Full proposal for Call KA-06

**Project Title - Acronym**

Application for funding from the Initiative and Networking Fund (INF) of the Helmholtz Association within the framework of the Helmholtz Quantum Use Challenge, launched December 20, 2024

*[Notes: To facilitate the use of the template, you will find short explanations or guiding questions (highlighted in green) under the respective headings.
Please delete them completely before submitting this document!*

*The template must be completed in Arial, 10pt font size with a line spacing of at least 13 pt (see “Standard” in the format styles). The page margins must be at least 3.5 cm at the top, 2.5 cm left and right and 1.5 cm at the bottom. The full proposal (chapter 1 to 4) must not exceed 20 pages (excl. cover, content and annex.)*

*The submission of the full proposal is made via the ProMeta platform at the following link:]* <https://ivf.helmholtz.de/>

Applying Helmholtz Center: ....

Date: dd.mm.2025

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# Project overview [max. 1.0 page]

* 1. Key data on the planned project

|  |  |
| --- | --- |
| Project Title |  |
| Call No and Acronym | KA-06 – ACRONYM [*Please use “Call No & Acronym” also for your files]* |
| Helmholtz Center(s) and Partner Institution(s) |  |
| Coordinator | [Name][affiliation, e-mail, phone] |
| Requested INF Funding in total | ###.### TEUR |
| INF-share of each Center | Center #1: ###.### TEURCenter #2: ###.### TEUR (please delete if not relevant)Center #3: ###.### TEUR (please delete if not relevant) |
| Total Budget (incl. matching) | ###.### TEUR |
| Planned Start of funding |  |
| Planned duration of funding |  |
| Keywords | [Up to 10 keywords relevant to the project research topic] |
| Corresponding research fields | [ ]  Energy[ ]  Earth & Environment[ ]  Health[ ]  Information[ ]  Aeronautics, Space and Transport [ ]  Matter |

Note: Please tick all corresponding research fields (but two at the least) pertaining to your proposal.

* 1. Summary in English [max. 0.5 page]

Text

* Text
* Text
* Text

Text

* 1. Zusammenfassung auf Deutsch [max. 0,5 page]

Text

* Text
* Text
* Text

Text

# Project description

* 1. Define the challenge: Research question and its socio-economic relevance

*[Key questions:*

* *Define the research question: What major challenge does the project address in line with the objectives of this call? What is the specific ambition of the project? And if applicable, please explain its relevance to the current state of R&D in this context?*
* *Clarify the originality of the scientific question and explain how the topic of the proposal differs from or complements existing research activities in the programs, centers or ongoing initiatives?*
* *Identify who else besides your consortium is working on this question in the international research environment. How is your consortium positioned in this context?*
* *Formulate one or more specific goals: What tangible results do you expect within 3 years?*
* *Outline the potential impact: If successful, how could the knowledge gained impact society and/or the research environment? What is the long-term vision?]*

Text

* 1. Define the Research approach

*[Key questions:*

* *Explain the approach and methods used to address the research question/challenge and elaborate on the research design: how is the project draw on skills and competencies from different research fields, centers and scientific domains?*
* *Explain how the research question is divided into sub-aspects or sub-projects: How do the parts correspond to the central research question?*
* *Outline the potential risk: What would be a possible make-or-break point for your approach?*
* *Think about diversity issues: Do your research questions, theory concepts, methods of data collection or analysis include gender- or diversity-related aspects? Are different groups affected differently by your expected outcomes or potential use cases?]*

Text

* 1. Transfer strategy

*[Key questions:*

* *What applications or use cases do you envisage, and how are you aiming to achieve tangible outcomes or impact in this respect?*
* *What potential target group of scientific and non-scientific stakeholders (business cases, industry, user-groups, customers, associations) do you (intend to) involve in the project?*
* *What processes and methods are planned for involving of users, stakeholders, or market-related industry partners (including co-creation or co-development) at the various stages?]*

Text

* 1. Define the required competencies and networking of the consortium

*[Key questions and key aspects:*

* *Introduce partners, their competencies and specific contributions to the research question. What preparatory work and research conditions (e.g. infrastructures, data facilities/tools) qualify the consortium to engage with the research question?*
* *Illustrate how the project relates to your regular research activities, in particular with regard to PoF programs/topics or LK1]*
* *If applicable, name the stakeholders from industry, the public sector, politics and society for whom your research or transfer-oriented solutions are relevant, and those with whom you will collaborate.*
* *Present your collaboration strategy explaining the expected contributions of the involved groups and stakeholders and underlining the added value of the network.]*

Text

* 1. Talent promotion and diversity: Approach to support talent recruitment and early careers

*[Key aspects and questions:*

* *Describe your approach to recruiting and developing talent, particularly early career researchers. Describe how you build and maintain a diverse research team that benefits from the different perspectives and backgrounds of its members.*
* *Refer to the Helmholtz Doctoral Guidelines and the Helmholtz Guidelines for the Postdoctoral Phase and explain which existing concepts and measures in your centers you intend to use for the implementation of talent development and to leverage aspects of diversity?*

Text *not more than 1 page]*

* 1. Open Science: Define the Open Science concept

*[Key questions:*

* *Explain how the project is committed to the principles of Open Science by referring to the Helmholtz Open Science Policy (https://os.helmholtz.de/open-science-in-helmholtz/open-science-policy/): how does the consortium provide open access to scientific textual publications, Open and FAIR research data and research software (wherever possible and appropriate)?*
* *Optional: Indicate whether the project uses Citizen Science methodology in individual sub-projects and how it contributes to the core project.]*

Text  *not more than 0.5 page]*

# Project structure, Implementation and Dissemination

* 1. Project structure & Management: Define the structure and function

*[Key aspects and questions:*

* *Provide an overview of the project structure in an organizational chart.*
* *Describe the project management.*
* *How are responsibilities distributed within the team? Who will be responsible for project management, how is scientific development reflected during the project’s period, and how are essential instruments / field of action of the project are managed, e.g. monitoring the transfer concept, promoting talent?*
* *How does the project design support collaboration and coherence of the overall project? What dependencies and synergies exist between the project components or sub-projects?*
* *How does the project structure promote networking with stakeholders and users (as defined above)?*

Text

* 1. Project implementation: Activities, milestones and deliverables

*[Key aspects and questions:*

* *Describe the work packages, major tasks and involved partners (Please name the coordinating PI, responsible centers/partners).*
* *Describe what you expect to achieve by the end of the project (sub-project), and what are your milestones and deliverables will be (please use a Gantt Chart with a bullet point explanation of work packages and respective milestones)?*
* *Can you provide actual and target values are set for selected performance indicators and, if so, please specify the values that describe the desired development (actual values for 2026 and target values for completion of the project 2028)?*
* *Outline of the work packages dedicated to the transfer activities within the project and define suitable indicators to describe or measure the outcome and the impact of the application and/ or translation success, including the increase in TRL. If the TRL indicator is not applicable, please define an equivalent but specific type of performance measurement to describe an appropriate demonstration of the application or transfer success of the project. If possible, please refer to the transfer indicators defined in the respective transfer strategies of the centers.*

Text

* 1. Approach to realize synergies for the Helmholtz quantum Community

*[Key aspects and questions:*

* *What exchange formats do you propose to share the lessons learned from the use cases of the funded projects with each other and with the Helmholtz Quantum Community, thus promoting the impact of the Quantum Use Challenge and the further development of the quantum network?*

Text

* 1. Dissemination, usability, exploitation of results [Verwertungsplan]

*[Key issues to be addressed - a brief response to the three bullet points should be given in the application text.* ***The Utilization Dimensions table should be completed as far as possible in accordance with the Guiding Questions and attached to the annex****:*

* *How can the expected research results and activities be further disseminated, utilized or communicated in order to reach potential users, stakeholders and target groups - including those in related domains or areas of application?*
* *What further developments of the project results, what next steps towards application do you think are likely and how relevant do you consider them to be?*
* *In the case of a successful outcome, please outline who should undertake the next phase or the next innovative steps for the successful implementation of the project results and how this should be approached?]*
1. Financial Resources
	1. Contribution and function of planned resources

*[Explain the type of resources – personnel (in Full Time Equivalent FTE over time), material costs, investments (if applicable) -– needed for the project and specify how your own contributions (matching funds) will be used. Note that matching funds can be provided in form of direct in-kind resources or in cash. Please indicate the uses that are applicable here and the financial magnitude of each category, to the extent that estimates can be made. Please also indicate whether resources will be provided from INF funds or your own funds.*

* ***Personnel*** *[number & function of staff (FTE/ x-month) in each category as in the example]:*

*0.8-1 Postdoc/36 month (e.g. Scientific Manager); 1 Postdoc/36 month (sub-project A) etc.*

*1.5 PhD/36 month (sub-project A), 2.25 PhD/36 month (sub-project B) etc.*

*0.75 Technician/24 month, etc.*

* ***Material costs*** *(incl. travel):*

*Equipment & consumables (devices, office tools, lab supplies, IT etc.): Total X EUR*

*Travel expenses (conferences, field visits, accommodation etc.) Total X EUR*

*Administrative costs (recruiting, organization of conferences, PR): Total X EUR*

*Other material costs (buildings & labs rent costs, energy etc.): Total X EUR*

* ***Investments*** *(investments ˃ 100,000 EUR, procurements must be explicitly listed): Total X EUR*

*1 Device A, 2 Instruments B]*

* 1. Contributions by the Center, partners & funding from resources of INF

*[Please indicate for each partner and in total what contributions are planned to cover the required direct costs with annual details of personnel, material resources and investments from the Initiative and Networking Fund (INF) and from the partners' own resources (at least 25% of the IVF funding amount in direct costs, excluding overheads).*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Financial Budget in EUR** | **2026** | **2027** | **2028** | **Sum** |
| **Budget Initiative and Networking Funds INF**  |
| **Budget share leading *Center X***  | ###.### | ###.### | ###.### | ###.### |
| Personnel | ###.### | ###.### | ###.### | ###.### |
| Material costs (incl. travel) | ###.### | ###.### | ###.### | ###.### |
| Investments | ###.### | ###.### | ###.### | ###.### |
| **Budget share of Partner *Y***  | ###.### | ###.### | ###.### | ###.### |
| Personnel | ###.### | ###.### | ###.### | ###.### |
| Material costs (incl. travel) | ###.### | ###.### | ###.### | ###.### |
| Investments | ###.### | ###.### | ###.### | ###.### |
| **Budget share of Partner / Univ. *Z***  | ###.### | ###.### | ###.### | ###.### |
| Personnel | ###.### | ###.### | ###.### | ###.### |
| Material costs (incl. travel) | ###.### | ###.### | ###.### | ###.### |
| Investments | ###.### | ###.### | ###.### | ###.### |
| **Total Budget INF** | **###.###** | **###.###** | **###.###** | **###.###** |
|  |
| **Total budget** | **2026** | **2027** | **2028** | **Sum** |
| **Own contribution leading *Center X***  | ###.### | ###.### | ###.### | ###.### |
| Personnel | ###.### | ###.### | ###.### | ###.### |
| Material costs (incl. travel) | ###.### | ###.### | ###.### | ###.### |
| Investments | ###.### | ###.### | ###.### | ###.### |
| **Own contribution of Partner *Y***  | ###.### | ###.### | ###.### | ###.### |
| Personnel | ###.### | ###.### | ###.### | ###.### |
| Material costs (incl. travel) | ###.### | ###.### | ###.### | ###.### |
| Investments | ###.### | ###.### | ###.### | ###.### |
| **Own contribution of Partner/ Univ. *Z***  | ###.### | ###.### | ###.### | ###.### |
| Personnel | ###.### | ###.### | ###.### | ###.### |
| Material costs (incl. travel) | ###.### | ###.### | ###.### | ###.### |
| Investments | ###.### | ###.### | ###.### | ###.### |
| **Own contributions by all partners**  | **###.###** | **###.###** | **###.###** | **###.###** |
|  |
| **Total budget** | **2026** | **2027** | **2028** | **Sum** |
| **Budget INF** | ###.### | ###.### | ###.### | **###.###** |
| **Own budget** | ###.### | ###.### | ###.### | **###.###** |
| **Total budget** | **###.###** | **###.###** | **###.###** | **###.###** |

# Annex

* 1. List of Principal investigators

|  |  |
| --- | --- |
| Name |  |
| Affiliation |  |
| Current position |  |
| Research expertise |  |
| h-index |  |
| Key publications | 1. Text
2. Text
3. Text
4. Text
5. Text

[5 most important with DOI] |
| Please indicate the part(s) to which the PI contributes | * Text
* Text
* Text
 |

* 1. Principal Investigators contributions to the project
* *[Please show in a separate matrix to which part of the project (sub-project / work package) a PI contributes.]*
	1. Utilization dimensions of the project
* *[Please insert the table from chapter 3.3 with your answers here.]*

|  |  |
| --- | --- |
| **Utilization Dimension** | **Guiding Questions** (If applicable, please answer the following questions) |
| Scientific or technical prospects of success | * How will the results of the project be disseminated?
* How can the results be used for public tasks, or cooperation with other institutions in academia or industry?
* Will the results impact the training of young researchers?
* Can the results open up new areas for research and development?
* How will technological progress affect the use of your project results? What is the role of technical standards and non-technological developments?
 |
| Economic prospects of success | * Who needs the results? Who are the users/ customers? What are the benefits?
* If applicable, what steps will be taken and when to realize the exploitation/ enter the market?
* What will be the steps/ timeline to realize the exploitation/market entry?
* Will property rights/patents be applied for as part of the project? If so, who will own them and how will they be used, or will they be licensed to third parties?
* What are the risks associated with the planned exploitation?
 |
| Scientific and economic sustainability | Scientific applicability and broader dissemination: Can the results be used for e.g.:* Integration of the approaches/ results into the core-funded research (PoF program/topic)?
* Implementing further research (e.g. plans for follow-up activities/proposals)?
* Deepening results in theses and dissertations?
* Adoption of the findings in research and teaching?
* Transferring the results to related fields of knowledge or new domains?
 |

* 1. Declaration by the applicant on the exclusion of double funding
* *[Declaration by the applicant that the proposed Quantum Use Challenge project is not funded in whole or in part by any other funding organization and is not already funded by the PoF core funding.]*

**Explanation**

|  |  |
| --- | --- |
| Has the project been submitted to other funding organizations? | [ ]  No [ ]  Yes, namely: |
| Has the project topic already been addressed in this way in the PoF? | [ ]  No [ ]  Yes, namely: |
| Has the project already received public funding? | [ ]  No [ ]  Yes, namely: |

* 1. Letters of support from the participating institutions (mandatory)
* *[Please include letters of support from each participating institution in the consortium (from the responsible board of directors of the respective Helmholtz Center or the responsible management of the partner), supporting the application and committing to provide the required matching funds if funded.*
* *No specific format is required and no original letters need to be sent or digitally signed! The letter of support should be addressed to the following recipient:*

*Helmholtz-Gemeinschaft Deutscher Forschungszentren e.V.*

*Prof. Dr. Otmar D. Wiestler*

*Impuls- und Vernetzungsfonds*

*Anna-Louisa-Karsch-Str. 2*

*10178 Berlin]*