

Helmholtz Young Investigator Groups – Annual Report

Disclaimer: The questionnaire is provided in English and can also be filled out in German.

All form fields with a red frame are mandatory and need to be filled out.
(If you cannot make an entry, please enter “–” or “n/a”.)

Core data		
Funding program	Helmholtz Young Investigator Groups	
Project ID number	VH-NG- 1105	
Project title	Novel soft X-ray spectroscopies for materials science	
Name of reporting person	Dr. Martin Beye	
Helmholtz Center	DESY	
Partner university	Universität Hamburg	
Helmholtz research field	Matter	
Reporting period [dd.mm.yyyy – dd.mm.yyyy]	01.01.2019-31.12.2019	
Number and length of cost-neutral extensions of the project (if applicable)	0	
Annual installment (reporting year)	Reference value (in EUR)	Actual value (in EUR)
Share of the Initiative and Networking Fund	125000	158098,83
Share of the Helmholtz Center	186000	172781,52

1	How do you assess the utilization of the current allocated annual installment until the end of the year? (forecast)		
Code	Item		
V1.1	I am planning to use	310000	EUR of this year's allocated planned installment. (The planned annual installments are listed in the contract, which was concluded between the Helmholtz Association and the Helmholtz Center.)

2	Please explain last year's expenses with regard to the following categories:		
Code	Item		
V2.1	Investment costs:		The main investment was into a high-resolution X-ray spectrometer as part of the UHV-apparatus constructed and built in the year before. An important smaller investment was the addition of a flexible sample exchange system, that allows for inserting and exchanging samples under UHV conditions.
V2.2	Personnel costs:		The paid personnel of the group consisted of the project leader and a PostDoc. A master student worked unpaid in the group and a PhD student in the group was paid via third-party funding (acquired in 2018).
V2.3	General expenses/material costs:		Most of the general expenses were spent for travel to measurement campaigns in France and Italy, as well as for travel to conferences and collaboration meetings. Material cost were spent on sample materials and general lab equipment.

3 How do you rate the following aspects?						
Code	Item	I fully agree	I agree	I partially agree	I agree less	I do not agree
V3.1	My research group has reached full development.	☒	☐	☐	☐	☐
V3.2	I am well connected with my university partner.	☐	☐	☒	☐	☐
V3.3	The status of my career development corresponds to my vision.	☒	☐	☐	☐	☐
V3.4	I am satisfied with my overall situation.	☒	☐	☐	☐	☐
V3.4C	Please list positive or critical aspects, if applicable: My host at DESY and the University Hamburg, Prof. Dr. Wurth, died suddenly and unexpectedly in 2019. Now, I take over some of his duties at DESY, which is a huge step forward in my career development, but the connection to the University suffered.					
V3.5	The working progress of my research group is according to my schedule.	☒	☐	☐	☐	☐
V3.6	The promises of the Helmholtz Center, e. g. regarding access to technology and infrastructure, financial independence, personnel responsibility are being kept.	☒	☐	☐	☐	☐
V3.6C	Please list positive or critical aspects, if applicable: -					

4 How do you assess the independence of your research group?			
Code	Item	Yes	No
V4.1	I can freely decide on the budget allocated to me as per the application.	☒	☐
V4.2	I continue to develop my research agenda autonomously.	☒	☐
V4.3	I make my own personnel decisions.	☒	☐

5	How do you assess the progress of the project?		
Code	Item	Yes	No
V5.1	Compliance with the timeline as described in the proposal	☒	☐
V5.1C	In case you deviated from the timeline, please give a brief explanation: -		
V5.2	Achievement of important milestones in line with the proposal	☒	☐
V5.2C	In case milestones have not been reached, please give a brief explanation: -		
V5.3	Compliance with the financial plan as described in the proposal	☒	☐
V5.3C	If changes to the financial plan have occurred, please give a brief explanation: -		

6	Please describe the scientific progress of the project in the reporting year along the individual work packages.
Code	Item
V6.1	Max. one page The project is structured around three workpackages: setting up a flexible instrument, modelling experiments as well as performing demonstration experiments. In 2019, the instrument was finalized with the last additions of the spectrometer and the sample exchange system. This workpackage is essentially finished with the successful operation of the so-called MUSIX instrument, as proposed in the timeplan. It has reached all milestones and the instrument is already strongly used in experiments at FLASH with up to 25% of the proposed and granted beam time at FLASH. Furthermore, a number of experiments using this instrument at PETRA at DESY have also been successfully performed. The experiments with this instrument (and also with other instruments at other facilities) have been so successful (and necessarily time-consuming), that a stronger focus has been put on the demonstration experiments, where also the core expertise of the group lies. A substantial number of experiments has been conducted successfully in 2019. The supporting modelling had to be limited to the necessary preparations for the experiments and will be performed in more detail in the analysis phase of the experiments for gaining a detailed and well-founded interpretation of the measured data. Due to the sudden loss of Prof. Dr. Wilfried Wurth, I took over some of his duties at DESY as an interim solution (the group leader position of FS-FLASH and the role as scientific head of FLASH), which limited my time available for core tasks of the group: essentially the modelling workpackage as well as for the preparation of publications. The already granted and scheduled number of experiments could not be compromised and made this shift of focus necessary. With the now more advanced experience of my PhD students and the PostDoc, I expect a larger number of publications in 2020.

7 How do you assess your career development and networking with the university?			
Code	Item	Yes	No
V7.1	I work closely together with the university and its structures (e.g. integration into the faculty council, doctoral procedures).	☐	☒
V7.2	I am gaining teaching experience.	☒	☐
V7.2C	If yes, please indicate the number of semester hours per week: 3		
V7.3	I am appointed to a joint junior professorship.	☐	☒
V7.4	I am appointed to a joint W2/W3 professorship.	☐	☒
V7.5	I have an option for permanent employment ("tenure").	☒	☐
V7.6	Please describe your foreseeable or planned future career prospects: My tenure at DESY is foreseen to be reviewed in 2020. The position for the scientific head of FLASH (a role that I currently fulfill temporarily) will be publicly opened in 2020, where I see good chances for my application.		
V7.7	I have taken advantage of the employer's support for family phases.	☐	☒
V7.8	Please describe your current function within the Helmholtz Center (position description): In addition to leading my own group, I currently assume the role of interim scientific head of FLASH and group leader of the scientific group at FLASH.		
V7.9	Please describe your current function within the university (e. g. also as a committee member): I do not fulfill an additional function at the university, besides teaching.		
V7.10	Please indicate the current status of networking with other actors (multiple answers possible): ☒ Cooperations at the partner university ☒ Cooperations with other universities in Germany ☒ Cooperations with universities abroad ☒ Cooperations with other non-academic research institutions in Germany ☒ Cooperations with non-academic research institutions abroad ☐ Cooperations with companies ☐ Cooperations with other organisations, namely -		

8 Please describe the current output of your group.			
Code	Item	Amount / total sum	N/a
V8.1	Peer-reviewed publications in the reporting year	3	☐
V8.2	Registered patents in the reporting year	0	☐
V8.3	Spin-offs in the reporting year	0	☐
V8.4	Acquisition of third-party funding in the reporting year (please mention the type and amount of funding as well as the involved persons): BMBF-Verbundforschung with Prof. Huse (University Hamburg)	1M€	☐
V8.5	Awards and recognitions (please include the names of the respective persons): -	0	☐
V8.6	Please describe which activities you have carried out in the area of knowledge and technology transfer: -	0	☐

9 How do you assess the personnel development measures and qualification? (Helmholtz Academy)				
Code	Item	Yes	No	N/a
V9.1	Have you fully attended the course “Leading Your Group”?	☒	☐	☐
V9.2	Have you implemented the acquired personnel development measures and the qualification plan?	☒	☐	☐
V9.3	Have you been assigned a permanent contact person?	☐	☒	☐
V9.4	Did you have opportunities for discussions with the institute management to reflect on your own development and career planning?	☒	☐	☐

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