

A detailed wireframe 3D model of a particle accelerator complex. It features a large, elongated oval-shaped ring structure in the foreground, with various smaller components, including straight sections and smaller rings, extending into the background. The model is rendered in a light gray wireframe style, showing the intricate geometry of the facility.

CML Meeting on Preparing Status Report

April 29, 2024

(Topic contacts: F. Maas, T. Galatyuk, LK2: Y. Leifels, M.Block)

Coordination at GSI (for texts Status Report and Center Evaluation)



Program / Topic / LK II	GSI Contact / Responsible
Matter and the Universe (MU)	Yvonne Leifels
CML – Cosmic Matter in the Laboratory	Frank Maas / Tetyana Galatyuk
GSI MU Ion Facilities	Yvonne Leifels / M. Block (w/ R. Aßmann)

From Matter to Materials and Life (MML)	Thomas Stöhlker
Matter – Dynamics, Mechanism and Control	Sonja Bernitt / Alexandre Gumberidze
Materials – Quantum, Complex and Functional Materials	Eugenia Toimil-Molares
Life – Building Blocks of Life: Structure and Function	Christian Graeff
GSI MML Ion Facilities	Eugenia Toimil-Molares (w/ R. Aßmann)

Matter and Technologies (MT)	Ralph Aßmann
Accelerator Research and Development	Ralph Aßmann
Detector Technologies and Systems	Christian J. Schmidt (Silvia Masciocchi)
Data Management and Analysis	Thorsten Kollegger

Cross Cutting Activities / Innopool Projects	Texts coordinated by Thomas Stöhlker
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POF IV Cross Cutting Activities	<i>(as in 2022)</i>
Information and Data Management	Thorsten Kollegger; Silvia Masciocchi, Alexander Kessler
Materials Research	Manuel Vogel; Christina Trautmann
Quantum Technologies	Thomas Stöhlker; Jan Rothhardt, Ferdinand Schmidt-Kaler
Structural Biology and Biological Processes	Corinna Kausch; Claudia Fournier, Marco Durante
Radiation Research	Corinna Kausch; Marco Durante

POF IV Innovation Pool	<i>(as in 2023)</i>
ACCLAIM	Sabrina Appel
Data-X	Ralf Röhlberger, Thomas Stöhlker
FISCOV	Claudia Fournier, Marco Durante, Eugenia Toimil Molares
HBS-2	Winfried Barth
InnoVEEA	Jens Stadlmann
LUXE-QED	Matt Zepf
MaDQuant	Eugenia Toimil Morales
TANGERINE	Michael Deveaux

Indicators	Yvonne Leifels & program contact persons
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updated after meeting

Status Report

To be started: now!

- Chapters 2 by Program Contacts, Chapters 3 by K. Groß; -> R. Böhm: by 10. June 2024
- This version discussed in retreat: End of June 2024 (24.-25.6. or 27.-28.6., in DA oder Ffm, with all GSI contact persons, see slide 2)
- Have a draft by July 15
- General part to be submitted: 24. Sept. 2024 (for MV, ...)
- Give it to JSC, AR in Autumn 2024
- Submission final report: 1. Feb. 2025 (strict!)

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Chapter 2. Research Activities

Program 1

short introduction to the program; max. 2 pages, incl. graphic; (1 page from text elements from program speakers; 1 page GSI specific)

Topic 1

< 1/3 page per FTE (Scientists) as in GSI docum. of Vol. I; incl. some pictures (i.e. ~ 28 pages)

short introduction to the topic:
list of subtopics and where we contribute;

Challenges

Contribution of the center, current activities, previous work, and achievements

Future challenges

-> Consider questions to be answered in Evaluation Report

2.1 Program n [Text]

[Notes: Brief description of the current program, its strategy and the corresponding contributions of the research center at the level of topics and the entire program (up to 2 pages).]

[Key questions: See template for the review report, LINK.]

Examples

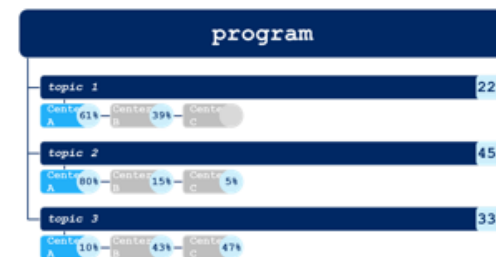


Fig. 1: Text

[Choose one of the examples to show the structure of the program]

[Text]

2.1.1 Topic n [Text]

[In-depth description of the contributions of the center to the topic including past and future challenges (less than 1/3 page per FTE).]

[Key questions: See template for the review report, LINK.]

[Text]

Five selected publications

- [1] Text
- [2] Text
- [3] Text
- [4] Text
- [5] Text

Pages in the status report

- Theory: 1-2 pages each
- Understanding the properties of hadrons and their excitation spectrum: 7-8 pages
- Establishing the QCD phase structure and understanding the microscopic properties of QCD matter at vanishing and high net baryon densities: 10-11 pages
- Understanding nuclear structure, nuclear reactions, and superheavy elements as well as their relevance for nuclear astrophysics: 10-11 pages
- Understanding the origin of the matter–antimatter asymmetry and testing fundamental symmetries: 2 pages

- Detector developments: HADES, SHE, FRS, FRS-Experimente, Gamma spectroscopy, R3B: 1 page each
- Accelerator developments: Sources, UNILAC, SIS18; 3-4 pages
- Green IT-cube: 1 page
- FAIR: 10 pages
- Deadline for the drafts: 8. June

- Topic: < 1/3 page per FTE (number scientists)
(coming: R. Böhm, Template with n° FTE and max. pages)
- FAIR under construction (LK II): 10 pages
- User facilities: 20 pages (MU + MML)

- Cross-cutting activities: ½ pages per activity to T. Stöhlker, if relevant for GSI: Info & Data Man.; Mat. Res.; Quantum Technol.; Structural Biol. & Biol. Processes; Radiat. Res.

Here also: ½ page per Innovation Pool Project to T. Stöhlker (will be shortened): ACCLAIM, Data-X, FISCOV, HBS-2, InnoVEEA, LUXE-QED, MaDQuanT, TANGERINE

2.2 User facility n [Text]

[In-depth Description of the LK II facilities including the research environment; i.e. national and international roadmaps and cooperation, strategic partners), costs, and personnel; past and future challenges, previous work and current activities, life cycle analysis, access and service for user, management current investments for the plants (up to 10 pages).]

[Key questions: See template for the review report, LINK.]

[Text]

Five selected publications

- [1] Text
- [2] Text
- [3] Text
- [4] Text
- [5] Text

2.3 Cross-cutting research activities [Optional]

[Brief description of the center's contributions to selected crosscutting activities of the research field (1 – 2 pages).]

[Text]

For text elements see Progress Report Matter 2023 by Vice President (coming).
Small participation in Innopool projects can be addressed in Topic text.

CVs of Scientists that ...

- have responsibility for a research field, or
 - make significant contributions to content/design of a research topic, and
 - (usually) have personnel responsibility for min. 5 FTE
 - YIG Leaders
- List of persons to be included (K. Füssel):
Suggestions discussed with program contact persons. Grouped by program, campus, topic.
Included in Vol. II once list is ready.

From Template Vol. II:

1 Scientific staff

Please no more than ½ a page per PI

Principal Investigator	Prof. Dr. Hermann von Helmholtz, * 1821
CV	Scientific degree: PhD in medicine / Friedrich-Wilhelm-Institut Berlin (1842)
	Previous positions:
	Professorships: Berlin, Königsberg
	Current position:
Recent research topic	Keywords
Publications (5 most important)	[1] Text
	[2] Text
	[3] Text
	[4] Text
	[5] Text

Different from Helmholtz template shown here, we will not include year of birth.

- Short CV with portrait (like in 2017), pictures to be taken centrally (Gaby Otto)
- Content like last time (see Vol.-II on seafiler)
- 2 CVs per page
- Plus names of additional scientists contributing to the program (like in 2017)

Old version from Status Report 2017:

Prof. Dr. Thomas Stöhlker *1959



Scientific degrees: Physics Diploma at University Giessen (1988), PhD at University Giessen (1991), Habilitation in Physics, University Frankfurt (1999)

Previous positions: Senior scientist at GSI (2003-2007), adjunct Prof. at the University Frankfurt (2004-2007); Prof. of Physics, University Heidelberg (2007-2012)

Professorship: Atomic Physics, University Jena (since 2012)

Current position: Acting Director of the Helmholtz Institute Jena (since 2009), Head of Atomic Physics Department of GSI (since 2007), Vize-Research Director of the GSI Helmholtzzentrum für Schwerionenforschung

Research Topics: Atomic physics with heavy ions, QED and strong field physics, relativistic collisions, photon matter interaction, X-ray imaging techniques

Publications

J. Ullmann et al., High precision hyperfine measurements in Bismuth challenge bound-state strong-field QED, Nature Communications 8, 15484 (2017)

V. Volotka et al., Nuclear Excitation by Two-Photon Electron Transition, Phys. Rev. Lett., 117, 243001 (2016)

B. Botermann et al., Test of Time Dilation Using Stored Li+ Ions as Clocks at Relativistic Speed, Phys. Rev. Lett. 113, 120405 (2014)

B. Marx et al., High Precision Measurement of Undulator Polarization in the Regime of Hard X-Rays, Applied Physics Letters 105, 024103 (2014).

R. Martin et al., Polarization Transfer of Bremsstrahlung Arising from Spin-Polarized Electrons, Phys. Rev. Lett. 108, 264801 (2012)

Further key scientists contributing to RU1:

Helmholtz Institute Mainz

Dr. Luigi Capozza (*1982), Dr. Alaa Dbeyssi (*1987), Dr. Cristina Morales Morales (*1976), Dr. Christof Motzko (*1985), Dr. Arne Wickenbrook (*1979)

GSI, Darmstadt

Dr. habil. Anton Andronic (*1966), Dr. Ralf Averbeck (*1968), Prof. Dr. Elena Bratkovskaya (*1966), Dr. Romain Holzmann (*1955), Dr. Yvonne Leifels (*1962), Dr. Matthias Lutz (*1964), Dr. Dariusz Miskowiec (*1962), Dr. Jerzy Pietraszko (*1972), Dr. Lars Schmitt (*1966), Dr. Christian Sturm (*1967), Prof. Dr. Alberica Toia (*1977)

Indikatoren, Abstimmung im FB Matter:

- Nur IST-Zahlen berichten
- Zentren mit Evaluation im Januar/Februar berichten Kennzahlen nur bis einschl. 2023, keine Angaben zu 2024er Zahlen.
- Zentren mit späterer Evaluation sollen prüfen was möglich und sinnvoll. Keine Stichtagszahlen, weil verwirrend.
- Für Jahre 2021-23 sollte (Summen-)Konsistenz mit den Programmfortschrittsberichten gegeben sein

Geschäftsstelle:

- Von Hochrechnungen oder Angaben zum Stichtag wird abgeraten (von GS), lieber Zahlen fürs Jahr angeben, mit Zeitangabe, wann sie erhoben wurden/dass vorläufig sind.

GSI:

- Wir berichten Zahlen für 2021-2024. Aber für das Jahr 2024 keine Finanzzahlen, mit Hinweis, dass diese zum Zeitpunkt der Evaluation noch nicht vorliegen.
- Anders als im Template geben wir auch Zahlen für Doktoranden an (Head Count or FTE?).

4	Number of core-funded scientists	FTE	
5	Number of third-party funded scientists	FTE	
5	Scientists in total	FTE	
7	Personnel in total	FTE	
9	core-financed costs (<i>full costs</i>)	TEUR	

Smaller rounds:

- Organized by Programm / Topics Reponsibles
- **Next meeting of CML: May 27, 3:00 p.m.**

In larger round:

- Responsibles for Programs + Topics: 1x / month
- Next meeting: **May 13, 8:30 a.m.**

Retreat Status Report:

- End of June (**24.-25.6. or 27.-28.6.**), reading + discussing the texts
- With Program + Topic Contacts (see slide 2)

First draft ready by July 15

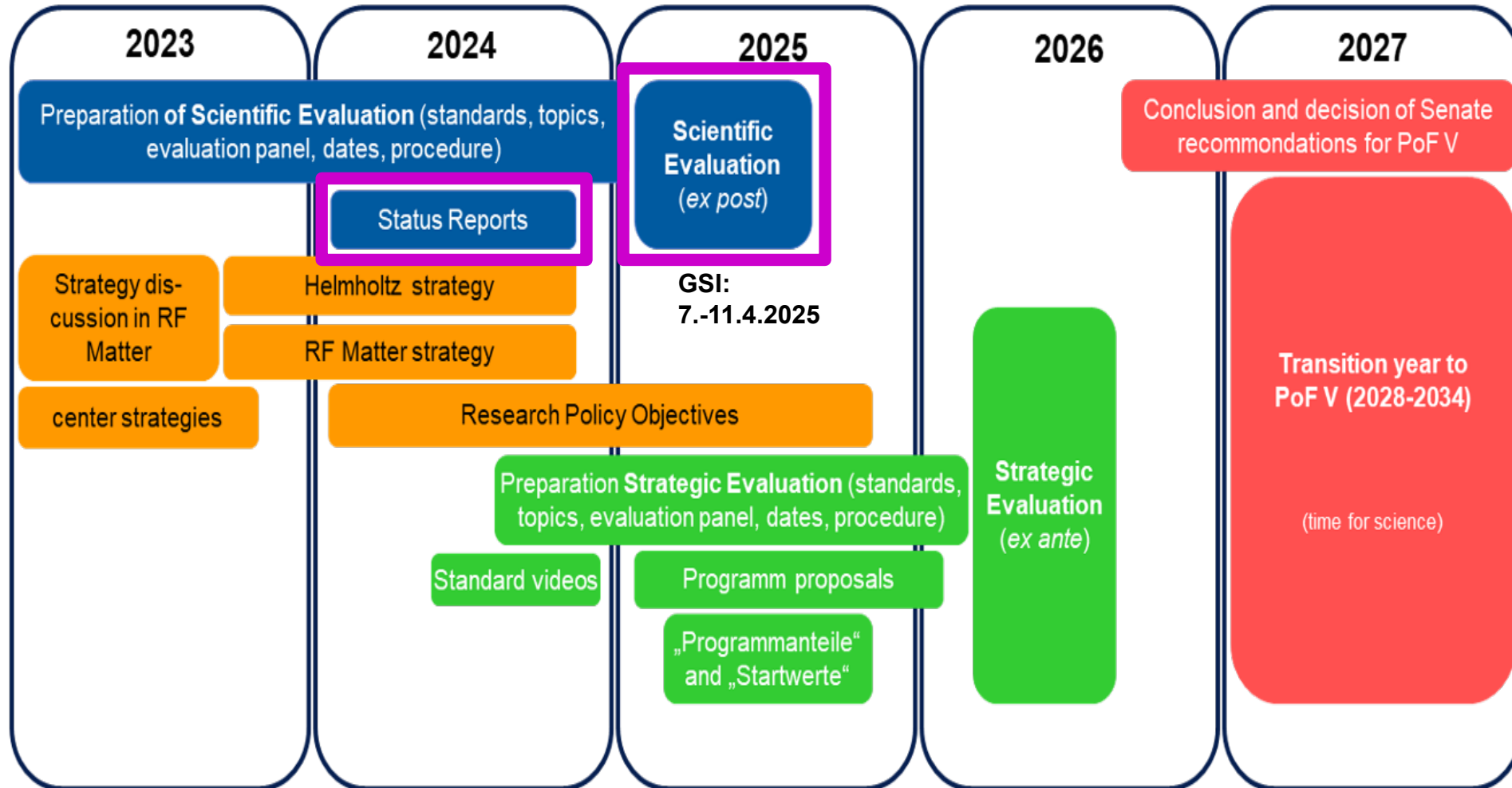
- **Documents on Seafire: POF4 / Center Evaluation 2025 / Status Report /**
a) On-site Evaluation April 2025, b) Status Report / ...
<https://sf.gsi.de/smart-link/d8e24872-4d26-4bdc-973b-7ccb8e26e254/>
incl. Guide to the Directory
- **On Seafire: Previous Status Report Center Evaluation (Scientific Evaluation) 2017:**
<https://sf.gsi.de/d/5cef32573ee84f1ebeb1/> (Vorschau)
<https://sf.gsi.de/d/5cef32573ee84f1ebeb1/?dl=1> (Download)
- **Indico page on previous Scientific Evaluation 2017**, incl. documents (for reviewers):
<https://indico.gsi.de/event/6309/timetable/?view=standard> /
<https://indico.gsi.de/event/6309/>
- **Seafire Folder on previous PoF IV_ Strategic Evaluation:**
<https://sf.gsi.de/d/c56ddf38ce6047dc825f/>

inform Y. Leifels, if access is not working (enter with Weblogin, then „Für mich freigegeben“)

- Input from Programs Contacts on Chapter 2, from K. Groß on Chapter 3, on Programs, Topics, User Facilities as very first draft
-> by **June 10, 2024 to Ralph Böhm**
- Retreat on texts Vol. I -> 25.6. before lunch (Tuesday) and 28.6. after lunch (Friday)
- A very first draft -> before summer break, i.e. by **July 15, 2024**
- General parts on GSI -> final by **Sept. 24, 2024** (for General Meeting (MV))
- Presentation to Supervising Bodies
 - Joint Scientific Council: 22.-23. October 2024
 - GSI-Aufsichtsrat: Nov. 14, 2024
- Deadline final Report: 2 months before Center Evaluation -> **Feb. 1, 2025**

PoF V Roadmap – Research Field “Matter”

Common actions and tasks



Center	Date	Duration	Chair
FZJ	27.01 – 31.01.2025	3 days	Giovanna
KIT	24.02 – 26.02.2025	3.5 days	KIM
DESY/Her eon	10.02 – 14.02.2025	4 to 4.5 days	Zaifmann
GSI	06.04 – 11. (12.?)04.2025	4 to 5 days	Rossi
HZDR	16.06 – 18.06.2025	3 days	Chair
HZB	12.05 – 16.05.2025	3 days	Rueg



Patrizia Rossi
Jefferson Lab (JLab)
Chair of the GSI evaluation board

- Requested by Helmholtz: navigable document, e.g. PDF, with internal links / references
- Supplied from Helmholtz: MS-Word-Templates & Glossary; Use American English, Corporate Design of Helmholtz
- Documents for Reviewers supplied electronically only! (prepare printable version in case... to be printed by Helmholtz, normal printer (consider this for links given in texts, e.g. short URL, QR codes, ...))
- For joint writing at GSI: ...
~~SciFlow? → no feedback from HGF ... Latex? → not universally used ...~~
- MS-Word again
 - though not optimal for collaborative work
 - please refrain from doing too fancy things regarding formatting, fonts etc., stick to standards and the template