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# Determinants and Effects of Cooperation in Homogeneous and Heterogeneous Research Clusters (DEKiF)

Questionnaire of the Web Survey



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German Centre for Higher Education Research and Science Studies limited liability company Research Data Center Research Data Center Introduction



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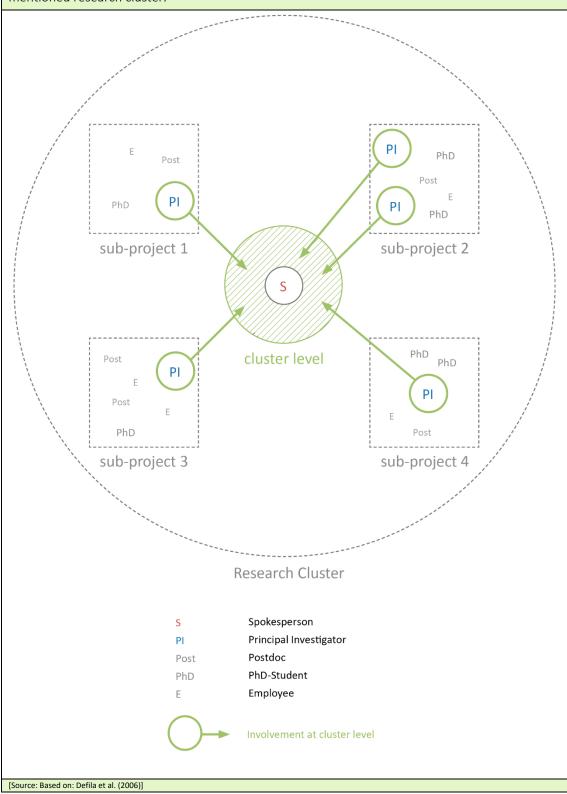
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### 1 Introduction

preloads		
laufond boandat	Ongoing collaboration	[1]
laufend_beendet	Terminated collaboration	[0]
rolle	Principal Investigator	[1]
rolle	Spokesperson	[0]

pid	ID of the Respondents
[Source: Own formulation]	

The reference point of the following survey is the cluster level of the research cluster. When answering the following questions, please think exclusively of the collaboration at the level of the cluster (green area), not of the collaboration within the sub-projects (grey area) of the abovementioned research cluster.



### 2 Initiation

	Was the research cluster initiated top-down (by third parties, e.g. by the management of a university or research institution) or bottom-up (on the initiative of the PIs involved)?				
	(1) Top-down	[1]			
ton down	2	[2]			
top_down	3	[3]			
	4	[4]			
	(5) Bottom-up	[5]			
	Neither	[-99]			
	Prefer not to indicate	[-999]			
[Source: Own form	nulation]				

Please estimate: What influence did the following characteristics have in the selection of the PIs (sub-project leader/applicant) of the research cluster? (1) Not at Prefer (5) all 3 Extremely not to 2 influential influential indicate Discipline-specific Krit\_wahl1 [1] [2] [3] [4] [5] [-999] competence Krit\_wahl2 Strategic competence [1] [2] [3] [4] [5] [-999] Reputation (e.g. through Krit\_wahl3 publication activity, acquired [5] [1] [2] [3] [4] [-999] third-party funding) Access to scientific infrastructure (e.g. large-Krit\_wahl4 scale facilities, data and [5] [-999] [1] [2] [3] [4] information infrastructures, laboratories) [-999] Krit\_wahl5 Personality [1] [2] [3] [4] [5] Previous personal or professional acquaintance Krit\_wahl6 [1] [2] [3] [4] [5] [-999] with the initiators of the cluster Special research activities or Krit\_wahl7 [1] [2] [3] [4] [5] [-999] research projects Networks within the inter(national) scientific [5] [-999] Krit wahl8 [1] [2] [3] [4] community [Source: Based on: Defila et al. (2006)]

### 3 Composition

[if laufend\_beendet ==1] Which of the following scientific disciplines are involved in the research cluster with at least one member?

[if laufend\_beendet ==0] Which of the following scientific disciplines were involved in the research cluster with at least one member?

		Yes	No			
wb1	Humanities and Social Sciences	[1]	[0]			
wb2	Life Sciences	[1]	[0]			
wb3	Natural Sciences	[1]	[0]			
wb4	Engineering Sciences	[1]	[0]			
wb5	Prefer not to indicate	[1]	[0]			
[Source: Own formulation]	[Source: Own formulation]					

[if laufend\_beendet ==  $1 \& wb_dfg1 == 1$ ] Which of the following subject areas of the Humanities and Social Sciences are involved in the research cluster with at least one member? Please assess the influence these review boards have in achieving the common research objectives at the cluster level.

[if laufend\_beendet == 0 & wb\_dfg1 == 1] Which of the following subject areas of the Humanities and Social Sciences were involved in the research cluster with at least one member? Please assess the influence these review boards had in achieving the common research objectives at the cluster level.

		(1) Not at				(5)	Not
		all	2	3	4	Extremely	involved
		influential				influential	ilivoiveu
fg_geist	Humanities	[1]	[2]	[3]	[4]	[5]	[-999]
fg_sowi	Social and Behavioural	[1]	[2]	[3]	[4]	[5]	[-999]
18_30W1	Sciences	[±]	[۷]	ردا	רַ־ן	[2]	[ 333]
[Source: Own formulation]							

[if laufend\_beendet == 1 & wb\_dfg2 == 1] Which of the following subject areas of the Life Sciences are involved in the research cluster with at least one member? Please assess the influence these review boards have in achieving the common research objectives at the cluster level.

[if laufend\_beendet == 0 & wb\_dfg2 == 1] Which of the following subject areas of the Life Sciences were involved in the research cluster with at least one member? Please assess the influence these review boards had in achieving the common research objectives at the cluster level.

		(1) Not at all influential	2	3	4	(5) Extremely influential	Not involved
fg_bio	Biology	[1]	[2]	[3]	[4]	[5]	[-999]
fg_medizin	Medicine	[1]	[2]	[3]	[4]	[5]	[-999]
fg_agrar	Agriculture, Forestry and Veterinary Medicine	[1]	[2]	[3]	[4]	[5]	[-999]
[Source: Own formulation]							

[if laufend\_beendet == 1 & wb\_dfg3 == 1] Which of the following subject areas of the Natural Sciences are involved in the research cluster with at least one member? Please assess the influence these review boards have in achieving the common research objectives at the cluster level.

[if laufend\_beendet == 0 & wb\_dfg3 == 1] Which of the following subject areas of the Natural Sciences were involved in the research cluster with at least one member? Please assess the influence these review boards had in achieving the common research objectives at the cluster level.

		(1) Not at all influenial	2	3	4	(5) Extre mely influe ntial	Not involved
fli-	Clara i atura	[4]	[2]	[2]	[4]		[000]
fg_chemie	Chemistry	[1]	[2]	[3]	[4]	[5]	[-999]
fg_physik	Physics	[1]	[2]	[3]	[4]	[5]	[-999]
fg_mathematik	Mathematics	[1]	[2]	[3]	[4]	[5]	[-999]
fg_geowi	Geosciences	[1]	[2]	[3]	[4]	[5]	[-999]
[Source: Own formulation]	[Source: Own formulation]						

[if laufend\_beendet == 1 & wb\_dfg3 == 1] Which of the following subject areas of the Engineering Sciences are involved in the research cluster with at least one member? Please assess the influence these review boards have in achieving the common research objectives at the cluster level.

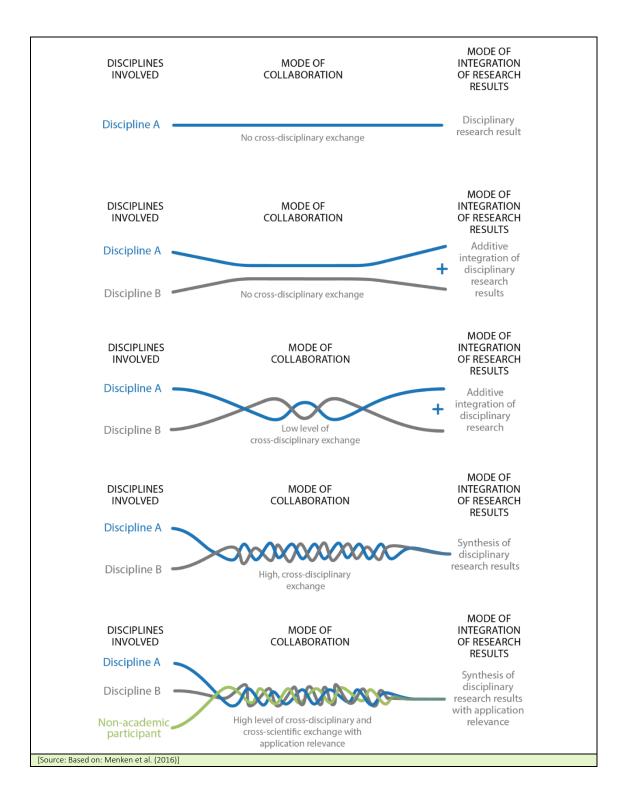
[if laufend\_beendet == 0 & wb\_dfg3 == 1] Which of the following subject areas of the Engineering Sciences were involved in the research cluster with at least one member? Please assess the influence these review boards had in achieving the common research objectives at the cluster level.

		(1) Not at all influential	2	3	4	(5) Extremely influential	Not involved
fg_maschpro	Mechanical and Industrial Engineering	[1]	[2]	[3]	[4]	[5]	[-999]
fg_waerme	Thermal Engineering/ Process Engineering	[1]	[2]	[3]	[4]	[5]	[-999]
fg_matwerk	Materials Science and Engineering	[1]	[2]	[3]	[4]	[5]	[-999]
fg_infsyselek	Computer Science, Systems and Electrical Engineering	[1]	[2]	[3]	[4]	[5]	[-999]
fg_bau	Construction Engineering and Architecture	[1]	[2]	[3]	[4]	[5]	[-999]

# 4 Mode

[Source: Own formula	tion]	•			
	Prefer not to indicate	[-999]			
	Trans-disciplinary collaboration	[5]			
	Inter-disciplinary collaboration	[4]			
	Cross-disciplinary collaboration	[3]			
	Multi-disciplinary collaboration	[2]			
modus1	Disciplinary collaboration	[1]			
	the research cluster before the start of the funding period?				
	Which form of collaboration described above was most likely to be env	Which form of collaboration described above was most likely to be envisaged for			
	review boards of the DFG classification system. Please make an assessn	nent:			
	collaboration. In our understanding Disciplines are equal to the previou	ısly rated			
	understanding of disciplinary, multi-, cross-, inter- and trans-disciplinary				
	Please take a moment to look at the overview below, which illustrates our				

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	[if laufend_beendet == 1] The form or intensity of collaboration may ch	ango or					
	develop differently than planned during a research collaboration. Whic	h of the					
	forms of collaboration listed below most suitable characterises the rese	earch					
	cluster from the beginning to this day?						
	[if laufend_beendet == 0] The form or intensity of collaboration may ch	ange or					
	develop differently than planned during a research collaboration. Which of the						
	forms of collaboration listed below most suitable characterised the research						
modus2	cluster from the beginning until the end of the funding period?						
	Disciplinary collaboration	[1]					
	Multi-disciplinary collaboration	[2]					
	Cross-disciplinary collaboration	[3]					
	Inter-disciplinary collaboration	[4]					
	Trans-disciplinary collaboration	[5]					
	Prefer not to indicate	[-999]					
[Source: Own formulat	ion]						

### 10

### 5 Cooperation within the Cluster

To what extent do the following statements apply to the collaboration at cluster level?							
		(1) Not at all	2	3	4	(5) Fully	Prefer not to indicate
disp_sicht1	[if laufend_beendet == 1] The cluster members are willing to see different points of view. [if laufend_beendet == 0] The cluster members were willing to see different points of view.	[1]	[2]	[3]	[4]	[5]	[-999]
disp_sicht2	[if laufend_beendet == 1] The cluster members can make their own viewpoint understandable to the other cluster members. [if laufend_beendet == 0] The cluster members made their own viewpoint understandable to the other cluster members.	[1]	[2]	[3]	[4]	[5]	[-999]
disp_sicht3	[if dispueber2 == 2   3   4   5 & laufend_beendet == 1] The cluster members strive to understand the mindset and methodological approaches of the other disciplines. [if dispueber2 == 2   3   4   5 & laufend_beendet == 0] The cluster members strived to understand the mindset and methodological approaches of the other disciplines.	[1]	[2]	[3]	[4]	[5]	[-999]
disp_sicht4	[if dispueber2 == 2   3   4   5 & laufend_beendet == 1] The discipline-specific mindset of the individual cluster members complicate collaboration at cluster level.  [if dispueber2 == 2   3   4   5 & laufend_beendet == 0] The discipline-specific mindset of the individual cluster members complicated collaboration at cluster level.	[1]	[2]	[3]	[4]	[5]	[-999]
disp_sicht5	[if dispueber2 == 2   3   4   5 & laufend_beendet == 1] The methods of the other disciplines remain unclear.	[1]	[2]	[3]	[4]	[5]	[-999]

[if dispueber2 == 2 | 3 | 4 | 5 & if
laufend\_beendet == 0] The methods of
the other disciplines remained unclear.

[Source: Based on: Steinheider, Bayerl, Menold & Bromme (2009)]

	the following points have on	the develop	ment	of co	mmc	n research q	uestions
and objectives at tl	ne cluster level?						
		(1) Not at				(5)	Prefer
		all	2	3	4	Extremely	not to
	influential				influential	indicate	
fragziel1	[if dispueber2 == 2   3   4   5] Equal consideration of all disciplines represented	[1]	[2]	[3]	[4]	[5]	[-999]
fragziel2	[if dispueber2 == 2   3   4   5] Alignment with a leading discipline	[1]	[2]	[3]	[4]	[5]	[-999]
fragziel3	[if dispueber2 == 2   3   4   5] Responsibility for identification of research questions and objectives is distributed among the represented disciplines and sub-projects	[1]	[2]	[3]	[4]	[5]	[-999]
fragziel4	Alignment of the research questions and objectives of the sub-projects with those of the cluster	[1]	[2]	[3]	[4]	[5]	[-999]
fragziel5  [Source: Based on: Defila et al.	Alignment of the research questions and objectives of the cluster with those of the sub-projects	[1]	[2]	[3]	[4]	[5]	[-999]

	_	_			it planned to in	tegrate the research results of				
	the sub-projects at the cluster level?  [if laufend_beendet == 0] To what extent were the research results of the sub-projects									
integ0	integrated at the cluster level?									
	(1) Not at all	2	3	4	(5) Fully	Prefer not to indicate				
	[1]	[2]	[3]	[4]	[5]	[-999]				
[Source: Ow	n formulation]									

[if laufend\_beendet == 1 & if integr1 > 1] What influence do the following requirements and procedures have on the integration of sub-projects' research results at the cluster level?

[if laufend\_beendet == 0 & if integr1 > 1] What influence did the following requirements and procedures have on the integration of sub-projects' research results at the cluster level?

(1) Not at
(5) Prefer all 2 3 4 Extremely influential influential

integ1	Conceptual coherence of the sub-projects	[1]	[2]	[3]	[4]	[5]	[-999]
integ2	Methodological coherence of the sub-projects	[1]	[2]	[3]	[4]	[5]	[-999]
integ3	Development of a shared theoretical framework	[1]	[2]	[3]	[4]	[5]	[-999]
integ4	Development of a shared terminology	[1]	[2]	[3]	[4]	[5]	[-999]
integ5	Orientation towards shared scientific products (e.g. publications, patents)	[1]	[2]	[3]	[4]	[5]	[-999]
integ6	Continuous exchange between sub-projects (e.g. regarding intermediate results)	[1]	[2]	[3]	[4]	[5]	[-999]
integ7	Specific financial resources for integration services	[1]	[2]	[3]	[4]	[5]	[-999]
integ8	Joint integration of the research results from the sub-projects	[1]	[2]	[3]	[4]	[5]	[-999]
integ9	Delegation of integration to an individual person/sub-group of the group	[1]	[2]	[3]	[4]	[5]	[-999]

[if laufend\_beendet == 1 & rolle == 0] In your personal opinion, to what extent do the following characteristics and abilities apply to the Spokesperson of the research cluster?

[if laufend\_beendet == 1 & rolle == 1] To what extent do the following characteristics and abilities apply to yourself in your role as the Spokesperson of the research cluster?

[if laufend\_beendet == 0 & rolle == 0] In your personal opinion, to what extent did the following characteristics and abilities apply to the Spokesperson of the research cluster?

[if laufend\_beendet == 0 & rolle == 1] To what extent did the following characteristics and abilities apply to yourself in your role as the Spokesperson of the research cluster?

apply to yourself in your role as the spokesperson of the research diaster.								
		(1) Not at all	2	3	4	(5) Fully	Prefer not to indicate	
leit1	High strategic competence	[1]	[2]	[3]	[4]	[5]	[-999]	
leit2	High discipline-related competence	[1]	[2]	[3]	[4]	[5]	[-999]	
leit3	Good moderation skills	[1]	[2]	[3]	[4]	[5]	[-999]	
leit4	Motivation of the cluster members to collaborate across sub-projects	[1]	[2]	[3]	[4]	[5]	[-999]	
leit5	Comprehensive and transparent communication	[1]	[2]	[3]	[4]	[5]	[-999]	
leit6	Supporting conflict resolution at the cluster level	[1]	[2]	[3]	[4]	[5]	[-999]	
leit7	No self-promotion at the expense of the cluster	[1]	[2]	[3]	[4]	[5]	[-999]	
leit8	Open to criticism, suggestions, and proposals	[1]	[2]	[3]	[4]	[5]	[-999]	
leit9	Ensuring an open and inclusive environment for communication at the cluster level	[1]	[2]	[3]	[4]	[5]	[-999]	
leit10	Good representation of the cluster	[1]	[2]	[3]	[4]	[5]	[-999]	
[Source: Defila et a	al. (2006)]							

[if laufend\_beendet == 1] What influence do the following decision-making procedures have on the resource allocation within the research cluster?

[if laufend\_beendet == 0] What influence did the following decision-making procedures have for the resource allocation within the research cluster?

			(5)	Prefer
3 4	2	4	Extremely	not to
			influential	indicate
[3] [4	[2	[4]	[5]	[-999]
[3] [4	[2	[4]	[5]	[-999]
[3] [4	[2	[4]	[5]	[-999]
[3] [4	[2	[4]	[5]	[-999]
[3] [4	[2	[4]	[5]	[-999]
[3] [4	[2	[4]	[5]	[-999]

	[if laufend	[if laufend_beendet == 1] How often do frictions occur when making decisions							
	about resource allocation at the cluster level?								
	[if laufend_beendet == 0] How often did frictions occur when making decisions								
ent ress knflkt	about resource allocation at the cluster level?								
ent_ress_kmikt	(1)	(2)	(3)	(4)	(5) Very	Prefer not to			
	Never	Rarely	Sometimes	Often	often	indicate			
	[1]	[2]	[3]	[4]	[5]	[-999]			
[Source: Own formulation]									

[if laufend\_beendet == 1] What influence do the following decision-making procedures have when it comes to content-related decisions at the cluster level?

[if laufend\_beendet == 0] What influence did the following decision-making procedures have when it came to content-related decisions at the cluster level?

		(1) Not at				(5)	Prefer
		all	2	3	4	Extremely	not to
		influential				influential	indicate
ent_inh1	[if laufend_beendet == 1] Spokesperson decides [if laufend_beendet == 0] Spokesperson decided	[1]	[2]	[3]	[4]	[5]	[-999]
ent_inh2	[if laufend_beendet == 1] A sub-group (e.g. a sub- project/committee) decides [if laufend_beendet == 0] A sub-group (e.g. a sub- project/committee) decided	[1]	[2]	[3]	[4]	[5]	[-999]
ent_inh3	[if laufend_beendet == 1] A person asserts their point of view [if laufend_beendet == 0] A person asserted their point of view	[1]	[2]	[3]	[4]	[5]	[-999]
ent_inh4	Decision by majority	[1]	[2]	[3]	[4]	[5]	[-999]
ent_inh5	Unanimous decision	[1]	[2]	[3]	[4]	[5]	[-999]
ent_inh6	[if laufend_beendet == 1] Unanimous decision, but in case of disagreement the Spokesperson decides [if laufend_beendet == 0] Unanimous decision, but in case of disagreement the Spokesperson decided	[1]	[2]	[3]	[4]	[5]	[-999]
[Source: Based on: Defila	' '						

	[if laufend_bee	[if laufend_beendet == 1] How often do frictions occur in decision-making								
	when it comes to content-related decisions at the cluster level?									
	[if laufend_beendet == 0] How often did frictions occur in decision-making									
	when it came to content-related decisions at the cluster level?									
ent_inh_knflkt	(1)	(2)	(2)	(4)	(5)	Prefer				
	(1)	(2)	(3)	(4)	Very	not to				
	Never	Rarely	Sometimes	Often	often	indicate				
	[1]	[2]	[3]	[4]	[5]	[-999]				
[Source: Own formulation]	•					•				

[if laufend\_beendet == 1] To what extent do the following statements apply to the collaboration at cluster level?

[if laufend\_beendet == 0] To what extent do the following statements apply to the collaboration at cluster level?

at cluster	rlevel?	1					
		(1) Not at all	2	3	4	(5) Fully	Prefer not to indica- te
arb1	[if laufend_beendet == 1] There is a sense of unity at cluster level. [if laufend_beendet == 0] There was a sense of unity at cluster level.	[1]	[2]	[3]	[4]	[5]	[-999]
arb2	[if laufend_beendet == 1] There is fair interaction between the cluster members at cluster level. [if laufend_beendet == 0] There was fair interaction between the cluster members at cluster level.	[1]	[2]	[3]	[4]	[5]	[-999]
arb3	[if laufend_beendet == 1] Regular feedback is obtained from the subprojects as to whether the set (sub-)goals of the cluster are being achieved.  [if laufend_beendet == 0] Regular feedback was obtained from the sub-projects as to whether the set (sub-)goals of the cluster were being achieved.	[1]	[2]	[3]	[4]	[5]	[-999]
arb4	[if laufend_beendet == 1] All members at cluster level feel responsible for achieving the common cluster goals. [if laufend_beendet == 0] All members at cluster level felt responsible for achieving the common cluster goals.	[1]	[2]	[3]	[4]	[5]	[-999]
arb5	[if laufend_beendet == 1] The requirements for the sub-projects regarding the common cluster objectives are clearly formulated. [if laufend_beendet == 0] The requirements for the sub-projects regarding the common cluster objectives were clearly formulated.	[1]	[2]	[3]	[4]	[5]	[-999]
arb6	[if laufend_beendet == 1] The cluster objectives communicated to the DFG are realistic and achievable.	[1]	[2]	[3]	[4]	[5]	[-999]

	[if laufend_beendet == 0] The cluster objectives communicated						
	to the DFG were realistic and						
	achievable.						
arb7	[if laufend_beendet == 1] The						
ai D7	cluster members know what tasks						
	they need to complete for the						
	achievement of the common						
	cluster objectives.						
	[if laufend beendet == 0] The	[1]	[2]	[3]	[4]	[5]	[-999]
	cluster members knew what tasks						
	they needed to complete for the						
	achievement of the common						
	cluster objectives.						
arb8	[if laufend_beendet == 1] The						
aino	cluster members are committed to						
	the common objectives of the						
	cluster.						
	[if laufend beendet == 0] The	[1]	[2]	[3]	3] [4]	[5]	[-999]
	cluster members were committed						
	to the common objectives of the						
	cluster.						
arb9	[if laufend_beendet == 1] The						
aibb	internal activities of the sub-						
	projects are coordinated to the						
	common objectives of the cluster.					[5]	
	[if laufend_beendet == 0] The	[1]	[2]	[3]	3] [4]		[-999]
	internal activities of the sub-						
	· · ·						
arh10	-						
aibio	-						
	· 1						
		[1]	[2]	[3]	[4]	[5]	[-999]
	· 1						
arh11	·						
aibtt							
	open and participative.						
	[if laufend_beendet == 0]	[1]	[2]	[3]	[4]	[5]	[-999]
	Communication at cluster level						
	Communication at cluster level was open and participative.						
arb10	projects were coordinated to the common objectives of the cluster.  [if laufend_beendet == 1] The cluster successfully transforms its skills into performance.  [if laufend_beendet == 0] The cluster successfully transformed its skills into performance.  [if laufend_beendet == 1]  Communication at cluster level is	[1]	[2]	[3]	[4]	[5]	[-999]

_	d_beendet == 0 1] To what extent do the tion at cluster level?	following s	tatem	nents	apply	to the	
		(1) Not at all	2	3	4	(5) Fully	Prefer not to indicate
prob1	[if laufend_beendet == 1] The cluster members reliably engage in the cluster. [if laufend_beendet == 0] The cluster members reliably engaged in the cluster.	[1]	[2]	[3]	[4]	[5]	[-999]
prob2	[if laufend_beendet == 1] The cluster members collaborate towards the achievement of the common research objectives, also beyond the boundaries of sub-projects. [if laufend_beendet == 0] The cluster members collaborated towards the achievement of the common research objectives, also beyond the boundaries of sub-projects.	[1]	[2]	[3]	[4]	[5]	[-999]
prob3	[if laufend_beendet == 1] The costs and benefits of cluster work are shared fairly between the members. [if laufend_beendet == 0] The costs and benefits of cluster work were shared fairly between the members.	[1]	[2]	[3]	[4]	[5]	[-999]
prob4	[if laufend_beendet == 1] The contributions made by the cluster members towards the achievement of the common research objectives are appropriately recognized at the cluster level.  [if laufend_beendet == 0] The contributions made by the cluster members towards the achievement of the common research objectives were appropriately recognized at the cluster level.	[1]	[2]	[3]	[4]	[5]	[-999]
prob5	[if laufend_beendet == 1] The communication at cluster level is comprehensive. [if laufend_beendet == 0] The communication at cluster level was comprehensive.	[1]	[2]	[3]	[4]	[5]	[-999]
prob6	[if laufend_beendet == 1] The cluster members participate actively in communication within the cluster.	[1]	[2]	[3]	[4]	[5]	[-999]

	T	ı					
	[if laufend_beendet == 0] The cluster						
	members participated actively in						
	communication within the cluster.						
prob7	[if laufend_beendet == 1] There is						
	sufficient agreement among cluster						
	members on the common objectives						
	at cluster level.	[1]	[2]	[2]	[4]	[5]	[000]
	[if laufend_beendet == 0] There was	[1]	[2]	[3]	[4]	[5]	[-999]
	sufficient agreement among cluster						
	members on the common objectives						
	at cluster level						
prob8	[if laufend_beendet == 1] The cluster						
	members are able to overcome						
	discipline-related differences.	5.43					
	[if laufend_beendet == 0] The cluster	[1]	[2]	[3]	[4]	[5]	[-999]
	members were able to overcome						
	discipline-related differences.						
prob9	[if laufend_beendet == 1] The						
F. 3.00	collaboration at cluster level is						
	characterized by mutual trust.						
	[if laufend_beendet == 0]	[1]	[2]	[3]	[4]	[5]	[-999]
	The collaboration at cluster level was						
	characterized by mutual trust.						
prob10	[if laufend_beendet == 1] The different						
probio	working styles of the cluster members						
	are compatible.						
	[if laufend_beendet == 0] The different	[1]	[2]	[3]	[4]	[5]	[-999]
	working styles of the cluster members						
	were compatible.						
prob11	[if laufend_beendet == 1] The						
	Spokesperson is primarily orientated						
	towards the interests of the cluster as						
	a whole.	[1]	[2]	[3]	[4]	[5]	[-999]
	[if laufend_beendet == 0] The						
	Spokesperson was primarily						
	orientated towards the interests of the						
	cluster as a whole.						
prob12	[if laufend_beendet == 1] The						
	Spokesperson grants the PIs a						
	sufficient degree of autonomy.	[1]	[2]	[3]	[4]	[5]	[-999]
	[if laufend_beendet == 0] The	' '	[-]	r - 1	r - 1		
	Spokesperson granted the PIs a						
	sufficient degree of autonomy.						
prob13	[if laufend_beendet == 1] The cluster						
	members do everything in their power						
	to reliably deliver their contributions						
	to the achievement of the common	[1]	[2]	[3]	[4]	[5]	[-999]
	cluster objectives.						
	[if laufend_beendet == 0] The cluster						
	members did everything in their power						

	to reliably deliver their contributions		
	to the achievement of the common		
	cluster objectives.		
prob14	[if laufend_beendet == 1] The cluster is		
	adequately prepared for the fact that		
	delays or unforeseen situations may		
	occur in the research process.		
	[if laufend_beendet == 0] The cluster	[1] [2] [3] [4] [5]	[-999]
	was adequately prepared for the fact		
	that delays or unforeseen situations		
	may have occured in the research		
	process.		
[Source: Own for	rmulation]	•	•

### 6 Success of the Collaboration

erfolg1_1  [if laufend_beendet == 1] The cluster achieves the objectives communicated to the DFG. [if laufend_beendet == 0] The cluster achieved the objectives communicated to the DFG.  [if laufend_beendet == 1] The cluster achieves important research results that were not foreseeable at the beginning of		Drofor
erfolg1_1  erfolg1_1  cluster achieves the objectives communicated to the DFG.  [if laufend_beendet == 0] The cluster achieved the objectives communicated to the DFG.  [if laufend_beendet == 1] The cluster achieves important research results that were not		Prefer not to indicate
cluster achieves important research results that were not	erfolg1_1	[-999]
erfolg1_2 the funding period.  [if laufend_beendet == 0] The cluster achieved important research results that were not foreseeable at the beginning of the funding period.  [1] [2] [3] [4]	erfolg1_2	[-999]

	Does the research cluster plan to apply for follow-up funding?	
	Yes	[1]
erfolg2	No, the maximum funding duration has been reached	[2]
	No, due to other reasons	[3
	Prefer not to indicate	[-999]
[Source: Own for	rmulation]	

	[if erfolg2 == 1] Ho	ow likely do	you think	it is that t	he cluster will d	btain follow-up			
	funding?								
erfolg3	(1) Extramaly				(5)				
erroigs	(1) Extremely unlikely	2	3	4	Extremely	Prefer not to indicate			
	uninkery				likely				
	[1]	[2]	[3]	[4]	[5]	[-999]			
[Source: Based	[Source: Based on: John (2019)]								

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## 7 Best Practice in Collaborative Research

In your opinion, which of the measures are suitable for increasing the probability that a research cluster will achieve the overall research objectives at cluster level communicated to the funding body?

body?		(1) Not at				/E\	Prefer
		all	2	3	4	(5) Very	not to
			2	3	4	,	
		suitable				suitable	indicate
best_pract1	When selecting the cluster members, preference should be given to persons with whom there has already been successful collaboration in the past.	[1]	[2]	[3]	[4]	[5]	[-999]
best_pract2	It should always be ensured, especially by the Spokesperson, that all cluster members feel valued.	[1]	[2]	[3]	[4]	[5]	[-999]
best_pract3	It is indispensable to have a leader in the cluster management who is able to mediate conflicts.	[1]	[2]	[3]	[4]	[5]	[-999]
best_pract4	The ability to work in a team should be an important criterion for the selection of cluster members.	[1]	[2]	[3]	[4]	[5]	[-999]
best_pract5	All members at cluster level should be taken into consideration in the development of common research questions and objectives.	[1]	[2]	[3]	[4]	[5]	[-999]
best_pract6	In order to strengthen cohesion at cluster level, a shared self-image should be formulated.	[1]	[2]	[3]	[4]	[5]	[-999]
best_pract_7	The management style should be as participative as possible and involve the cluster members in all important decisions.	[1]	[2]	[3]	[4]	[5]	[-999]

best_pract8	The Spokesperson and the cluster members should closely monitor whether the cluster is achieving its (sub-) objectives.	[1]	[2]	[3]	[4]	[5]	[-999]
best_pract9	The speaker should proactively address potential problems in the collaboration.	[1]	[2]	[3]	[4]	[5]	[-999]
best_pract10	The cluster members should be given as much freedom as possible to be able to conduct their research.	[1]	[2]	[3]	[4]	[5]	[-999]

### 8 Individual Interests

[if laufend\_beendet == 1] In the following we are interested in what you as a expect from your participation in the research cluster

[if laufend\_beendet == 0] In the following we are interested in what you expected as a from your participation in the research cluster.

		(1) Not at all	2	3	4	(5) Fully	Prefer not to indicate
erwart1_1	Access to third-party funds	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_2	Access to scientific infrastructure (e.g. large-scale facilities, data and information infrastructures, laboratories)	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_3	Enjoyment of working with scientists whom I personally like	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_4	Contribution to the shaping of new research fields and research questions	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_5	Collaboration with renowned scientists	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_6	Increase in the quantity of my publication output	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_7	Increase in the quality of my publication output	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_8	Improvement of the chances for further external funding	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_9	Networking in the (inter)national scientific community	[1]	[2]	[3]	[4]	[5]	[-999]
erwart1_10	Scientific contribution towards the solution of societal challenges	[1]	[2]	[3]	[4]	[5]	[-999]
[Source: Own formul	ation]						

[if pers\_erwart1\_1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 > 1 & if laufend\_beendet == 1:] How confident are you that these expectations will be met?

[if pers\_erwart1\_1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 > 1 & laufend\_beendet == 1:] To what extent were these expectations met?

		(1) Not confident at all	2	3	4	(5) Very confident	Prefer not to indicate
erwart2_1	[if pers_erwart1_1 > 1] Access to third-party funds	[1]	[2]	[3]	[4]	[5]	[-999]
erwart2_2	[if pers_erwart1_2 > 1] Access to infrastructure	[1]	[2]	[3]	[4]	[5]	[-999]

	(e.g. large-scale facilities,						
	data and information						
	infrastructures,						
	laboratories)						
	[if pers_erwart1_3 > 1]						
erwart2 3	Enjoyment of working	[1]	[2]	[2]	[4]	[5]	[-999]
erwartz_3	with scientists whom I	[1]	[۷]	[၁]	[4]	[ی]	[-333]
	personally like						
	[if pers_erwart1_4 > 1]						
	Contribution to the						
erwart2_4	shaping of new research	[1]	[2]	[3]	[4]	[5]	[-999]
	fields and research						
	questions						
	[if pers_erwart1_5 > 1]						
erwart2_5	Collaboration with	[1]	[2]	[3]	[4]	[5]	[-999]
_	renowned scientists			-	-	-	
	[if pers_erwart1_6 > 1]						
erwart2_6	Increase in the quantity	[1]	[2]	[3]	[4]	[5]	[-999]
_	of my publication output						
	[if pers_erwart1_7 > 1]						
erwart2_7	Increase in the quality of	[1]	[2]	[3]	[4]	[5]	[-999]
_	my publication output						
	[if pers_erwart1_8 > 1]						
	Improvement of the						
erwart2_8	chances for further	[1]	[2]	[3]	[4]	[5]	[-999]
	external funding						
	[if pers_erwart1_9 > 1]						
	Networking in the						
erwart2_9	(inter)national scientific	[1]	[2]	[3]	[4]	[5]	[-999]
	community						
	[if pers_erwart1_10 > 1]						
	Scientific contribution						
erwart2_10	towards the solution of	[1]	[2]	[3]	[4]	[5]	[-999]
	societal challenges						
[Source: Own formulation							

# 9 Membership in the Collaboration

	[if laufend_beendet == 1] Have you been a member of the research cluster	er since
	its start?	
	[if laufend_beendet == 0] Have you been a member of the research cluster	er for its
mitgl_fv	entire period?	
	Yes	[1]
	No	[2]
	Prefer not to indicate	[-999]
[Source: Own form	ulation]	

[if laufend_beendet == 1 & mitgl_zeit == 0] How long have you been a member of the research		
cluster?		
[if laufend_beende t == 0 & mitgl_zeit = 0] How long were you a member of the research cluster?		
mitglied	0 to 4 Years	[1]
	5 to 9 Years	[2]
	10 to 14 Years	[3]
[Source: Own formulation]		

### 10 Sociodemography

alter	How old are you?	
	< 35 Years	[1]
	35 to 44 Years	[2]
	45 to 54 Years	[3]
	55 to 64 Years	[4]
	>65 Years	[5]
[Source: Own formulation]		

	Please indicate your gender.	
geschlecht	Male	[1]
	Female	[2]
[Source: Own formulation]		

	Please indicate your current employment position.	
b_position	Professor	[1]
	Academic council	[2]
	Research assistant	[3]
	Currently no employment in the academic-scientific field (incl. private	[4]
	lecturers without employment)	
	Other position in the academic-scientific field	[5]
	Prefer not to indicate	[-999]
[Source: Neufeld & Johann (2016)]		

	[if beschaeft_position_1 == 1]: Please indicate the year of your initial appointment.	al
	0 to 9 Years	[1]
berufung	10 to 19 Years	[2]
	20 to 29 Years	[3]
	30 to 39 Years	[4]
	>40 Years	[5]
[Source: Neufeld & Johann (2016)]		

	Please indicate the year of your (first) doctorate.	
	0 to 9 Years	[1]
nromotion	10 to 19 Years	[2]
promotion	20 to 29 Years	[3]
	30 to 39 Years	[4]
	>40 Years	[5]
[Source: Neufeld & Johann (2016)]		

You have now reached the end of the survey. Thank you very much for your participation! Finally, you have the opportunity to leave us comments and suggestions on the questionnaire.

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