[Title of the proposal]

Proposal in the programme Major Research Instrumentation as per Art. 91b GG

[Responsible spokesperson]

[Applying institution]

<Grey texts are intended to provide guidance for completing the form and should be deleted prior to submitting your proposal. Black text should be retained as presented here in the submitted document.

The title of the proposal should be a vendor-neutral equipment name, equal to entry in the elan-portal.

The funding programme Major Research Instrumentation as per Art. 91b of the German Basic Law is described in the respective guidelines with proposal preparation instructions (DFG form 21.1). The guidelines and the proposal preparation instruction are to be followed when submitting a proposal.

www.dfg.de/formulare/21_1

The DFG published notes and information for some technologies and types of instrumentation (e.g. electron microscopes, mass spectrometers, central IT-systems) that are to be considered when preparing the proposal

www.dfg.de/wgi/notes_information

If you have questions about how to use this template (e.g. when applying for multiple similar instruments or package proposals), please contact the DFG head office prior to preparing the proposal:

www.dfg.de/en/wgi

>

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1. Proposal overview

[Title of the proposal]

1.1 Summary

<Vendor-neutral and generally understandable description of the instrument and the key objectives of the proposal. Do not use names of person or provide information about instrumentation that would allow identifying a company or vendor. This text should be equal to the summary within the elan-portal. Maximum of 3000 characters, no special characters.>

[text]

1.2 Responsible spokesperson

<Identical with the name provided the elan portal, under the section: Leader of the working group that will primarily use the equipment. Only one person possible.>

[text]

1.3 Most relevant institutions, institutes, or representatives

<Applying university and faculties mainly using the instrument. Additionally, institutions, institutes or persons can be mentioned that are significant in respect to financing, usage share, operation, or site of operation. Only mention protagonist central to the proposal, detailed information is to be provided in chapter 2.>

[text]

1.4 Tabular overview of cost

<The subsequent table should represent a brief overview of the requested funds requested only listing main items. The table can be adjusted or extended if necessary. A detailed breakdown of individual position will be done in chapter 4 on instrument configuration. Please check for consistency with entries in table 4.1. The total sum is identical to the requested funding amount in the elan portal.>

Instrument name (vendor neutral)	EUR (incl. VAT)
[Main instrument]	[amount]
[Accessory instrument]	[amount]
[Accessory instrument]	[amount]

Additional costs, if not included in the quotes provided (e. g. transport, customs, installation, and training)	[amount]
Minus third party contributions (e.g. non-university research institutions)	[amount]
Total requested funding amount (rounded up to full thousands)	[amount]

[text]

1.5 Connections with other applications

<Name the reference number of preceding proposals, but also other larger projects like CRC proposals under review, if they are of relevant to this proposal and shortly describe the relation.

If further proposals with a direct or scientific connection to this proposal are planned, please provide a title for such proposals together with a prospective date for submission. Explain why the applications are not put forward together.

Please take note, that in some cases, the review process for an instrument is only insufficiently possible without knowledge about currently planned or already applied for major instrumentation. In such cases, it is recommended to contact the responsible person for the technology in the DFG head office in order to clarify whether preparation of a package proposal would be appropriate.>

[text]

2. Operation and usage concept

<Entries in this chapter refer to the level of the applying university and if applicable other relevant or involved institutions. Detailed information about individual working groups and projects will be provided in chapter 3 Use in research. Please check entries for consistency.>

2.1 Existing instrumentation at the location

2.1.1 Existing Equipment (related to the requested instrument)

<Please list the currently existing equipment in similar to the requested instrument in a table. Please include all devices with a corresponding functionality - also those with differing performance - that are available at the university and at the location. Supplement the table with explanatory notes, for example regarding ore facilities.>

Name, manufacturer, and type	Financed through (e.g. DFG project reference)	Commissioning (year)	De-commissioning (year)	Hours in operation per annum	Location, responsible person, field of operation
[text]	[text]	[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]	[text]	[text]

[text]

2.1.2 Planned instrumentation

<Please list the requested device and other planned purchases in relation to the requested instrument in a table. If applicable, provide further explanations below the table.>

Name, manufacturer, and model	Financed through (e.g. DFG project reference)	Commissioning (year)	De-commissioning (year)	Hours in operation per annum	Location, responsible person, field of operation
[text]	[text]	[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]	[text]	[text]

[text]

2.1.3 Is the instrument a replacement for an existing device?

<If the proposed instrument replaces another piece of equipment, please elaborate, how the existing instrument was used until now far (providing annual hours of operation for research and service and maintenance) and its future use. Please explain why the replacement is necessary.>

[text]

2.1.4 Was there a previous proposal (potentially only for partial funding) to acquire this instrument?

<If yes, when and at which organisation?>

[text]

2.2 Presentation of the operational and usage concept

2.2.1 Expected annual operational hours:

[text]

2.2.2 Usage distribution

<Please provide the intended usage distribution. Each working group that claims a relevant usage share should provide a corresponding Chapter 3. Further minor use (possibly also in the context of use in a device centre or independently by a non-university institution) should be described this under the tables.

Please note: In the case of an independent usage share by a non-university institution, the corresponding percentage of the investment sum must be taken over by the latter and deducted from the total necessary costs.

Major research instrumentation is purposed for a predominant use in research. In this regard in relation to the usage described in chapter 3 in general, only 10 % operating time can be allocated to other purposes. A usage share larger than 20% for other purposes than research is not possible.>

	Institution	Usage share (%)
1.	[text, e.g. faculty, institute, clinic]	[text]
2.	[text]	[text]
3.	[text]	[text]
...	[text]	[text]
	Total sum	100 %

Corresponding head of institution or working group with a relevant usage share:

	Name	See chapter	Usage share (%)
1.	[text, e.g. head of working group A]	[3.1]	[text]
[...]	[text, e.g. head of other working in institution 1.]	[3….]	[text]
[...]	[text]	[3….]	[text]
[...]	[text]	[3….]	[text]

If applicable description of further scientific usage, if not addressed in a dedicated chapter.

[text]

2.2.3 Is a decentral operation (within an individual working group) or a centralized operation (within a core facility, instrumentation centre) intended? Is there an overarching concept of the university regarding technology platforms?

<Please take note and consider the DFG statements and information available to certain technologies, which might be relevant for the preparation of the proposal (www.dfg.de/wgi/notes_information). In case of a centralized usage in an existing core facility the key figures of operation within the last two years should be provided in a table containing: Name of working group and affiliation, usage hours per annum, potentially publications, non-operational hours and hours for service and maintenance. In case the technologies output can better be quantified by the amount of generated Data, please provide the common quantifications and units to the respective scientific community). Please mention the registration of the core facility in the DFG research infrastructure portal RIsources (risources.dfg.de/en) if applicable. If extensive relevant information is available, (e.g. institutional concepts and strategies) please consider providing these as separate attached documents.>

[text]

2.2.4 How is access to the instrument regulated? Are there written user rules? Is this information publicly accessible?

<If applicable, provide the respective web address.>

[text]

2.2.5 What handling of research data is planned and what relevant information infrastructure is in place?

<For technologies generating or operating with large amounts or special types of data and thus having special requirements (e.g. regarding data-storage, data processing and analysis, transfer to user, or privacy and data protection), the proposal needs to demonstrate, that the infrastructural environment and adequate data management plans are in place or will be created. The institutional and technical Aspects regarding data management have to be described (e.g. Concepts, Workflows, and available or needed Software). Existing overarching institutional IT-Concepts can be provided as attachments to the proposal. Please take note of the DFG Guidelines on the Handling of Research Data, which may be relevant to the proposal.>

Expected amount of data per year:

[text]

Concepts:

[text]

Available and required hardware and software:

[text]

2.3 Personnel for the operation of the instrumentation

2.3.1 Who is responsible for the instrument operation?

[text]

2.3.2 List the available personnel (scientific, technical, and administrative) that will secure the appropriate operation and maintenance of the device applied for in this proposal. How are these positions financed (state funding or third-party funding; fixed-term or permanent; full time equivalent (FTE)?

	Institutional position and academic title	Name	Financed by and employment status	FTE
1.	[text]	[text]	[text]	[text]
2.	[text]	[text]	[text]	[text]
...	[text]	[text]	[text]	[text]

2.3.3 Describe the qualifications of the available personnel for the assigned tasks.

[text]

2.3.4 How will necessary personnel, which is not yet available, be provided?

[text]

2.4 Environmental and infrastructural prerequisites for instrument operation

<The proposal needs to demonstrate that operational and infrastructural prerequisites for successful operation (e.g. air-conditioning, vibration isolation, work and radiation protection) are met or will be met at the time of installation. Results from measurement reports required by favoured manufacturers (e.g. electromagnetic interference or vibration isolation) are to be considered and should be provided as attachments.>

2.4.1 Detailed description of the instruments designated location, room conditions, and site plan:

[text]

2.4.2 Are building or construction measurements necessary/planned?

<If applicable, explain the current planning state and their implications for device commissioning (e.g. temporary installation at a different location).>

[text]

2.4.3 Designated location of the instrumentation at the time of commissioning:

Building (address)	Floor	Room number
[text]	[text]	[text]

2.5 Operating and follow-up costs

<At this point, provide information about the available resources ensuring the operability of the requested instrumentation. This includes direct costs for the operation, but also any type of consumables that may arise. Another aspect to be considered are the costs for upgrades. This includes IT equipment and software.>

Annual operating costs (e.g. Energy, water, consumables, other)	EUR
[text]	[amount]
[text]	[amount]

Annual maintenance costs (e.g. maintenance contracts, repairs, replacement and wear parts inspection fees)	
[text]	[amount]
[text]	[amount]
Further annual costs (e. g. software updates or upgrades)	
[text]	[amount]
[text]	[amount]
Total sum of annual operating and follow-up costs	[amount]

2.5.1 Description of the expected annual operating and follow-up costs:

[text]

2.5.2 Are operating and follow-up costs completely covered through the annual budget of the institution? Is there a central repair fund?

[text]

If not, how are operating and follow-up costs covered?

[text]

2.6 Concluding information

Contact details for the person responsible for the information included in this chapter:

Name: [text]

3. Use in research

<The scientific merits of the proposal are presented through the description of research projects in which the instrumentation is used. If a working group occupies a usage share of more than 10 % adding a dedicated section (3.1, 3.2, etc.) following this scheme is usually justified. Further usage and projects, e.g. for instrumentation situated in core facilities, can be described collectively in a separate section (3.x). If a large number of working groups are involved (e.g. in the case of central HPC systems), it can be useful to create several such sections, clustered by subject.>

3.1 [Name of working group]

3.1.1 Scientific orientation of the working group

<Summarized description of the scientific focus and research activities of the working group together with previous results.>

[text]

3.1.2 Description of the planned or ongoing research projects, justification of the necessity for the instrumentation being applied for

1. Detailed description of current research projects that justify the necessity for the instrumentation and its performance class:

<If applicable, name the funding body and briefly describe the focus and state of current projects in their relation to the requested instrumentation. Necessary specifications or components of the requested instrument in regard to its performance class should be elaborated providing detailed descriptions of exemplary experiment designs and requirements.>

[text]

2. Summary of the planned projects in which the instrumentation is to be used:

<For planned projects, describe the project objectives, time of implementation, and if applicable funding body.>

[text]

3.1.3 List of publications

<List of all publications that were used in this section as a reference – both by the individuals involved in the proposal and other authors. A maximum of ten of the most important project-specific publications by the individuals involved in this section may be highlighted in bold or other markings. Please indicate the following where possible: authors, titles, journal/book, year/volume, page, DOI; list only published works; cf. Guidelines for Publication Lists:

www.dfg.de/formulare/1_91.>

3.1.4 Further information to justify the necessity of the instrumentation being applied for

1. Tabular list of current and previous third-party funded projects of the last five years:

Funding body	Reference number	Title	Funding amount
[text]	[text]	[text]	[amount]
[text]	[text]	[text]	[amount]
[text]	[text]	[text]	[amount]
[text]	[text]	[text]	[amount]
[text]	[text]	[text]	[amount]

2. Justification of the necessity for the procurement of the instrumentation, its performance class and equipment with accessories:

<Related to the working group: e.g. workload / utilized capacity of the existing instrumentation, provision of additional measurement methods, testing of new measurement methods; other reasons.>

[text]

3. Information on the members of the working group who will use the instrumentation:

	Job title, acad. degree	Name
1.	[text]	[text]
2.	[text]	[text]
...	[text]	[text]

4. Use of the instrumentation in research collaborations:

<If applicable, related to the working group: within the university and with other institutions, including non-research institutions, and industrial enterprises; if necessary, describe your scientific interest in the specific cooperation (as opposed to economic or other interests).>

[text]

5. Planned total usage time of the instrumentation for the working group during the first twelve months after commissioning (in hours):

[text]

3.1.5 Existing instrumentation

<Please list all major instrumentation including IT-resources that are available to the working group for the described research. Instrumentation can belong to the working group itself, be accessible through collaborations or available in core facilities.>

Type and function, manufacturer and model	Installation site / operated by	Type of procurement or financing	Usage duration (hours/year)
[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]
[text]	[text]	[text]	[text]

[text]

3.1.6 Concluding information

Contact details for the person responsible for the information included in this chapter:

Name: [text]

3.2 [Name of working group]

<Information in accordance with the specifications under 3.1>

[Text]

3.3 [Name of working group]

<Information in accordance with the specifications under 3.1>

[text]

3.x [Further use in research]

<A separate section can be added for central institutions (e.g. core facilities) or groups of people or work units that collectively require more than 10% of their use. The scheme of section 3.1 can be used as a guideline. The section should include a description of the units using the instrument, with the list of the most important instrumentation-related publications in the bibliography restricted to a maximum of 10 publications in total. Exemplary individual projects that clearly demonstrate the necessity for the procurement of the instrument or justify special performance features or functionalities should be presented.>

[text]

4. Configuration of the instrumentation

<This chapter serves to justify the amount of funding requested for the procurement of a device that corresponds in performance class and configuration to the requirements of the projects described. Of relevance to the review process is a description of a market research, which is carried out by comparing specific device configurations based on meaningful and comparable offers or corresponding manufacturer information, that specify the prizes of individual components of the instrumentation.

Please note: The DFG funding is independent of a manufacturer. Offers enclosed with the application and the evaluation of the market situation are non-binding for the appropriate procurement of the large research device.>

4.1 Exemplary / favoured Configuration of the Instrumentation

<Please provide an exemplary and possibly preferred device configuration with costs documented by current offers or corresponding manufacturer information. List essential components or accessories in the table that are relevant in relation to the total costs. In the case of an independent usage share by a non-university institution, the corresponding percentage of the total investment sum must be taken over by the latter and deducted from the application. This also applies to other third-party contributions, e.g. from third-party funded projects etc.>

Main instrument	
[Name of the instrument]	
Consisting of the components:	EUR
[text]	[net amount]
[text]	[net amount]
[text]	[net amount]
Minus discount	[amount]
Value added tax (VAT)	[amount]
Subtotal main instrument	[gross amount]

Accessories or components of additional manufacturers/suppliers:	EUR (incl. VAT)
[text]	[amount]
[text]	[amount]
Subtotal accessories and components	[amount]

Additional costs, not included in above quotes (e.g. transport, toll, installation and training)	[amount]
Minus third party contributions (e.g. non-university institutions)	[amount]

Total sum of the application (rounded-up to full thousands)	[amount]

Costs above are according to the quote(s) for the following main instrument:

Manufacturer:	[text]
Type:	[text]

4.2 Devices, manufacturers / providers that are considered or taken into account for the proposed instrumentation

<Please ensure comparability through similar or identical configurations and performance classes. For the configurations under consideration, comparative offers, listing prices for individual components or corresponding manufacturer information should be enclosed.>

Type, manufacturer/supplier	Main components	EUR (incl. VAT)
[text]	[text]	[amount]
[text]	[text]	[amount]
[text]	[text]	[amount]

[text]

4.3 Description and justification of the requested performance class

<Here in regard the total use of the instrumentation and the summarized requirements for the described projects. This section should be neutral to individual manufacturers and consist of general descriptions of required features and specifications or technical components.>

4.3.1 General requirements (prize / performance class):

[text]

4.3.2 Required specifications for the projects described in detail:

[text]

4.4 Market research assessment and weighing of the criteria for a selection

<Explanation of the market research carried out with regard to suitable device technologies. Comparison of the individual configurations taken under consideration, weighing the criteria for later selection based on specifications, price / performance ratio, compatibility with existing equipment, follow-up costs or other aspects.>

[text]

4.5 Special connections to the manufacturer/supplier

<Description of special connections to one of the manufacturers / suppliers that could be considered. In particular, disclosure of an active role in a company.>

[text]

4.6 Configuration outline

<If the requested instrumentation is, for example, an in-house construction, a more complex system or a combination of several devices, please provide a configuration sketch to illustrate the structure and functional context.>

[text]

4.7 Concluding information

Contact details for the person responsible for the information included in this chapter:

Name: [text]

5. List of attachments

A- Scientific CVs of persons most relevant to the proposal
   a. [Name]
   b. [Name]
   c. …

B- Quote(s) or corresponding manufacturer information for the exemplary/favoured configuration of the instrumentation
   a. [Manufacturer]
   b. [Manufacturer]
   c. …

C- Quote(s) or corresponding manufacturer information for the alternatively considered configurations of the instrumentation
   a. [Manufacturer]
   b. [Manufacturer]
   c. …

D- Further attachments (e.g. IT-concepts, usage rules, cooperation agreements, research data management plans)
   a. …
   b. …
   c. …