



NIMFEIA

Deliverable D1.2

Protocol on appointment of Executive Board

Project Number	101070290
Project name	Nonlinear Magnons for Reservoir Computing in Reciprocal Space
Project acronym	NIMFEIA
Work Package	WP1 Management, dissemination and exploitation
Type	Report
Dissemination level	Public
Lead Beneficiary	HZDR
Due date of delivery	Month 1 – October 2022

1. Minutes of the first meeting of the NIMFEIA General Assembly

While drafting the Consortium Agreement for the NIMFEIA project, it was decided to change its governance structure with respect to the plans drafted in the proposal due to the small size of the NIMFEIA consortium, and omit instating an Executive Board as the supervisory body for the execution of the project. Therefore, this deliverable provides a protocol of the first meeting of the General Assembly (GA) which was held on the second day of the NIMFEIA kick-off meeting at Helmholtz-Zentrum Dresden-Rossendorf (HZDR) on 11 November 2022. Upon approval of the members, this meeting was open to all participants of the kick-off meeting.

1.1. Members

The Members to the General Assembly were the following:

Party		Members
Helmholtz-Zentrum Dresden-Rossendorf e.V.	HZDR	Katrin Schultheiss
Université Paris Saclay	UPS	Joo-Von Kim
Johannes Gutenberg-Universität Mainz	JGU	-
Stichting Radboud Universiteit	RU	Johan Mentink
GlobalFoundries Dresden Module One LLC & Co. KG	GF	Aleksandra Titova
Infineon Technologies Dresden GmbH & Co. KG	IFD	Klaus Knobloch

The representative from the Johannes Gutenberg-Universität Mainz (JGU) was present on the first day of the NIMFEIA kick-off meeting but had to leave unexpectedly before the beginning of the meeting of the General Assembly. Finding a substitute was not possible on such short notice. All topics were discussed bilaterally between the representative from JGU and the coordinator shortly after the meeting of the GA.

As stated in the Consortium Agreement, the meeting of the General Assembly was chaired by the coordinator, Katrin Schultheiss.

1.2. Topics

1.2.1. Management structure

The management structure for the NIMFEIA project was briefly explained. With six parties, the NIMFEIA consortium relies on the General Assembly as the ultimate decision-making and executive body of the consortium with one member from each party. The coordinator shall chair all meetings of the GA which shall be once every six months, either in person or by videoconference.

The coordinator is the legal entity acting as the intermediary between the parties and the granting authority. She shall prepare GA meetings (including drafting the agenda and taking minutes), propose decisions and monitor the implementation of decisions taken at GA meetings.

For further details such as voting and veto rights, the coordinator referred to the Consortium Agreement.



1.2.2. Work packages

The work package leaders were confirmed as listed in the following table.

WP No	Work package name	Lead Beneficiary	Leader
WP1	Management, dissemination and exploitation	HZDR	K. Schultheiss
WP2	Laboratory-scale experiments	HZDR	K. Schultheiss
WP3	Modelling the magnon reservoir in the GHz regime	UPS	J.-V. Kim
WP4	Materials and device fabrication	JGU	G. Jakob
WP5	Electrical read-out for wafer-scale integration	GF	A. Titova
WP6	Real-world data testing and benchmarking	RU	J. Mentink
WP7	Towards antiferromagnets (AFMs) and terahertz	RU	J. Mentink
WP8	Ethics requirements	HZDR	K. Schultheiss

1.2.3. Continuous Reporting

1.2.3.1. Milestones

The achievement of milestones has to be reported to the coordinator who will acknowledge this in the Funding and Tenders Portal.

No	WP	Name of Milestone	Lead	Due (month)	Due date
M1	1	Website online	HZDR	2	Nov. 2022
M2	1	Participation in 2 industry events	HZDR	24	Oct. 2024
M3	2	Implementation of microwave antennas facilitating scalability of the magnon reservoir	HZDR	18	March 2024
M4	3	Mode filtering technique implemented in micromagnetics code	UPS	4	Jan. 2023
M5	4, 5	Etch process for MTJs with sub-micron pillar size, TMR larger than 20% and the magnon reservoir as free layer developed	JGU	30	March 2025
M6	5	Microwave magnetic field detection via customized MTJs	GF	36	Oct. 2025
M7	6	Data handling scripts implemented to feed benchmark data sets into magnon reservoir simulations	RU	18	March 2024
M8	7	Adaptive time integration method implemented in machine learning simulations	RU	18	March 2024

1.2.3.2. Deliverables

A deliverable has to be prepared by the lead beneficiary and sent to the coordinator at least two weeks before the deadline. Alternatively, the deliverable can be uploaded to the HZDR cloud, the coordinator has to be informed by email in parallel. The coordinator then submits the deliverable through the Funding and Tenders Portal.

If a deliverable is delayed, the coordinator has to be informed well in advance to give enough time to inform the project officer.



Templates for the deliverables can be downloaded from the HZDR cloud. Currently, the templates are provided as word (Windows) and pages (Macintosh) files. It was discussed if also a latex template should be prepared to facilitate collaborative work using share latex. However, the members preferred to stick to word/pages which both allow working on the deliverables in the track-changes mode.

The following deliverables are due in the first year of the project:

No	Name of Deliverable	Lead	Type	Diss. Level	Due (month)	Due date
D1.1	Report from the kick-off meeting	HZDR	R	PU	1	Oct. 2022
D1.2	Protocol on appointment of Executive Board	HZDR	R	PU	1	Oct. 2022
D1.3	Project public launch	HZDR	DEC	PU	2	Nov. 2022
D8.1	OEI - Requirement No. 1: Appointment of Ethics Advisor	HZDR	ETH	SEN	3	Dec. 2022
D3.4	Report on the mode filtering technique implemented in micromagnetics code	UPS	R	PU	4	Jan. 2023
D1.6	Data management plan 1	HZDR	R	PU	6	March 2023
D1.10	Dissemination and exploitation plan 1	HZDR	R	PU	6	March 2023
D2.1	Report on characterization of vortex-based magnon reservoirs	HZDR	R	PU	12	Sep. 2023
D3.1	Report on the nonlinear magnon population dynamics in vortex-based reservoirs	UPS	R	PU	12	Sep. 2023

1.2.4. Cloud storage

As a joint storage solution, the HZDR cloud will be used which will provide long-term backup on HZDR servers. Currently, consortium members have access via a link and password. In future, consortium members will be provided a HZDR access account to allow automatic synchronization with the HZDR cloud. The coordinator will get the process started as soon as possible.

1.2.5. Dissemination and Exploitation Committee

The coordinator informed the consortium that the Dissemination and Exploitation Plan (DEP) has to be updated yearly and shared the current version as drafted in the proposal.

Additionally, at least three members from the consortium shall be appointed to the Dissemination and Exploitation Committee (DEC) whose tasks will be to assess the potential of inventions for applications, to support technology transfer and develop systematic exploitation strategies in biannual meetings. Rajko Buchwald (HZDR), Klaus Knobloch (IFD), Helmut Schultheiss (HZDR), and Johan Mentink (RU) agreed to be members of the DEC. Additionally, the coordinator will discuss with representatives from GF if one will be available to join the DEC.

1.2.6. Data Management Plan

The coordinator informed the consortium that the Data Management Plan (DMP) has to be updated yearly and shared the current version as drafted in the proposal.



A week before the GA meeting, the coordinator had learned about the possibility to use the HZDR Research Data Management Organizer, a web application to support the planning, implementation, and organization of research data management. The gathered information can be cast into textual forms suitable for funding agencies. The coordinator will explore further about the details and update the consortium.

1.2.7. Pre-financing

The coordinator informed the consortium that the pre-financing has been transferred to all beneficiaries at the beginning of October 2022.

1.2.8. Consortium Agreement

The coordinator informed the consortium that the Consortium Agreement has been signed by all parties.

1.2.9. Hop-on Facility Call

The coordinator informed the consortium that the proposal by the Iberian International Nanotechnology Laboratory (INL) in Braga, Portugal has been submitted for the Hop-on Facility Call on 9 October 2022, with Alex Jenkins as main contact. The proposal can be downloaded from the HZDR cloud.

1.2.10. Any other business

An Ethics Advisor needs to be appointed by the end of December 2022 (D8.1). A suitable candidate still has to be found, compensation for this task is not foreseen in the NIMFEIA budget. The coordinator will read the [guidelines](#) provided by the Commission, explore possible candidates and inform the consortium.

The next meeting of the General Assembly will likely be held via videoconference in March/April 2023. Since the Spring Meeting on Condensed Matter Physics of the German Physical Society will take place 26-31 April 2023 in Dresden, there is still the option to meet in person, depending on how many GA members will join the Spring Meeting.

The Annual Meeting 2023 will be hosted by the partner Université Paris Saclay in fall 2023. The Annual Meeting 2024 will be hosted by the partner Stichting Radboud Universiteit in October 2024.

The consortium discussed the possibility to initiate an online seminar for PhD students working in NIMFEIA to present their planned activities, progress during the project, discuss possible problems. Since hiring is still in progress, the topic will be brought up again by the coordinator early next year.

