**Application for a**

**Digital Hub: Advances in Research and Health Care - Networking and Expansion**

**of the "Medical Informatics" funding scheme**

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## A) DETAILED CONCEPT

*[max. 25 pages]*

###  General information

|  |  |
| --- | --- |
| **Hub Coordinator** | * *First name, last name, academic title*
* *Institution and department (complete name)*
* *Postal address*
* *Telephone*
* *E-mail address*
 |
| **Title** |  |
| **Acronym** |  |
| **Funding Requested (Total)** |  |

###  Hub members and other partners

*In Table 1, please list only partners that request funding. Other partners, e. g. associated partners or relevant subcontractors are to be included in Table 2. Please assign a Partner-ID to each partner using continuous numbering, in accordance with Table 2 and the Financial Plan (section 13).*

***Table 1. Hub member institutions (partners requesting own funding);*** *Note:**PI = Principal Investigator,**DIC = Data Integration Centre of the Medical Informatics Initiative.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Partner-ID** | **Partner (institution)** | **PI**  | **DIC involved** | **Requested funding****[EURO]** | **new in Hub (yes/no)** |
| P1 | *e. g. University (Hospital) xy* | *Academic title, first + last name, department* | *yes/no* |  |  |
| P2 |  |  |  |  |  |
| P3 |  |  |  |  |  |
| … |  |  |  |  |  |

***Table 2.*** *Additional partners (not requesting own funding). Please continue the numbering from Table 1.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner-ID** | **Type of partner** | **Institution/Stakeholder** | **Specific role/contribution** |
| P4… | Scientific collaboration partners | *Name of institution (Name of PI in charge)* | *practice-based research network**further academic partners (e. g. evaluation of benefits)* |
| P5P6… | Health care institutions |  | *hospitals and other health care service providers* |
| P7P8… | Self-help groups/(Patient) organizations |  | *resp. organization/participatory research approaches beyond mere consulting (please see 9)* |
| P9… | Companies/relevant subcontractors  |  | *development and application of IT interfaces* |
| P10… | Other providers of routine data |  | *e. g. secondary analysis of health care insurance data/data access & contribution* |

### Summary

*Please provide a summary of the overall strategy of the Hub, the main goals and methodological approaches of the project. Pay particular attention to the results of the first funding phase and the added value from further funding. The summary should provide the reviewers with a quick overview of the cornerstones of the project (max. 1.800 characters, including spaces).*

### Overall objectives

*Please delineate the main objectives of your Hub in relation to the aims of the funding measure. Describe in detail how the aims of the funding measure will be met e. g. by your concept of extended cooperation and interoperability between the Hubs, as well as the connectivity to research data infrastructures already established by the MII and the Network of University Medicine (NUM), in particular the Data Integration Centres (DIC) and the Health Research Data Portal (FDPG). Additionally, explain how cross-Hub Use Cases will result in an added value and increased acceptance of the developed solutions/tools for the relevant stakeholders.*

### Hub structure

###  Current Hub structure and status quo of the Hub

*Please briefly describe the current structure and organization of your Hub as well as the current status of integration of existing networks or collaborations, interoperability between Hubs and connectivity to MII/NUM research data infrastructures already established. Provide an analysis of strength and weaknesses of the current Hub structure.*

###  Adjusted Hub structure for a potential second funding period

*Based on 4.1, please derive your planned Hub structure and organization for a potential second funding period. Provide details on:*

* *the role and expertise of the involved partners requesting funding. And if applicable, which partners are no longer included in your Hub and/or which partners will be added to your Hub. In particular, please describe the benefit of integrating additional partners/collaborators as well as their expertise.*
* *how the weaknesses of the current Hub structure will be addressed.*
* *how issues of feasibility as well as motivation and interests of all relevant stakeholders will be addressed or evaluated.*

###  Cooperation with MII/NUM research data infrastructures

*Please describe the collaboration in particular with DIC and other members/ bodies of the MII and NUM (and if applicable, other relevant existing infrastructures). Please describe how agreements and standards of MII and/or NUM already implemented in the Hub and how the current status will be further expanded/developed in the second funding period.*

###  Data management, data sharing and interoperability

*Describe the status quo of cross-sectoral use of patient care data within the Hub. Which data have been included so far. Describe how the data are processed, stored and managed.*

*Describe in concrete terms - with reference to the status quo - the next steps to achieve Hub and cross-Hub interoperability and data access. Consider the statements in the funding guideline on the subject of the funding:*

* *resources and/or measures to ensure long-term functionality and interoperability*
* *connectivity and interoperability with the structures and standards of MII and NUM*

### Governance – Status quo and adjustments

*Depict the governance structures (include a figure to visualize governance structures). Describe how partners will maintain an active role in the Hub and how the decision-making process will take place. Comment on planned seeking of external perspectives, expert advice or monitoring. Describe how this has been done so far and how it is planned for the second funding period.*

### Summary of work and achievements of first funding phase

*Please outline shortly what has been done in the first funding phase. Highlight achievements as well as problems that still need to be addressed. Describe the currently running Use Cases in your Hub and provide information about the following points for each Use Case:*

* *achieved aims and benefits for health care providers or patients*
* *developed IT-solutions and technical strategies*
* *collaboration with the MII and DIC*

### Work plan for a second funding phase

*Provide one comprehensive work plan including work packages and define time lines and milestones/deliverables for the implementation of your concept. Work plan and milestones should reflect collaboration and common targets. Include challenges and risks for the success of the work plan. Discuss intended solutions and possible alternatives. Present appropriate measures to deal with these risks and challenges (risk mitigation measures).*

*Work packages (WPs) can include one or more partners. Please organize the plan in relevant sections, e. g. Data Use and Access, Use Cases, Governance/Structure, Interoperability/Sustainability. Depending on your concept, additional WPs can be included where necessary. Indicate the contribution of each partner by referring to the Partner-ID. Also sum up the information in a Gantt-Chart.*

Adjustment of Use Case(s)

*Please describe which Use Case(s) should be continued and give an overview about the adjustments for the second funding period including the following points:*

* *aims to be achieved*
* *added value of the cross-sectoral use and access for patient care in the Hub and beyond*
* *partners involved and their role*
* *new collaboration(s)*
* *connection to the MII*

Cross-Hub Use Case(s)

*Give a detailed description of the intended cross-Hub Use Case(s).*

*Give details on:*

* *aims to be achieved*
* *relevance, benefits and added value for stakeholder, patients and health care providers*
* *consideration of regulatory changes (e.g. GDNG) and connection to other legally mandated data access points (HDAB, EHDS)*
* *necessary IT-solutions and data to be included, data routes, data processing and potentially required data use agreements.*
* *challenges and risks and how the risks can be mitigated*
* *tangible key performance indicators for the functional performance of the Use Case (reachable within the funding period)*
* *partners of the Hub and other Hubs involved and their role/tasks*
* *collaboration(s) and connection to the MII*

*Please note: The description of the cross-Hub Use Case(s) should be similar for all participating Hubs in their respective proposal. If the Hub participates in more than 1 cross-Hub Use Case, please structure this section accordingly.*

### Networking and cooperation with other Hubs

*Apart from the Use Cases, please describe the type and extent of the planned networking/cooperation with the other Hubs including joint events as well as joint use of e. g. IT solutions.*

### Patient involvement

*Describe the measures of the Hub to involve patients and patient communication:*

* *What has been done so far?*
* *What are the plans for the second funding phase and in which stages and extent is the implementation of patient involvement intended?*

*If the involvement of patients is not considered appropriate, give reasons for this.*

### Gender, diversity and minorities

*Aspects of (in-)equality, for instance regarding accessibility or utilization of health care services, can be addressed with different scopes, also as specific work packages in the project. Please describe how gender, diversity and minority issues were addressed in the Hub including the Use Case(s). Give an overview about the plans for the second funding phase. If not relevant, please provide a short explanation If applicable, please describe strategies to reduce the influence of biases.*

### Sustainability of the Hub

*Provide a realistic provisional plan for the continued operation and long-term sustainability of the Hub after the funding period. Please address how the motivation for a substantial collaboration will be sustained. Also comment on how further collaboration partners can be integrated into the Hub.*

*Please comment on current and future funding of existing structures.*

### Financial plan

*Justify the required resources of the detailed financial plan itemized according to the work packages specified in section 8. Also indicate the respective partners involved. Use the provided EXCEL file “Financial\_Plan\_Hubs” as a template for the detailed financial plan.*

### Other funding

*In case you have already submitted parts of this proposal to other institutions, funding organizations or the BMBF, please mention this here. If this is not the case please declare:*

*"A request for funding this project has not been submitted to any other addressee. In case I submit such a request I will inform the Federal Ministry of Education and Research immediately".*

*In case third parties provide funds, free services or other resources for the Hub (including DICs), please specify the contribution. Attach corresponding letters of intent (Annex B.4).*

B) ANNEX

### 0. Overview of the annex

*Please include a table of contents with page numbers.*

### 1. References

*Please list* *here references cited in the text only.*

### 2. Abbreviations

### 3. Commitments

### a) Hub partners

### b) Third parties

*Please present a list of the binding commitments of (a) all participating Hub partners requesting funds or (b) collaborators (ordered by Hub partner, as in table 1 and collaborators, as in table 2). The corresponding letters (max. 2 pages) – preferably in English - must be signed by the authorized representatives of the respective institution. Please attach the letters in Annex B.3 (a) or (b), respectively. The following commitments are to be submitted;*

* *willingness to collaborate with the MII and its working groups on relevant issues (e. g. interoperability, data privacy) and to implement achieved agreements*
* *confirmation of own contributions (e. g. continued operation of data integration solutions, continued collaboration after the funding period to ensure sustainability of the Hub)*
* *willingness of all data providing Hub partners to continuously provide all partners with the data access necessary for the Use Cases*

### 4. CVs for PIs of each partner

*Include CVs of the PIs of each partner institution along with the 5 most important publications with regard to the Hub concept (max. 1 page/person; max. 3 persons per partner institution). Additionally, in case of patent applications relevant to the project aims, please indicate patent number/issue date or application serial number/application date, ideally with a link to the respective data base.*