

# [Title of the proposal]

*Proposal under the State Major Instrumentation programme*

[Applying institution]

[Federal state]

[Institution responsible for operating the instrumentation]

[Responsible spokesperson]

Requested funding: [€ ... ]

## General Information

<Grey texts are intended as guidance when completing the form and should be deleted or replaced prior to submitting your proposal. Black text should be retained in the submitted document.

The length of the proposal should be such that it is concise and easy to read for the reviewers and committee members and supports a well-founded assessment in accordance with the review criteria.

[www.dfg.de/formulare/10\\_205](http://www.dfg.de/formulare/10_205)

The State Major Instrumentation funding programme is described in the respective guidelines (DFG form 21.2). The guidelines and the relevant proposal preparation instructions are to be followed when submitting a proposal.

[www.dfg.de/formulare/21\\_2](http://www.dfg.de/formulare/21_2)

The DFG issues notifications and information regarding certain technologies and types of instrumentation (e.g. electron microscopes, mass spectrometers, central IT-systems): these must be taken into account when preparing the proposal:

[www.dfg.de/wgi/notes\\_information](http://www.dfg.de/wgi/notes_information)

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

[www.dfg.de/wgi](http://www.dfg.de/wgi)

Regarding the text fields on the cover page:

The **title of the proposal** should be a designation of the instrumentation which is not bound to a specific manufacturer and identical to the entry in the elan portal.

The **amount of funding** must be identical to the information on the elan portal and match the information under 6.1 and 6.2. It includes the guaranteed state funding.

**Table of contents**

1. Proposal Summary .....	3
2. Operation and Usage Concept .....	4
3 Use in Research .....	10
3.1 [Name of working group] .....	10
3.2 [Name of working group] .....	12
3.3 [Name of working group] .....	12
3.[x] [Further usage] .....	12
4. Use in Teaching and Training .....	13
5 Use in Clinical Care .....	15
6 Configuration of the Instrumentation .....	17
7 List of Attachments .....	20

# 1. Proposal Summary

## 1.1 Preliminary remarks, motivation

Provide a brief description of the reasons for submitting the proposal stating the institutional, financial and organisational circumstances relevant to the project (e.g. in connection with an appointment, construction project, restructuring, replacement purchases).

[Text]

## 1.2 Summary

<The focus here is on the intended scientific use: provide a brief, plain-language description of the requested configuration of the instrumentation and the scientific projects for which the instrumentation is to be used, using the same wording as on the elan portal. Do not mention names of persons or details that allow a particular company to be identified. Maximum of 3000 characters, no special characters.>

[Text]

## 1.3 Requested configuration

<Provide a brief description of the major instrumentation requested and its performance class, including any components and accessories to be included.

[Text]

## 1.4 Links to other proposals

<Name the reference numbers of any preceding proposals that are relevant to this proposal, as well as any other larger-scale projects that are under review such as CRC proposals, for example, and explain how these are linked to the current proposal.

If further proposals are planned which are directly linked to this proposal in terms of content or scientific background under the programmes Major Research Instrumentation (FUGG) or State Major Instrumentation (LAGG), please provide a title for such proposals together with a prospective date for submission. Explain why the proposals are not being submitted together.

Please note that in some cases, it is not fully possible to carry out the review process for major instrumentation proposals without knowledge of other major instrumentation that is planned or has been requested. Here, it can make sense to submit a joint proposal (proposal package). In such cases, we recommend contacting the person responsible for the relevant instrumentation category at the DFG Head Office.>

[Text]

## 1.5 Other information

<Describe any other relevant aspects for special consideration. For example, if you have used “artificial intelligence” (AI) in the form of generative models for text and image creation when preparing your proposal, this must be disclosed here in a scientifically appropriate manner. For more information, see the [Research Integrity portal](#). >

[Text]

## 2. Operation and Usage Concept

<Entries in this section refer to the applicant university, as well as other relevant or involved institutions where applicable. Detailed information about individual working groups and projects will be provided in section 3 on use in research. Please check entries for consistency.>

### 2.1. Existing instrumentation at the site

#### 2.1.1. Existing equipment

<Please provide a tabular breakdown of the current equipment showing how it relates to the requested instrumentation. Include all items of instrumentation with comparable functionality/technology that are available at the university and at the site, including those with differing performance data. Supplement the table with explanatory notes, for example regarding core facilities.>

No.	Designation and model (funding, reference where applicable)	Commissioning and de-commissioning (year – year)	Usage duration (hours/year)	Site, responsible person, type of use
1.	[Text]	[Text]	[Text]	[Text]
2.	[Text]	[Text]	[Text]	[Text]
3.	[Text]	[Text]	[Text]	[Text]
4.	[Text]	[Text]	[Text]	[Text]

[Text]

#### 2.1.2. Planned instrumentation

<Provide a tabular breakdown of the requested item of instrumentation and other planned purchases relating to it. Add further explanations below the table where applicable.>

No.	Designation and model (funding, reference where applicable)	Commissioning/new or replacement procurement (year/replacement of no.)	Usage duration (hours/year)	Site, responsible person, type of use
1.	[Text]	[Text]	[Text]	[Text]
2.	[Text]	[Text]	[Text]	[Text]
3.	[Text]	[Text]	[Text]	[Text]
4.	[Text]	[Text]	[Text]	[Text]

[Text]

#### 2.1.3 Is the item of instrumentation a replacement?

<If the requested item of instrumentation is a replacement, please explain how the existing instrumentation has been used to date (stating the operating hours for research and service/maintenance) and how it will be used in the future. For what reason and to what extent is a replacement or upgrade required? Can parts of the existing instrumentation continue to be used?

[Text]

## 2.2. Presentation of the operation and usage concept

### 2.2.1. Expected hours of operation per year:

<Brief description of the anticipated operating hours and the usual allocation of set-up times, preparation, measurement/production operation and follow-up. For what periods of time (e.g. hourly, daily or weekly) are usage shares allocated? Are there plans to carry out long-term tests or automated operation?

[Text]

Expected annual operation hours:

[Text]

### 2.2.2. Usage distribution

<Please indicate the distribution of usage envisaged for the instrumentation here. The details of usage are set out in sections 3 (research), 4 (training and teaching) and 5 (clinical care) in accordance with the structure provided here.

Please also list additional usage shares (e.g. by third parties) or different types of usage share and explain them below the tables.>

	Institution	Usage share (%)
Research		
1.	[text, e.g. faculty, institute, hospital]	[Text]
...	[Text]	[Text]
Teaching and training		
1.	[Text]	[Text]
...	[Text]	[Text]
Clinical care		
1.	[Text]	[Text]
...	[Text]	[Text]
	Total sum	100%

Heads of institutions or working groups with own usage share. Training/teaching and clinical care are usually only described in a single section applicable to one entire institution:

	Name	See section	Usage share (%)
1.	[text, e.g. head of working group A]	[3.1]	[Text]
[...]	[Text, e.g. additional head, institution 1.]	[3....]	[Text]
[...]	[Text]	[3....]	[Text]
[...]	[Text]	[3....]	[Text]

The employment of the above-mentioned persons at the above-mentioned institution is secured by employment contract for the duration of the five-year period after commissioning:

[yes/no]

[If not: explanation ...]

Where applicable, describe planned additional or different use of the major instrumentation:

[Text]

### 2.2.3. Information on centralised or decentralised use and embedding in the university's overarching concepts

<Please refer to the [DFG notifications and information](#) on individual instrumentation technologies that may be relevant to the proposal submission. In the event of centralised usage in an existing core facility, the key figures showing usage/utilisation capacity within the last two years should be provided here (in a table containing the usage figures broken down for the existing instrumentation: name of working groups along with their affiliation and hours of usage per year, publications where applicable; non-operational periods and periods for service and maintenance. In the event of technologies for which utilisation capacity can be better measured in terms of data output, the usual designations and quantifications in the specialist area should be used). Please mention the registration of the core facility in the DFG research infrastructure portal [Rsources](#) if applicable. If extensive relevant information is available, (e.g. institutional concepts and strategies), please consider providing these as separate attachments, attachment D.>

[Text]

### 2.2.4. Description of access to the instrumentation/usage regulations

<Explain how access to the instrumentation is regulated. If publicly accessible usage regulations exist, please provide the relevant web address. If not, explain the conditions of access. For DFG information on usage regulations, see Guidelines for Instrumentation Usage Costs and Core Facilities ([DFG form 55.04](#)).>

[Text]

### 2.2.5. Handling of research data, embedding in information infrastructures

<In the case of technologies that generate or operate with large amounts or special types of data and are therefore subject to 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 an appropriate infrastructural environment and data management plans are in place or will be created. Here, the institutional and technical aspects of data management are to be described as envisaged (e.g. concepts, workflows and any software that is available or needed). Existing overarching institutional IT concepts can be provided as attachments to the proposal in attachment D. Please note the [DFG Guidelines on the Handling of Research Data](#) as relevant to your proposal.>

Expected amount of data per year:

[Text]

Concepts:

[Text]

Available and required hardware/software:

[Text]

### 2.3. Sustainability aspects

<Please reflect here on how the concept of sustainability in terms of resource conservation is taken into account or is relevant in connection with the proposal or the instrumentation technology being requested. For further information, see the cross-disciplinary catalogue of guiding questions at:

[www.dfg.de/reflection\\_sustainability](http://www.dfg.de/reflection_sustainability)>

[Text]

### 2.4. Personnel required for operating the instrumentation

#### 2.4.1 Person responsible for operating the instrumentation

[Text]

#### 2.4.2 Existing personnel for operation and maintenance

<Please state which personnel (scientific and technical, administrative where applicable) is available for the appropriate operation and maintenance of the instrumentation and how the financing of personnel is arranged (state funding/third-party funding/full-time equivalent)>

No.	Name, academic degree, job designation	Funding	FTE
1	[Text]	[Text]	[Text]
2	[Text]	[Text]	[Text]
...	[Text]	[Text]	[Text]

The employment of the above-mentioned persons is secured by employment contract for the duration of the five-year period after commissioning:

[yes/no]

[If not: explanation ...]

#### 2.4.3 Describe the qualifications of the available personnel for the assigned tasks.

[Text]

#### 2.4.4 How will personnel be provided which is currently not available?

[Text]

**2.5. Spatial prerequisites for operating the instrumentation**

<In the case of instrumentation whose operation is subject to special requirements (e.g. air conditioning, vibration insulation, occupational safety and radiation protection), proof is required that the infrastructural prerequisites for operation have been or will be created. Here, the results of any necessary measurements (e.g. interference field and vibration analyses) must also be taken into account and should be submitted as an attachment to the proposal.>

**2.5.1 Detailed description of the designated location of the instrumentation, spatial conditions, site plan:**

[Text]

**2.5.2 Are construction or conversion measures necessary/planned?**

<Where applicable, explain the current planning status and how this impacts on the commissioning of the instrumentation (e.g. temporary installation at a different location).>

[Text]

**2.5.3 Location of the instrumentation at the time of commissioning:**

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

[Text]

**2.6 Operating costs and follow-up costs**

<Provide information about the available resources to ensure the operability of the requested instrumentation. This includes the direct costs of operation as well as any consumables, whether general or usage-related. Another aspect to be considered are the costs of updates and upgrades. This includes IT equipment and software. Please also indicate the costs of (project-) specific consumables that are necessary to prepare samples and carry out tests (e.g. solvents, carrier materials, reagents, antibody panels, etc.). In the case of significant costs (more than €100,000 per year), please explain under point 2.6.1 the amount of funds explicitly available for the planned investigations, e.g. from third-party funding.>

Annual operating costs (e.g. energy, water, gases, general consumables)	€
[Text]	[Amount]
[Text]	[Amount]
Annual service costs (e.g. maintenance, 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 costs and follow-up costs	<b>[Amount]</b>
Total cost of usage-related consumables per year	<b>[Amount]</b>

2.6.1 Explanation of the anticipated annual costs for operation, follow-up and consumables.

[Text]

2.6.2 Funding of operating costs and follow-up costs

[Text]

## **2.7 Concluding information**

Contact details of the person responsible for the information included in this section:

Name: [Text]

## 3 Use in Research

<The scientific justification of the proposal is presented based on 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 separate section (3.1, 3.2, etc.) is usually justified. An additional section (3.[x]) can be used to describe further usage and projects, e.g. in the case of instrumentation situated in core facilities. 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. Chapter 3 should not exceed a total of 25 pages.>

### 3.1 [Name of working group]

#### 3.1.1 Scientific orientation of the working group

<Summary of the scientific focus and research activities of the working group together with research outcomes gained to date.>

[Text]

#### 3.1.2 Description of planned or ongoing research projects, rationale for the necessity of the requested instrumentation

##### **a) Summary of current projects in which the instrumentation is to be used:**

<Where applicable, name the funding organisation and briefly outline the current state of the art. Provide evidence of why the desired performance class is required by including a concrete description of experimental requirements, exemplary tests and preliminary work.>

[Text]

##### **b) Summary of planned projects in which the instrumentation is to be used:**

<Provide a summary of the project objectives, the date of planned implementation and, where applicable, the name of the funding body.>

[Text]

##### **c) Use of the instrumentation in research collaborations**

<Where applicable with reference to the working group; within and outside the university, including non-university institutions or with industrial companies; briefly state your own academic interest in each case.>

[Text]

##### **d) Description of special requirements in terms of the performance class and equipment**

<With reference to the working group; e.g. provision of additional measurement methods or extended measurement ranges, testing of new measurement methods; other reasons.>

[Text]

**e) Intended usage time of the instrumentation in hours**

<Brief description of the planned amount of usage by the working group including an indication of the expected hours of usage per year.>

[Text]

**3.1.3 List of publications**

This list should **only** contain those works that you cited in this section.

The font used for the publication list should not be less than Arial 9 point.

For both new proposals and renewal proposals, you can refer to your own works and those of others; there is **no limit** to the **total number** of publications listed. Works which are not in the public domain are not considered publications and cannot be cited. An exception is made for papers that have already been accepted for publication, in which case the manuscript and the editor’s confirmation of acceptance must be enclosed.

**A maximum of ten of your own** publications that are most relevant to the project can be highlighted in bold print or in some other way. Even if there are several applicants, the maximum of ten highlighted works may not be exceeded. Please note the “Guidelines for Preparing Publication Lists” (DFG form 1.91):

[www.dfg.de/de/formulare/1\\_91](http://www.dfg.de/de/formulare/1_91)>

[Text]

**3.1.4 Third-party funded projects related to the instrumentation technology for which proposals were submitted in the last five years:**

Funding body (reference)	Title	Duration	Funding amount
[Text]	[Text]	[Text]	[Amount]
[Text]	[Text]	[Text]	[Amount]
[Text]	[Text]	[Text]	[Amount]
[Text]	[Text]	[Text]	[Amount]
[Text]	[Text]	[Text]	[Amount]

**3.1.5 Concluding information**

Contact details of the person responsible for the information included in this section:

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 and other sections where applicable.>

[Text]

## **3.[x] [Further usage]**

<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 specifications in section 3.1 can be used as a guideline. The section should include a description of the units using the instrumentation: a maximum of ten of your own publications that are most relevant to the project can be highlighted in bold print or in some other way. Even if there are several applicants, the maximum of ten highlighted works may not be exceeded.

In particular, please describe any exemplary individual projects that clearly demonstrate the necessity of procuring the item of instrumentation or justify special performance features or functionalities.>

[Text]

## 4. Use in Teaching and Training

<Please fill out this section where there are plans to use the instrumentation for teaching and training purposes. >

### 4.1 Use of the instrumentation

#### 4.1.1 Description of the field of the institution concerning teaching and training:

[Text]

#### 4.1.2 Compilation of the existing and planned special training programmes and courses (exact name) that lead to the application for this instrumentation:

<Describe the content and scope of the courses as well as the extent to which they are directly linked to the instrumentation.>

[Text]

#### 4.1.3 List the number and type of current and planned courses, providing the number of participants:

<This section can be filled out in the form of a table or a text.>

[Text]

### 4.2 Existing essential instrumentation utilised in these courses:

<Please list all instrumentation including IT resources that are relevant and available for the courses.>

Type and function, manufacturer and model	Installation site / operated by
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]

[Text]

### 4.3 Reasons why the requested instrumentation, including performance class, specifications and its configuration, is required for training purposes.

<Please provide a comparison with other teaching methods using alternative types of equipment or resources.>

[Text]

#### 4.4 List of the lecturers and teaching personnel responsible for operating the instrumentation during the courses

<This refers to those who are responsible for operating the instrumentation during the course.>

	Name	Field of expertise and occupation	Job title
1.	[Text]	[Text]	[Text]
2.	[Text]	[Text]	[Text]
...	[Text]	[Text]	[Text]

[Text]

#### 4.5 List of publications

<Optional, see notes in section 3.1.3>

[Text]

#### 4.6 Concluding information

Contact details of the person responsible for the information included in this section:

Name: [Text]

## 5 Use in Clinical Care

<Please fill out this section if there are plans to use the instrumentation for the purpose of clinical care.>

### 5.1 Description of the institution (hospital, institute) and its clinical responsibilities in this area that led to a proposal being submitted for the instrumentation

[Text]

### 5.2 Existing instrumentation

#### 5.2.1 List of existing instrumentation at the institution used for clinical care relevant to this proposal:

<Please list both technically similar instrumentation and other types of instrumentation that are available to provide care and treatment as relevant to the proposal.>

Type and function, manufacturer and model	Installation site / operated by
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]

[Text]

#### 5.2.2 Apart from the applicant university, which other institutions at the university's site operate instrumentation with similar functionality?

Type and function, manufacturer and model	Installation site / operated by
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]
[Text]	[Text]

[Text]

### 5.3 Usage/utilisation capacity:

<Provide a rationale for the procurement of the requested instrumentation with regard to the planned examination and treatment programmes (e.g. existing instrumentation is obsolete or overloaded, additional diagnostic and therapeutic methods required) and justify the planned performance class and accessories.>

[Text]

**5.3.1 Total number of examined/treated persons in the last year:**

<Number of inpatients examined or treated, specifying the bed occupancy rate in percent and number of outpatients.>

[Text]

**5.3.2 Number of examinations or treatments carried out in one year using instrumentation of the type requested, including the duration of use per examination or treatment:**

[Text]

**5.3.3 How where examinations or treatments carried out in the past?**

[Text]

**5.4 Physicians in charge of operating the instrumentation during examinations or treatments**

	Name	Field of expertise and occupation	Job title
1.	[Text]	[Text]	[Text]
2.	[Text]	[Text]	[Text]
...	[Text]	[Text]	[Text]

[Text]

**5.5 List of publications**

<Optional, see notes in section 3.1.3>

[Text]

**5.6 Concluding information**

Contact details of the person responsible for the information included in this section:

Name: [Text]

## 6 Configuration of the Instrumentation

<This section serves to justify the amount of funding requested for the procurement of an item of instrumentation that meets the needs of the research projects described in terms of performance class and configuration. Market research is also relevant to the review: this is carried out by comparing specific instrumentation configurations based on itemised, informative and comparable quotes or the relevant manufacturer information.

Please note: DFG funding is independent of a manufacturer. Quotes attached to the proposal and the evaluation of the market situation are non-binding in terms of the appropriate procurement of the major research instrumentation

### 6.1 Instrumentation, manufacturers/providers taken into account for selection

<Please ensure comparability based on similar or identical configurations and performance classes. For the configurations under consideration, comparative quotes should be attached with a breakdown of prices for individual components or the relevant manufacturer information.>

Model, manufacturer/supplier	Main components	EUR (incl. VAT)
[Text]	[Text]	[Amount]
[Text]	[Text]	[Amount]
[Text]	[Text]	[Amount]

[Text]

### 6.2 Exemplary/preferred configuration of the instrumentation

<Please provide an exemplary and possibly preferred instrumentation configuration with costs documented based on current quotes or the relevant manufacturer information. List essential components or accessories in the table that are relevant in relation to the total costs. In the event of an independent usage share assigned to a non-university institution, the relevant percentage share of the investment sum must be assumed by this institution and deducted from the requested funding. This also applies to other third-party contributions, e.g. from third-party funded projects etc.>

<b>Main item of instrumentation [designation of the instrumentation]</b>	
Consisting of the components:	€
Basic item of instrumentation [Text]	[net amount]
Component 1 [Text]	[net amount]
Component 2 [Text]	[net amount]
Component ...	
Discount deducted	- [Amount]
Value added tax (VAT)	[Amount]
<b>Subtotal main item of instrumentation</b>	<b>[gross amount]</b>

<b>Accessories:</b>	€ (incl. VAT)
[Text]	[Amount]
[Text]	[Amount]
<b>Subtotal accessories and components</b>	<b>[Amount]</b>

Additional costs where not yet included (e.g. transport, customs, installation and training)	<b>[Amount]</b>
<b>Less third-party contributions</b> (e.g. non-university institution)	<b>- [Amount]</b>
<b>Total requested funding amount (rounded up to full thousands)</b>	<b>[Amount]</b>

According to the quote/estimate for the following main item of instrumentation:

Manufac- turer:	[Text]
Model:	[Text]

### 6.3 Description and justification of the requested performance class

<This refers to overall usage as derived from the requirements described in the proposal. This description should be neutral in terms of manufacturer and based on the previous description of required performance features and technical components.>

#### 6.3.1 General requirements (price/performance class):

[Text]

#### 6.3.2 Required specifications for the projects described in detail:

[Text]

### 6.4 Assessment of market situation and weighting of criteria with a view to selection

<Explanation of the market research carried out with regard to suitable instrumentation technologies.

Comparison of the individual configurations considered, weighting of criteria for later selection based on specifications, price/performance ratio, compatibility with existing equipment, follow-up costs or other aspects.>

[Text]

### 6.5 Special links with the manufacturer/supplier as relevant to the proposal

<Description of special links to one of the manufacturers/suppliers being considered. In particular, mention here any contractual relationship with or shareholding in a company.>

[Text]

### 6.6 Configuration outline

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

[Text]

## **6.7 Concluding information**

Contact details of the person responsible for the information included in this section:

Name: [Text]

## 7 List of Attachments

- A- Academic CVs <of the main individual or individuals involved in submitting the proposal according to [DFG form 53.200](#), grouped in a single PDF>
- B- Quote(s) or relevant manufacturer information relating to the exemplary/preferred configuration of the instrumentation, <grouped in single PDF>
- C- Quotes or relevant manufacturer information relating to configurations of comparable instrumentation, <grouped in a single PDF>
- D- Other attachments <where applicable, e.g. IT concepts, usage regulations, cooperation assurances, research data management plan, grouped in a single PDF with table of contents>