness" in order to maintain the operational capability and readiness of the items of a weapon system (fleet) in his or her area of responsibility. Operational fleet management must be differentiated from measures as planned and implemented by the "materiel manager for operational maturity" for all the items of a weapon system (fleet) in order to ensure the operational maturity of that weapon system.

Operational maturity

Operational maturity is the safe use of a product for its intended purpose or the contractually guaranteed option of using a service. The intended purpose of a product or the contractually guaranteed option of using a service is specified in the requirements document. The safe use of a product must be possible under realistic conditions and requires compliance with applicable legal regulations and safety/security requirements, for example concerning environmental protection, occupational safety and health, and information security. The safe use of a product comprises logistic and other measures required for in-service use, including IT service management for IT projects. This covers all devices, infrastructure, equipment, materiel data, documentation, services and personnel required for provision, operation, and maintenance of operational readiness during in-service use.

Operational readiness

Operational readiness is the assessed current state of available personnel and materiel, existing infrastructure and approved organisational and procedural structures to fulfil assigned tasks/missions. It also includes the required training. Operational readiness depends on operational capability.

Operational readiness situation

The operational readiness situation is a strategic management tool used to support the analysis/control and evaluation of the operational readiness of the Bundeswehr as to the accomplishment of its tasks. It makes a prediction for the next two years.

Together with the capability situation (operational capability of functional modules) and the equipment situation (operational maturity of material resources and in-service use situation), the operational readiness situation constitutes the central knowledge and data base for portfolio management in the Bundeswehr on the basis of integrated systems of resources. The situations complement one other in terms of their perspectives.

The following key questions are answered for the executive group of the FMoD, the director-generals of the FMoD, the chiefs of service or the executive groups of the major organisational elements/areas, and the commander of the Bundeswehr Joint Forces Operations Command:

a) Will the Bundeswehr be able to ensure the performance of mandated missions, standby commitments, standing operational tasks, and exercises of particular interest to the executive group of the FMoD with operational forces and assets (corresponding to the systems of resources) in a sustainable manner in the next two years?
b) What yet uncommitted systems of resources are predicted to be available in the period under review, i.e. in the next two years?
c) What fields of activity require strategic control in order to improve the operational availability in the major organisational elements?

The operational readiness situation is prepared twice a year as of a specific date and comprises the following three outcome prospects (P I – P III):

- P I – Operational readiness for operations, standby commitments, standing operational tasks, and exercises of particular interest to the executive group of the FMoD (focus on ensuring current missions);
- P II – Available forces for possible new missions (focus on uncommitted forces and capabilities);
- P III – Fields of activity (focus on current decision-making requirements).

Partners

National and international government or civilian institutions/companies with whom there is to be cooperation in the areas of demand identification, procurement and in-service support are referred to as “partners”.

Performance target

Performance targets are composed of a requirement and its associated system element. The requirement describes the realisation target that is developed based on the functional requirements to be implemented. A functional requirement may also be implemented by fulfilling more than one requirement. The system element describes the associated functional unit (comparable to an assembly) of the product or a service which is provided by fulfilling one or more requirements.

Planning category

Capability development in integrated planning takes place in the following planning categories: armaments, personnel, infrastructure, organisation and operation. The items considered in the planning categories are those qualifiable and quantifiable elements that are the basis of the corresponding target capabilities in the Bundeswehr Capability Profile:

- Armaments comprises all elements of materiel supplies. This target value is reflected in the target organisation.
- Personnel comprises the entire personnel within the area of responsibility of the FMoD.
- Infrastructure comprises all physical structures within the area of responsibility of the FMoD.
- Organisation comprises the organisational structure within the area of responsibility of the FMoD.
- Operation comprises all resources that ensure the function of resources of the categories “Armaments”, “Personnel” and “Infrastructure” as well as contractual substitutes for resources of these categories. There is no separate specialist planning activity for this planning category. As a rule, the specialist planning activity for the allocated or substituted resource is responsible for all efforts related to integrated planning.

Planning portfolio measure

Planning portfolio measures (formerly “medium-term planning projects”) are adaptations of the Bundeswehr’s capacity for action and efficiency pursuing a specific objective. They are ordered by the Director-General for Planning or by the Director-General of the Bundeswehr Office for Defence Planning (Director-General for Cyber/IT or Cyber and Information Domain Service Headquarters for the Cyber/IT sub-portfolio). These measures may be approved by the Director-General for Planning (or the Director-General for Cyber/IT for the Cyber/IT sub-portfolio) in a top-down approach on the basis of the prioritised targets to remove identified capability deltas. If required, a project outline will be requested. Bottom-up initiatives may also be approved as planning portfolio measures to remove capability deltas. Planning portfolio measures generally result in financially relevant measures. They are pursued in the context of capability development within the scope of the “Executing Integrated Planning” performance process within the overall planning process.

Portfolio management

Portfolio management (PFM) is the overall control and monitoring of projects in order to identify, at an early stage, and to assess implications for the overall system and to bring about decisions. Bundeswehr portfolio management (PFMBw) comprises the capabilities level and the projects/products/services level, which are strongly interdependent and therefore cannot be looked at separately. PFMBw interlinks these two levels via the Bundeswehr capability situation, the equipment situation and the operational readiness situation. The aim is to identify, at an early stage, and to assess capability-related implications for the overall system and to bring about necessary decisions.

The Directorate-General for Planning at the FMoD and the Bundeswehr Office for Defence Planning are responsible for overall PFMBw and for PFMBw at the capabilities level. The Directorate-General for Equipment at the FMoD and BAAINBw are responsible for PFMBw at the projects/products/services level. For the Cyber/IT sub-portfolio, the Directorate-General for Cyber/Information Technology and the Cyber and Information Domain Service Headquarters are responsible for PFMBw at the capabilities level, whereas responsibility for PFMBw at the projects/products/services level lies with the Directorate-General for Cyber/Information Technology and BAAINBw.

Type D Special Publication D-1500/29 “Erstbefähigung Portfoliomanagement Bundeswehr für die Ebene Projekte/Produkte/Dienstleistungen“ (Initial Bundeswehr portfolio management capability at the projects/products/services level) lays down the rules for the application of Bundeswehr portfolio management at the projects/products/services level.

Postdesign services

Postdesign services (PDS) are the sum of all development-specific services that are required as a basis for decision-making regarding the modification of products and must be rendered by trade and industry and, if necessary, by the armaments sector, following approval by or at the request of the materiel manager for operational maturity. This comprises efforts required in preparing a modification, including software and documentation efforts. Postdesign services rendered by trade and industry are subject to contract, and funded by development budget items.

Preparatory meeting

The purpose of preparatory meetings[64] is to enable open and constructive discussions in all project categories. They are aimed at actively bringing about decisions to mitigate risks in accordance with A-1500/30, thus facilitating successful execution of the project.

Product

General term for all military and other equipment including computer hardware and software.

[64] The term “preparatory meeting” refers to its preparatory function in category A projects for the armaments board. However, because of its established format and designation it is also used – without this preparatory function – throughout project categories B to D.

Product for the purposes of the phase of in-service use:

A product for the purposes of the phase of in-service use is a type of products of the same kind fielded in the Bundeswehr under this Type A General Publication.

Materiel responsibility for operational maturity only refers to products for the purposes of the phase of in-service use. It rests exclusively with BAAINBw.

Product improvement

Product improvement comprises all measures aiming at capability improvement or at considerably enhancing the characteristics of a fielded product. Such measures have substantial operational, logistic, technical or economic effects.

Product improvements always result in changes to the corresponding materiel documentation. Product improvements resulting from lessons learned during the fulfilment of materiel responsibility for operational maturity must be submitted by the project manager to the Bundeswehr Office for Defence Planning by way of initiatives.

Product maintenance

Product maintenance encompasses all measures designed to preserve or restore the operational maturity of a product and to avoid differences between the target and actual state of a product.

Information about the actual state of a product is obtained as part of product monitoring. Information about the target state of a product is mainly based on the following criteria:

- its intended purpose,
- item configuration management, and
- obsolescence management.

The intended purpose of each product is based on the documents “Capability gap and functional requirement”, “Capability gap and functional requirement (fast-track initiative)", “Capability gap and functional requirement including solution proposal”, “Technical architecture requirement including solution proposal” and the selection decision document. Within the scope of product maintenance, maintenance measures can be ordered for all items of the product concerned.

Product modification

Product modifications are measures that cause the modification of the configuration baseline or configuration of a product but are not aimed at capability improvement or at considerably enhancing the characteristics of that product.

Modifications are permissible if they aim at maintaining or restoring operational maturity or at rationalising operation. Minor changes, such as version changes or software updates, that only cause marginal changes to materiel documentation and can be implemented for all items of a product as part

of maintenance activities do not require a budgetary document. Product modifications must be documented in the materiel documentation.

Product modifications must be carried out in accordance with German military standard VG 95031.

Programme

If two or more projects are closely related due to interrelations and dependencies between their systems, these otherwise independent projects may be combined to form a programme managed by a programme manager. Depending on the type of such system interrelations, two types of programmes can be distinguished: systems networks and integrated systems. See section 7.5 “Programme management”.

Programme handbook

The programme manager develops a programme handbook to ensure that the programme is implemented in a structured manner. This handbook must describe the programme manager’s tasks, competence and responsibilities, the associated projects, the programme order, the competent bodies exercising functional supervision and other framework conditions as required. The programme handbook is approved by the Director-General of BAAINBw.

Programme manager

If a project is part of a programme, specific tasks of the project manager may be transferred to the BAAINBw programme manager. This will be laid down in the programme handbook. The programme manager’s tasks include risk management at programme level and representation of the programme during the preparatory meeting.

Project

Projects within the meaning of this Type A General Publication are aimed at a timely and cost-effective procurement of operational products and services as well as their efficient use.

A project is mainly characterised by its limited duration and singular conditions, such as objectives regarding schedule or budget or a project-specific organisation.

Project categories

Assigning projects to different project categories allows for efficient resource allocation with clear-cut administrative procedures. There are four project categories ranging from A to D. Category A and B projects are relevant to the Ministry. Category C and D projects are finalised by the offices. Furthermore, the type and extent of risk management is differentiated according to category. The project categories are described in section 7.1 “Project categories” and in Type B General Publication B-1500/7. They are similarly applied to programmes and products.

Project handbook

A project handbook contains an overview of the project management approach in the project. It serves to inform and provide guidance for all parties involved in the project. It helps new personnel to understand and make productive contributions to the project within a short period of time. The handbook is developed step by step by the parties involved in the project. This means that all parties involved must accept the specified tasks, competencies and responsibilities.

Project management

Project management comprises the planning, control and monitoring of projects as well as all command and control tasks and organisation, management techniques and resources necessary for the initiation, definition, planning, control and finalisation of projects. For projects related to the Bundeswehr IT system, project management will comply with the requirements laid down in the IT strategy for the FMoD area of responsibility.

Project manager

Within the scope of procurement and in-service support management, the future project manager represents BAAINBw in the IPT of the Bundeswehr Office for Defence Planning/Cyber and Information Domain Service Headquarters. Upon BAAINBw's assumption of IPT leadership, the Director-General of BAAINBw appoints the future project manager as project manager. The project manager has the overall responsibility for the implementation of the project within the given performance, time and cost framework. In IT projects, the project manager may, at the same time, assume the role of service owner for newly implemented IT services.

Project outline

When the Director-General for Planning approves a new planning portfolio measure in a top-down approach on the basis of the targets prioritised by the planning board in the medium-term plan, a project outline will be drawn up if necessary. The purpose of a project outline is to describe the intended adaptation, change or development needed to remove a capability delta in all planning categories in as much detail as possible and (if possible) make it more specific by adding information about schedules and financial planning. Depending on the specific case a particular focus must be given to aspects relating to capability, operations, joint and combined capabilities and legal or (security) policy guidelines. Based on the results of the project outline, there is also the general possibility to abandon the original intention of the top-down measure.

Project sponsor

Project sponsors as defined in the context of risk management (see A-1500/30) chair the preparatory meeting at the final level of the project category concerned (A to D). Their decision-making competence extends the range of mitigation measures available to the project manager. Together with the line

superiors of the project manager they enhance the risk management quality of the project by critically assessing the project manager's project-specific procedures and decisions.

The State Secretary for Armaments is the project sponsor and chairperson of the preparatory meetings for category A projects.

The Director-General for Equipment is the project sponsor and chairperson of the preparatory meetings for category B projects. For IT projects, this function is assumed by the Director-General for Cyber/IT.

The BAAINBw executive group is the project sponsor and chairperson of the preparatory meetings for category C and D projects.

Quality assurance requirements (in contracts)

Quality assurance requirements are demands placed on contractors to ensure the quality of the contractually agreed performance. The requirements are divided into

- contractor's obligations and
- the contracting authority's monitoring/inspection rights (Government Quality Assurance measures).

In accordance with STANAG 4107, defence procurement activities are to be based on the Allied Quality Assurance Publications (AQAP).

Quality gate

Quality gates are milestones in the course of a process that serve to assess predefined quality criteria. Fulfilment of these criteria is mandatory for proceeding with the project concerned.

Quality gates serve to achieve systematisation as well as to measure levels of readiness of certain process elements and to define standards for all parties involved in a project. Furthermore, they improve the judgment capability of decision makers, and a possible need for adjustments will be recognised at an earlier date. Quality gates may be used in all CPM phases. For BAAINBw, CPM quality gate requirements are laid down in Type C1 Special Publication C1-1500/0-3 "Verfahrensregelung Quality Gates (QG) nach CPM (nov.) im BAAINBw" (procedural regulation for quality gates (QG) i.a.w. CPM (amended) at BAAINBw).

Replacement procurement

Replacement procurement is the procurement of available alternative products that provide the required capabilities, in the event that replenishment procurement of the same product is no longer possible or economical. Replacement procurement must be justified by means of a modification approval.

Replenishment procurement

Replenishment procurement is the procurement of items of a fielded product that continues to be available, in order to address an existing shortage.

Shortages within the meaning of replenishment procurement may result, for example, from use, wear and tear or loss.

Rights of use

All contractual items procured under the procurement and in-service process involve intellectual know-how. Intellectual know-how exists in the form of manuals, documentation, operating instructions, software, databases, technical drawings etc. It refers to copyright works or industrial property rights (patents, utility models, design, trademarks). Where intellectual property rights are affected, third-party use under German legislation requires the granting of rights of use or licences. The right to use intellectual know-how is the key element of future competitive tendering. It is the basis of the entire after-sales service as well as any follow-on projects (modifications or reproductions). The scope of the right of use must therefore be defined during the contract planning phase, taking the entire product life cycle into consideration. The appropriate right-of-use provisions must be specified during the contracting phase.

Risk management

Risk management is an integral part of project management. It describes a continuous and systematic procedure for dealing with risks in a targeted manner. It comprises the analysis and evaluation of risks as well as the planning and implementation of measures to avoid, minimise and accept risks. A-1500/30 defines risk management and risk reporting for equipment.

Rough assessment

If the need for capability development is determined in a top-down approach, a rough assessment across all planning categories is required for the approval of the necessary planning portfolio measure. Such assessment also serves the purpose of medium-term planning in terms of earmarked resources (time and cost frame). The information required for the rough assessment is provided by the Strategic Capability Development division of the FMoD (BMVg Plg II), the specialist planning activities and, if required, appropriate subordinate agencies to the Strategic Management of Planning division of the FMoD (BMVg Plg I). It includes at least the following:

- a determination of conformity with objectives,
- an assessment of the impact on the following planning categories: personnel, armaments, organisation, infrastructure, and operation,
- a first estimate of expenses throughout the life cycle (LCCM),
- a confirmation of possible inclusion in the medium-term planning,
- a statement on the classification of the planning portfolio measure in terms of the Bundeswehr IT system, and

- a proposal for the category of measures.

Service owner

The IT service owner is responsible for rendering IT services in accordance with the agreed and documented requirements to be met by these IT services throughout the entire life cycle (he or she may also be responsible for other projects within the FMoD area of responsibility in a clearly defined quality and functionality). When new IT services are established, the Director-General of BAAINBw or his or her representative appoints an IT service owner (unless the project manager is the IT service owner) as early as possible during the analysis phase. After approval for service use has been given, the IT service owner assumes the tasks of the project manager during the phase of in-service use. The IT service owner is responsible for the change request management for his or her IT service as part of Continual Service Improvement (CSI). Approved change requirements help to further develop that IT service. The IT service owner accompanies the implementation of such developments through projects (under the responsibility of the project manager) during all phases.

Services

Services in this Type A General Publication comprise all services of third parties that do not involve supplies, which means granting rights of control over items that are comparable to ownership rights. Services support the Bundeswehr in fulfilling its tasks. They are used, in terms of CPM, to permanently close capability gaps in the context of material services, for example by granting rights to use material goods.

Supplementary procurement

Supplementary procurement is the procurement of fielded products in order to meet a demand that is greater than that specified in existing CPM documents. Increased demand may, for example, be due to an expansion of the user group, to increased sustainability requirements or to organisational changes.

The additional demand must be justified in the amended CPM documents, which are subject to approval.

Support services

Support services are all services provided by trade and industry and by the major organisational element “Equipment, Information Technology and In-Service Support” to maintain the operational maturity of a product. Support services are employed as part of the control of in-service support. They consist of

- provision and supply,
- preventive and corrective maintenance (including software),
- technical logistic support (TLS),

- postdesign services (PDS), and
- industrial support services.

When deciding whether and to what extent services designed to maintain operational maturity should be awarded to trade and industry, the following aspects must be taken into account: Bundeswehr core capabilities, the ability to assess situations, identify critical information and manage requirements, and reliable provision of required services during Bundeswehr operations both in peacetime and during crisis/war.

System architecture

The system architecture is a representation of the Bundeswehr IT system in the form of a catalogue of all IT systems and their interrelationships. It also provides a taxonomy of services by means of which the systems can be allocated to the operational domain in the form of services.

The system architect is responsible for developing this architecture. A system data sheet and one or more service data sheets are used to describe the specific systems.

Tasks, competencies and responsibilities principle

The tasks, competencies and responsibilities principle describes a technique for the analysis and presentation of the tasks, competencies and responsibilities of a person or of their role or position. Organisation theory requires a balance between the three components as a matter of principle. This means that competencies and responsibilities must be sufficient to perform the assigned tasks (organisation congruence principle).

Technical logistic support

Technical logistic support (TLS) includes long-term services related to the collection, processing and provision of information. These services are provided by trade and industry or the armaments sector for the purpose of maintaining the operational maturity of products in use.

TLS services are funded from the maintenance budget.

8.2 Abbreviations and acronyms

A	Ausrüstung (Equipment (Directorate-General at the FMoD))
AAWE	Anpassung der AWE (selection decision amendment document)
AIN	Ausrüstung, Informationstechnik und Nutzung (Equipment, Information Technology and In-Service Support (Directorate-General at the FMoD))
AQAP	Allied Quality Assurance Publications
AWE	Auswahlentscheidung (selection decision document)
ÄzFFF	Änderung zur Fähigkeitslücke und Funktionale Forderung (capability gap and functional requirement change document)
BAAINBw	Bundesamt für Ausrüstung, Informationstechnik und Nutzung der Bundeswehr (Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support)
BAIUDBw	Bundesamt für Infrastruktur, Umweltschutz und Dienstleistungen der Bundeswehr (Federal Office of Bundeswehr Infrastructure, Environmental Protection and Services)
BHO	Bundeshaushaltsordnung (Federal Budget Code)
Bw	Bundeswehr
CD&E	Concept development & experimentation
CGM	Commercial, governmental and military off-the-shelf
CIT	Cyber/Informationstechnik (Cyber/Information Technology (Directorate-General at the FMoD))
CPM	Customer Product Management
CSI	Continual service improvement
DEUmilSAA	German military Security Accreditation Authority
EDA	European Defence Agency
EDSTAR	European Defence Standards Reference Systems
EU	European Union
FFF	Fähigkeitslücke und Funktionale Forderung (Capability gap and functional requirement document)
FFF(S)	Fähigkeitslücke und Funktionale Forderung (Sofortinitiative) (Capability gap and functional requirement document (fast-track initiative))
FMoD	Federal Ministry of Defence
GeNu	Genehmigung zur Nutzung (Approval for service use)

GQA	Government Quality Assurance
HC	Haushalt und Controlling (Budget and Controlling (Directorate-General at the FMoD))
ILS	Integrated logistic support
IPT	Integrated project team
IT	Information technology
ITIL	IT Infrastructure Library
IT-SVEB	IT-Service Verantwortlicher bzw. IT-Service Verantwortliche Einsatz und Betrieb (IT service manager for operation)
KDL	Komplexe Dienstleistung (Complex services)
KdoCIR	Kommando Cyber- und Informationsraum (Cyber and Information Domain Service Headquarters)
LCC	Life cycle costs
LCCM	Life cycle cost management
LSA	Logistic support analysis
MoU	Memorandum of Understanding
M&S	Modelling and simulation
NATO	North Atlantic Treaty Organisation
NIAG	NATO Industrial Advisory Group
OR	Operations research
PDS	Postdesign services
PKI	Public key infrastructure
Plg	Planung (Planning (Directorate-General at the FMoD))
PlgABw	Planungsamt der Bundeswehr (Bundeswehr Office for Defence Planning)
PPP	Public-private partnership
R&T	Research and technology
SASPF	Standard application software products families
SE	Strategie und Einsatz (Strategy and Operations (Directorate-General at the FMoD))
STANAG	Standardization Agreement
TAF	Technische Architektur Forderung (Technical architecture requirement)
TFEU	Treaty on the Functioning of the European Union
VG	Verteidigungsgerätenorm (German military standard)

VOL	Verdingungsordnung für Leistungen (Conditions Concerning Contracts for Supplies and Services)
VPN	Virtual private network
VS	Verschlusssache (Classified information/material)
VSVgV	Vergabeverordnung Verteidigung und Sicherheit (Regulation on the Award of Public Contracts in the Fields of Defence and Security)
VV-BHO	Allgemeine Verwaltungsvorschriften zur Bundeshaushaltsordnung (General administrative regulations to the Federal Budget Code)

8.3 List of figures

8.4 List of references

(No.) Reference documents	Title
1. K-10/2	IT-Strategie des Geschäftsbereichs BMVg (IT strategy for the area of responsibility of the FMoD)
2. FMoD AIN III 2, dated 1 Aug 2014	Konzept Komplexe Dienstleistungen in der Bundeswehr (KDL) (Concept for complex services in the Bundeswehr)
3. BAAINBw Deputy Director-General (civilian) – Ref. 76-03-00, dated 15 Oct 2015	Leitfaden zum Wettbewerblichen Dialog (Competitive dialogue guideline)
4. A1-221/0-6	Ausbildung Standard-Anwendungs-Software-Produkt-Familien (Standard application software product families training)
5. A-221/0-7	Standard-Anwendungs-Software-Produkt-Familien (SASPF) – Ausbildungsunterlagen (Standard application software product families (SASPF) training documentation)
6. A-400/6	Integrierte Planung (Integrated planning)
7. A-400/7	Leistungsprozess „Integrierte Planung durchführen“ (“Executing Integrated Planning” performance process)
8. A-450/1	Wissenschaftliche Unterstützung Nicht-technisch (Nontechnical scientific support)
9. A-500/1	Zusammenarbeit des BMVg mit Dienststellen des nachgeordneten Bereiches (Cooperation between the FMoD and its subordinate agencies)
10. A-500/100	Fachaufsicht (Functional supervision)
11. B2-940/0-0-4	IT-Servicekatalog Management (IT service catalogue “Management”)
12. A-960/1	IT-Sicherheit in der Bundeswehr (IT security in the Bundeswehr)
13. A-1500/30	Risikomanagement und Risikoberichtswesen Ausrüstung (Risk management and risk reporting for equipment)
14. A-1510/1	Lebenswegkostenmanagement in der Bundeswehr über alle CPM-Phasen – Life Cycle Cost Management (LCCM) (Bundeswehr life cycle cost management (LCCM) across all CPM phases)
15. A1-1530/0-7000 VS-NfD (Restricted)	Wahrnehmung der Aufgaben in der Nutzungsphase (Performance of tasks in the phase of in-service use)
16. A-2122/4	Datenschutz (Data protection)
17. B-1500/7	Projektkategorisierung im Customer Product Management (novelliert) (Project categorisation in the amended Customer Product Management process)
18. C-1500/10	Jahresprogrammverhandlungen (Annual programme negotiations)
19. C1-1500/0-3	Verfahrensregelung Quality Gates (QG) nach CPM (nov.) im BAAINBw (Procedural regulation for quality gates (QG) i.a.w. CPM (amended) at BAAINBw)
20. C1-1500/0-7020	Wahrnehmung der Betriebs- und Versorgungsverantwortung für den Erhalt der Einsatzfähigkeit und Einsatzbereitschaft

(No.) Reference documents	Title
	(Exercising in-service and supply responsibility for the maintenance of operational capability and readiness)
21. C1-1500/3-7017	Ausplanung und Ausgestaltung des Projektelementes Logistik gemäß A-1500/3 (Detailed planning and development of the “Logistics” project element in accordance with A-1500/3) (not yet effective)
22. D-1500/29	Erstbefähigung Portfoliomanagement für die Ebene Projekte/Produkte/Dienstleistungen (Initial Bundeswehr portfolio management capability at the projects/products/services level)
23. A-1600/1	Einkauf der Bundeswehr (Betriebsbedingte Beschaffungen) Bundeswehr Purchasing (non-project procurement)
24. C1-2400/0-7005 VS-NfD (Restricted)	IT-Wirtschaftlichkeitsbetrachtung (Economic efficiency analysis for IT measures)
25. A-2146/1	Prüfung neuer Waffen, Mittel und Methoden der Kriegführung (Review of new weapons, means and methods of warfare)
26. A-2190/2	Beteiligung der Industrie in Integrierten Projektteams in den verschiedenen Phasen des novellierten Customer Product Management (Industry involvement in integrated project teams in the different phases of the amended Customer Product Management process)
27. C1-2195/0-7030 VS-NfD (Restricted)	Mitzeichnungs-/Berichtserfordernis bei Anwendung des Art. 346 Vertrag über die Arbeitsweise der Europäischen Union (AEUV) (Staffing/reporting requirements for the application of Art. 346 of the Treaty on the Functioning of the European Union (TFEU))
28. A-2177/1 VS-NfD (Restricted)	Wehrtechnische Forschung und Technologie (Defence research and technology)
29. VG 95031	Änderung von Produkten (Modification of products)
30. BAAINBw Q3.1 – Ref. 81-02-74 dated 28 May 2015	Leitfaden für die Ausplanung und Ausgestaltung des Projektelementes Logistik gemäß A-1500/3 (CPM (nov.)) (Guideline for detailed planning and development of the “Logistics” project element in accordance with A-1500/3 (CPM (amended)))
31. C1-2020/0-7007	Durchführung von Funktionsnachweisen und Probefahrten bei Schiffen/Booten (Performance of final acceptance and sea trials for ships/boats)
32. C1-1530/0-1	Rahmenweisung für die Integrierte Nachweisführung bei Schiffen/Booten (Framework directive regarding integrated compliance demonstration for ships/boats)
33. C-1800/121	Infrastrukturbearbeitung (Infrastructure processing)
34. STANAG 4107 dated November 2017	Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publications (AQAP)

8.5 Replaced directives

This version of A-1500/3 replaces the following directives:

- FMoD AIN I 1 – Ref. 79-01-01 dated 26 Feb 2014 “Ergänzungsbeschaffung gem. CPM (nov.)” (Supplementary procurement i.a.w. CPM (amended));
- FMoD AIN I 1 – Ref. 27-40-00 dated 17 June 2014 “Mitzeichnung von FFF/FFF(S) der vorläufigen Projektkategorien C/D durch BAAINBw” (Co-signing of FFF/FFF(S) documents of the preliminary project categories C/D by BAAINBw);
- FMoD AIN I 1 – Ref. 81-01-01 dated 15 Oct 2014 “Ergänzender Lösungsvorschlag zur Anpassung von AWE” (Supplementary solution proposal to amend selection decision documents);
- FMoD AIN I 1 – Ref. 81-01-01 dated 4 Feb 2016 “Vereinfachtes Verfahren für Bedarfe bis 500 TEUR” (Simplified procedure for projects requiring funds up to EUR 500 000);
- FMoD AIN I 1 – Ref. 81-01-01 dated 3 May 2016 “Vereinfachtes Verfahren für Bedarfe bis 500 TEUR (Ergänzung)” (Simplified procedure for projects requiring funds up to EUR 500 000 (supplement);
- FMoD A I 1 – Ref. 81-01-01 dated 6 Oct 2016 “Übergangsregelung zur Berücksichtigung der neuen Abteilung Cyber/IT” (Transitional provision to include the new Directorate-General for Cyber/IT);
- FMoD A I 1/Plg III 1 dated 27 Mar 2017 “Weisung zur Bearbeitung von Sofortinitiativen für den Einsatz” (Directive on the processing of fast-track initiatives for operations);
- FMoD A I 1 – Ref. 81-01-01 dated 8 June 2017 “Übergangsregelungen zur Berücksichtigung des KdoCIR ab 1. April 2017” (Transitional provisions to include the Cyber and Information Domain Service Headquarters as of 1 April 2017).

8.6 Change record

Version	Valid from	Changed contents
1	05 May 2014	• First published
1.1	20 June 2016	• Security classification changed to “öffentlich” (public)
2	1 May 2018	• Revision of entire document to reflect the different CPM procedures