Guidelines for submitting applications under the DFG's Major Research Instrumentation Programme pursuant to Section 91b of the German Basic Law (GG) in the context of Core Facilities

Preliminary remark: As central infrastructures, large-scale research facilities form an essential basis for high-performance, efficient and sustainable research. Embedded within core facilities, they enable coordinated use, ensure quality and provide access for a broad scientific user community (for further information: see Appendix).

All new applications for major equipment must be fully (100%) integrated into existing core facilities (where available) and freely bookable by all users (integrated equipment). Before applying for major equipment, applicants must consult with the management of the thematically relevant core facilities regarding the integration of the equipment.

Only in extreme exceptional cases (e.g. for highly specialised, highly sensitive equipment that must be constantly modified by researchers in the course of method and equipment development) may an exception be made to this rule, so that a piece of equipment cannot be booked via the core facility (associated equipment). In such cases, the Research Committee's administrative office must be informed at an early stage.

Differentiation/Distinction – Integrated and Associated Equipment

Integrated equipment refers to equipment that is fully integrated into the Core Facility and is 100% bookable. **Equipment with an expectedly broad user base** (e.g. confocal microscopes or cell analysers/sorters), which in principle can be operated by users following a technical induction, **must be 100% integrated into existing Core Facilities.** Large-scale equipment integrated into Core Facilities is subject to special protection by Saarland University and is given priority treatment by the Research Committee (e.g. in the event of repairs). The operational readiness of equipment in Core Facilities is therefore more securely backed financially.

Associated equipment can be booked via Core Facilities at 0%, but is organisationally integrated (there are clear points of contact, and documentation requirements apply as in the Core Facilities). Associated equipment does not enjoy the same level of protection (e.g. in the event of necessary repairs) as integrated equipment. Associated equipment should and will remain an absolute exception and requires particularly strong justification from the applicants.

Additional note on usage fees for equipment: In future, applicants will also need to secure third-party funding for the use of major equipment in order to pay the usage fees. The exact procedure for the transition phase is still being finalised. However, where possible, no working group should suffer financial disadvantages as a result of the introduction of the Core Facilities.

Specific guidance on completing the application form for the DFG's 'Major Research Instrumentation programme under Article 91b of the German Basic Law (see DFG Form 21.10 – 09/24 and, in particular, the DFG information sheet: DFG Form 21.1 – 04/26)

It is strongly recommended that you obtain two or three previously successful large-scale equipment applications as templates before submitting your application! The Research Committee's administrative office will be happy to assist in finding these if you are unable to do so within your immediate network.

Cover sheet

When submitting the application, please note that Saarland University (not the University Hospital) submits the application for funding under Article 91b of the German Basic Law. Please therefore use Saarland University as your affiliation.

Justification for selecting a specific piece of equipment: When submitting the application, a type of equipment within a specific performance class with defined specifications is described. **Do not commit to a preferred piece of equipment at this early stage**, and do not name any manufacturers yet (the only exceptions being points 2.1.2 and 4.2). It is only in section 4.2 that the preferred instrument configuration is described, and in sections 4.3 and 4.4 ***that this is justified***, ***where possible with specific, quantifiable and verifiable arguments***. It is strongly recommended that, in the scientific sections, the advantages of the instrument for research be substantiated robustly using preliminary data.

The following sections from the DFG application templates should be given particular attention.

Re 2.1.1 Existing equipment

Here, you must not only specify the equipment available to your own research group, but also, as comprehensively as possible, the equipment available on the respective campus and, where applicable, across the entire university. Staff from the relevant CFs may be able to provide information here.

2.1.2 Planned instrumentation

The equipment applied for must be listed here.

2.2.2 Usage distribution:

Users are actual individuals (or research groups). A Core Facility is not a user.

Example (percentages are, of course, adjustable):

1 Applicant (40%, this should generally be the highest percentage)
2 Prof. X (15%)
3 Prof. Y (15%)
4 Prof. Z, WMB (15%)
5 Other users (15%)

2.2.3 Information on centralised or decentralised use and embedding in the university's overarching concepts (sample formulation on the example of HOM - to be adapted individually)

Case 1: Device is integrated into an existing core facility: It must be described where the device will be installed and how access will be regulated. The existing core facility should be named and briefly described (staff at the CF should be able to assist with this). A link to the website of the existing core facility should be provided.

Case 2: The equipment is to be integrated into a core facility that has yet to be established: *If a* core facility has yet to be established (e.g. on the basis of appointment agreements), this will entail additional administrative work. The Research Committee's administrative office must therefore be informed as soon as possible. Different wording would need to be used in the application. E.g.: *"It is the shared vision of the applicants and Faculty XY at Saarland University to establish a central core facility for XZ and to embed it within the overall concept of the core facilities (link to the parent website). Bringing together the relevant equipment, methods, processes and procedures under one roof offers [....]. Until this core facility is fully established, the equipment applied for here is to be operated as follows. [...]*". Outstanding issues [....] must be agreed with the University Board and the relevant dean's office prior to submitting the application. The Research Committee's administrative office serves as the first point of contact and coordinator.

2.2.4 Description of access to the instrumentation/usage regulations (sample formulation - to be adapted individually)

If integrated into a core facility: "The general rules of use for the equipment are summarised in the terms of use for the UdS Core Facility **XY**. The equipment is available to all members of the UdS, clinicians and external users. Access is granted following training in the operation of the equipment by qualified staff. The online booking calendar is managed by staff of the respective Core Facility. A usage fee applies in accordance with the guidelines of the institution and the DFG.

The aim is to maximise the instrument's utilisation time and scientific benefit."

A web link should **be provided** to the **general terms of use for Core Facilities, the terms of use of the respective Core Facility, and its fee structure.**

It must be explained how the equipment is operated. E.g.: "As a rule, the equipment is used by the members of the individual research groups themselves (application mode). If no suitable personnel are available within the research groups, the work can be taken over and carried out by staff from the Core Facility (service mode)."

If you have any queries regarding the correct completion of the application form, please contactforschungsausschuss@uni-saarland.de or experienced colleagues you trust.

Appendix: Why do we need to integrate major equipment into Core Facilities?

Background: Why are we changing the structure?

Until now, major equipment has mostly been managed on a decentralised basis, leading to a fragmented landscape: varying usage rules, barriers to access and, in some cases, low utilisation rates. A key disadvantage of this structure is that, under these circumstances, the use of such equipment is **not eligible for funding** from third-party funding bodies such as the DFG, which represents a significant loss for the university as a whole. As large-scale equipment is funded by taxpayers' money and is the property of the university, it stands to reason that it should be made accessible to as wide a user base as possible. Recently, applications were not funded by the DFG because integration into a core facility was insufficient.

Our goal: A win-win for all involved

The establishment of core facilities aims to benefit **everyone** – particularly the original applicants.

Specific benefits for researchers

- **Professional support:** Specialist staff handle maintenance, documentation, training on the equipment and invoicing, so that researchers have less to worry about when it comes to organisational matters.
- **Support with applications:** In future, staff at core facilities will take the lead in supporting applications for new major equipment.
- **Scientific support:** Staff offer support with experimental design and data analysis.
- **Networking:** CFs promote interdisciplinary collaboration across disciplinary boundaries.

There are also further benefits

- **Investment security:** Revenue from the Core Facilities (usage fees) can be reinvested, and staff with relevant expertise can be retained within the Core Facilities.
- **Operational reliability:** Equipment in CFs is given priority by the Research Committee when repairs are required.
- **Competitiveness:** Uniform standards and the sustainable use of public funds strengthen Saarland University's position in international competition.
- **Increased third-party funding:** Transparent usage fees make equipment use eligible for funding; this leads to increased third-party funding revenue.

How we address concerns

To ensure fair and productive use, clear solutions have been developed for common concerns:

- **Planning certainty instead of bottlenecks:** Intensive use by applicants remains the norm. Fair prioritisation is ensured through early booking and consultation with the Executive Management and higher-level bodies (Steering Committee). Separate solutions for special cases (e.g. intensive use during specific periods that are scientifically justified) are developed by the Core Facilities.
- **Protection of intellectual property:** Data and methods remain **the sole property of the users**. There is no difference from measurements carried out within one's own research group. However, CF staff will be listed as co-authors for significant scientific contributions (beyond the provision of standard protocols) in accordance with good scientific practice.
- **Financial fairness:** To regulate the burden on intensive users, specific **discount models** can be incorporated into the terms of use. Funding solutions are also currently being agreed for the transitional phase.
- **Reducing bureaucracy:** In the medium term, the administrative burden on researchers will be reduced through the centralisation of reporting and accounting obligations within the CF structure.

Core facilities mean more support, more funding opportunities and greater security for your research, without creating disadvantages for applicants for large-scale equipment.