

# Business Report

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## 2010/2011

Alfred Wegener Institute for  
Polar and Marine Research  
in the Helmholtz Association

## Facts and Figures

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*Dr. H. Wolke*

*Prof. Dr. K. Lochte*

## INTRODUCTION

### The Alfred Wegener Institute in facts and figures

The Alfred Wegener Institute for Polar and Marine Research in the Helmholtz Association has conducted research in both Polar Regions with an interdisciplinary and long-term approach for 30 years now and engages in comparative coastal and North Sea research at the highest level. With their research results, the scientists provide a comprehensive picture of how the Arctic, the Antarctic and the neighbouring oceans influence the conditions of living on the Earth now and in the future based on observations of environmental parameters over long periods of time and understanding the processes of the global system and its subsystems.

The Polar Regions assume a key role in the global climate system, particularly with respect to anthropogenic changes. The increasing economic and political interests in the Arctic are making it ever more important to offer decision-makers forecasts for shorter periods alongside reliable projections over relatively long climate time scales. Scientists are currently developing the research programme for the third period of programme-oriented funding, taking up urgent issues and new topics. The focus is placed on changes in the Arctic and Antarctic as well as on the coasts and ocean shelves.

The Business Report provides the underlying facts and figures of the Alfred Wegener Institute for 2010/2011.

*Prof. Dr. Karin Lochte*  
Director

*Dr. Heike Wolke*  
Administrative Director



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Max Planck Institute for Meteorology  
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Frauenbeauftragte des AWI  
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Lemke, Prof. Dr. Peter  
Lochte, Prof. Dr. Karin  
Nixdorf, Dr. Uwe  
Pauls, Margarete  
Personalrat des AWI  
Reise, Prof. Dr. Karsten  
Röchert, Ralf  
Sauter, Dr. Eberhard  
Wolke, Dr. Heike



## ORGANISATION

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Hamburg

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Bremen Parliament  
Parliamentary party Bündnis 90/Die Grünen, Bremen

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Jacobs University Bremen

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Greifswald  
Institute for Geological Sciences

*\*) The representatives of the BMELV and of the BMWi rotate every two years (BMELV represented since 01.01.2011)  
Status: 31.12.2012*



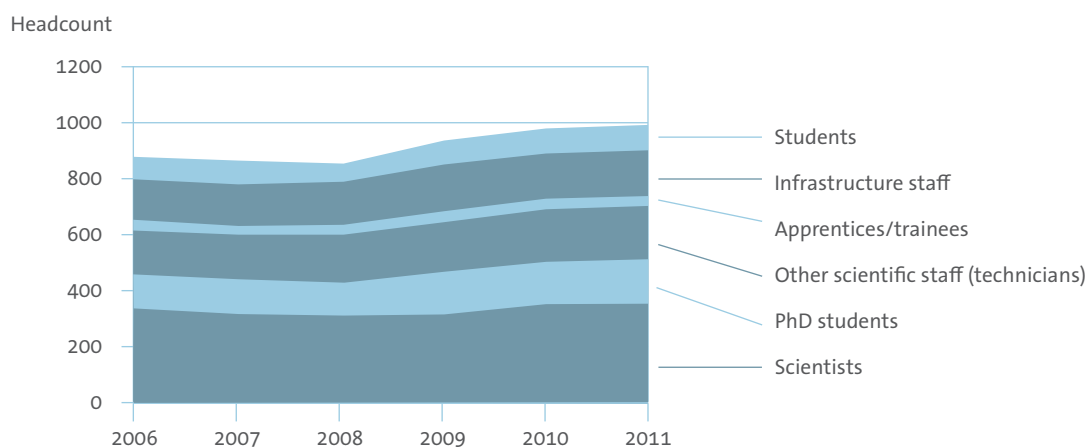
## ORGANISATION CHART





## BUSINESS FIGURES

### Personnel



	2006	2007	2008	2009	2010	2011
Scientists	336	316	311	314	348	351
PhD students	124	123	114	150	152	157
Other scientific staff (technicians)	153	158	170	178	189	196
Apprentices/trainees	36	33	37	39	36	35
Infrastructure staff	152	151	157	165	165	168
Students	77	85	68	93	89	82

headcount

A total of 979 employees worked at the Alfred Wegener Institute in 2010. There were 989 employees in 2011. The total number of people has therefore risen steadily compared to the previous reporting period from 778 in 2008 and 876 in 2009. In the period under review 79 per cent of staff worked in Bremerhaven, 11 per cent in Potsdam, 7 per cent on Helgoland and 3 per cent on Sylt.





## Personnel

Personnel in full time equivalents

	on 31.12.2010	on 31.12.2011
<b>AWI in total</b>		
Personnel with open-end contracts	437.4	440.6
Personnel with fixed-term contracts	503.6	489.2
<b>Total</b>	<b>941</b>	<b>929.8</b>
of which financed by third party funds	296	291.8
of which students	89	82
of which apprentices/trainees	36	45
of which (according to locations):		
<b>Bremerhaven</b>	79%	79%
Personnel with open-end contracts	338.8	340.5
Personnel with fixed-term contracts	407	395.3
<b>Total</b>	<b>745.8</b>	<b>735.8</b>
of which financed by third party funds	240.5	239
of which students	69	68
of which apprentices/trainees	31	40
<b>Potsdam</b>	11%	11%
Personnel with open-end contracts	39.7	40.5
Personnel with fixed-term contracts	58.6	58.3
<b>Total</b>	<b>98.3</b>	<b>98.8</b>
of which financed by third party funds	40	37.8
of which students	14	10
of which apprentices/trainees	3	3
<b>Helgoland</b>	7%	7%
Personnel with open-end contracts	40.1	42.3
Personnel with fixed-term contracts	27	25.8
<b>Total</b>	<b>67.1</b>	<b>68.1</b>
of which financed by third party funds	10.5	9
of which students	4	3
of which apprentices/trainees	2	2
<b>Sylt</b>	3%	3%
Personnel with open-end contracts	18.8	17.3
Personnel with fixed-term contracts	11	9.8
<b>Total</b>	<b>29.8</b>	<b>27.1</b>
of which financed by third party funds	5	6
of which students	2	1
of which apprentices/trainees	0	0

## Personnel development measures

The area of personnel development was initially taken care of by the Board of Governors of the Alfred Wegener Institute as from 2008. A separate position has existed for this task since January 2011.

One focus was and is the creation and further development of the comprehensive internal further training programme in line with requirements which was launched in 2010. Participation was particularly high in the first year. All in all 241 employees attended the qualification measures. This was associated with a leave of absence of around 4,800 hours and costs of some 66,700 euro. In 2011, 195 people took advantage of the programme, corresponding to a leave of absence of around 4,000 hours and costs of some 45,200 euro.

Personnel Development is responsible for numerous other areas. Since October 2009 there have been two welcome events per year and a new welcome brochure helps with the integration of new employees. International colleagues are supported by Personnel Development.



## BUSINESS FIGURES

### Equal opportunities

The share assumed by women amongst the scientists with open-end contracts remained constant at 24 per cent in 2010 and in 2011. Fifty-five percent of the junior scientist posts and other scientific positions financed by the Alfred Wegener Institute were occupied by women in 2011 and 57 per cent in 2010. Of the third party funded scientist posts, the share occupied by women rose in 2011 to 50 per cent compared to 46 per cent in 2010. The quota dropped amongst the PhD students from 59 per cent in 2010 to 55 per cent in 2011.

### Combining work and family

The Alfred Wegener Institute was awarded the “Work and Family” audit certificate in 2005 for its family-friendly personnel policy. For over ten years the Institute has taken different measures designed to facilitate a work-life balance such as

- the Institute’s holiday programme (around 350 participant days per year)
- the Institute’s crèche (since August 2011 with a total of 20 places)
- joint events with cooperation partners in Bremerhaven
- child care services during conferences and congresses
- assistance for employees with relatives in need of nursing
- special assistance in family-relevant issues
- individual assistance for new employees.

Employees from all areas use the measures to combine work and family at all levels. Through the active participation of employees the principle of work/family compatibility is lived at the Alfred Wegener Institute.



## Technology transfer

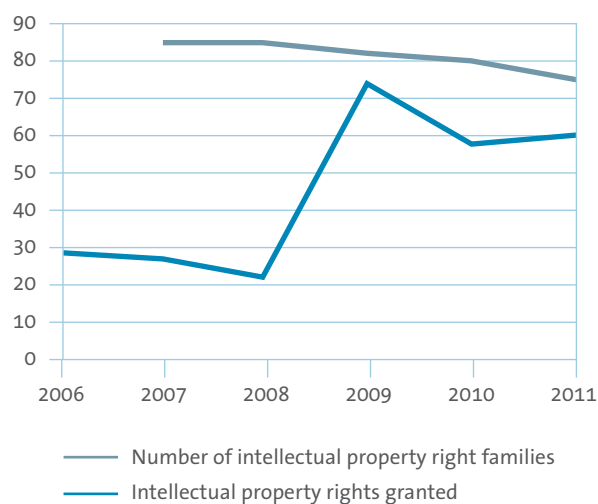
In the two years under review of 2010 and 2011, 58 and 60 individual intellectual property rights respectively, including seven priority-establishing patents (new technologies) were granted. 55 individual intellectual property rights were relinquished in the same period to streamline the patent portfolio. At the end of 2011 the Alfred Wegener Institute had 74 intellectual property right families with a total of 312 individual country intellectual property rights (predominantly patents).

The revenue from the licences amounted to 1,460,000 euro in 2010 and 916,000 euro in 2011. In the two years under review, revenue of some 4.7 million euro was additionally derived from R&D cooperations and contract research.

In 2010 the two companies datadiving GbR (scientific diving services primarily in the area of offshore windpark development) and Vivace GmbH (sustainable caviar production) were spun off from the Alfred Wegener Institute.

As part of a BMBF project started in 2011 the exploitation structures at the Alfred Wegener Institute are to be further developed supported by an external exploitation company. In this context technology screening in the different areas of the Alfred Wegener Institute is to be used to identify inventions and innovations.

AWI property rights





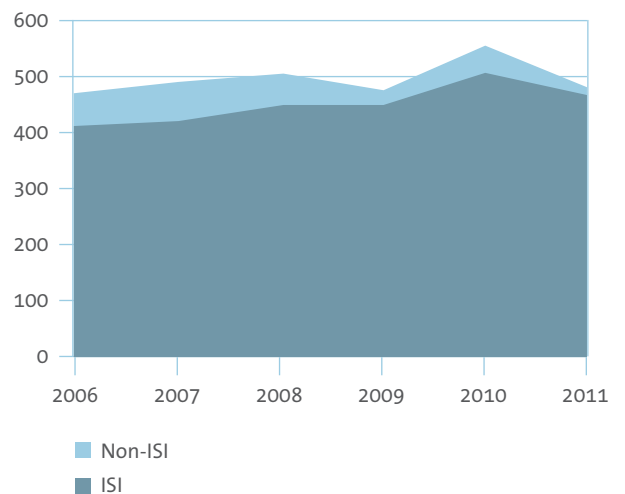
## BUSINESS FIGURES

### Scientific publications

Over the last six years the number of ISI-noted AWI publications has continuously risen from 415 in 2006 to 462 in 2011 with a maximum of 513 in 2010. Articles from referenced journals not listed in the ISI Master Journal List play an increasingly smaller role.

The official archiving database for publications and lectures of the Alfred Wegener Institute for Polar and Marine Research is ePIC (electronic Publication Information Centre): <http://epic.awi.de/>

### Scientific publications





## Financial plan

	1. ACTUAL on 31.12.2010				2. BUDGET 2011*			
	Bremerhaven 000's €	Sylt/Helgoland 000's €	Potsdam 000's €	Total 000's €	Bremerhaven 000's €	Sylt/Helgoland 000's €	Potsdam 000's €	Total 000's €
<b>Operations</b>								
Personnel	26,438	3,863	2,577	32,878	26,452	4,496	2,960	33,908
Materials	45,455	5,568	1,592	52,615	43,403	5,244	1,571	50,218
<b>Investments</b>								
Current investments	11,703	2,775	632	15,110	11,390	710	757	12,857
Investments > € 2,5 million	4,667	1,233		5,900	7,245	1,100		8,345
<b>Revenue</b>								
Proceeds and income	4,535	1,418	223	6,176	560	307		867
<b>Total</b>	<b>88,263</b>	<b>13,439</b>	<b>4,801</b>	<b>106,503</b>	<b>88,490</b>	<b>11,550</b>	<b>5,288</b>	<b>105,328</b>
Third party funds	19,370	599	1,323	21,292	18,556	930	1,089	20,575

\* The final figures will be available at the end of June 2012.

## Finances

In 2010, 979 employees worked for the Alfred Wegener Institute. The total number of staff has therefore risen steadily since 2008. Compared to the ACTUAL status in 2008, the funding for personnel increased in 2010 in accordance with the rise in the number of staff. The increase in current investments is attributable amongst other things to the approval of funds from the Economic Recovery Package II in 2009. The rise in revenue in 2010 compared to 2008 is explained by the additional income from contract research and a rise in the licences and know-how agreements.



## NATIONAL AND INTERNATIONAL COOPERATION

### Collaborations

As an internationally recognised institute for polar and marine research, the Alfred Wegener Institute collaborates with many national, European and international partners. Cooperation is not only necessary due to the complexity of the natural systems and processes, but is also actively conducted to create synergy effects and advance research topics and innovations.

### National cooperation

Within the Helmholtz Association, the Alfred Wegener Institute maintains close cooperation with the centres working in the research field of Earth and Environment. Scientists from the Helmholtz Centre in Geesthacht and the Alfred Wegener Institute work in the joint research programme PACES (Polar Regions and Coasts in a Changing Earth System). This important research topic is advanced across programme and centres by the Alfred Wegener Institute working together with the German GeoResearch Centre Potsdam, the Jülich Research Centre, the Karlsruhe Institute for Technology, the Helmholtz Centre for Environmental Research, the Helmholtz Centre in Geesthacht and the Helmholtz Centre in Munich in the Helmholtz Association for regional climate change (REKLIM). Cross-research cooperation in the area of global observation with the German Centre for Aviation and Space Travel deserves particular mention here.

The Alfred Wegener Institute currently has 40 contractually regulated scientific cooperations with German universities, non-university research institutions and subordinated federal authorities. All professorships at the Alfred Wegener Institute are set up via mutual appointments with the Universities of Bremen, the Jacobs University of Bremen and the University of Bremerhaven as well as the Universities of Potsdam, Kiel, Oldenburg and Göttingen. As part of the long and successful cooperation with the University of Bremen, a competence platform for the



strategic further development of scientific and technical cooperation was established with the AMAR Alliance in 2010. The central partner is the Research Centre for Marine Environmental Sciences at the University of Bremen (MARUM). Within the AMAR Alliance joint projects are currently planned and conducted on sea and climate research in the North Atlantic / Arctic Ocean, marine underwater technology and data information systems for marine research. Further subject and research areas can be initiated as required.

### International cooperation

The Alfred Wegener Institute is a strong partner in international networks and collaborates with numerous European and international research institutes. In 2010/11 eight contractually regulated collaborations were entered into or extended with foreign partners, five of which with Russian institutes and universities. On 15 February 2011



the MoU (Memorandum of Understanding) was officially extended with the Murmansk Marine Biological Institute (MMBI) during the 20 year anniversary of the scientific workshop "Oceanographic Research in the Arctic" with a joint conference in Murmansk. The scientific contributions to this conference were then published in a joint volume of reports on polar research. On 12 May 2011 a cooperation agreement was also concluded between the Universities of Yakutsk (Republic of Sakha, Russia) and Kazan (Russia) and the AWI on scientific cooperation in the area of polar and climate research. Both universities belong to the small group of Russian federal universities which counts a total of only seven Russian universities. The Alfred Wegener Institute is also a partner in the „Russian-German Exhibition on Marine and Polar Research“ which was officially opened in St. Petersburg on 14 October 2011 and represents an important contribution to the Russian-German year of science 2011/2012. This exhibition will be shown in Russia and German and is to be seen in Berlin, Munich and Bonn amongst others.

At the level of European cooperation, the official foundation of the European Climate Research Alliance (ECRA) on 4 October 2011 in the European Parliament in Brussels deserves special mention. ECRA is an alliance of leading European research institutions in the area of climate research. The objective of ECRA is to bring together, extend and optimise European competencies in climate research by jointly using existing national research capacities and infrastructures. This is to be achieved through the joint realisation of pan-European programmes.

The obtaining of just under ten million euros for the large scale European project PAGE21 (Changing Permafrost in the Arctic and its Global Effects in the 21st Century) is to be seen as a great success for periglacial research at the Research Unit Potsdam of the Alfred Wegener Institute. Leading scientists from eleven European countries and Russia under the leadership of the AWI work in this EU project on questions concerning changes in the permafrost and their effects on the Arctic coasts.



## FIELD, FLIGHT AND SHIP EXPEDITIONS

The Alfred Wegener Institute provides ships, stations and aircraft throughout the world for German polar and marine research. Information on the expeditions supported is provided by the following table. Outstanding highlights in the period under review were the completion of the

pilot phase at the Antarctic Neumayer Station III, the commissioning of the research aircraft Polar 6, the promotion of the project for the replacement of the research and supply vessel Polarstern and the project launch for the replacement of the coastal research catamaran Mya.

Research vessels	Expeditions		Participants Germany		Participants Abroad		Days of deployment		Harbour/docks	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
FS Polarstern	8	7	259	214	76	84	320	308	45	57
FS Heincke	31	26	363	255	37	23	247	281	118	84

Stations	Projects		Participants Germany		Participants Abroad		Days of deployment		
	2010	2011	2010	2011	2010	2011	2010	2011	
<b>Arctic</b>									
AWIPEV Research Base Arctic (permanently manned)	36	38	76	72	47	38	365	365	
Samoylov Station (summer station)			10	11	22	20	94	71	
<b>Antarctic (stations)</b>									
Neumayer Station III (permanently manned)	11	12	35	38	6	1	365	365	
Kohnen Station (summer station)	2	2	12	11	0	1	17	26	
Dallmann Laboratory at the former Jubany Station (Argentina) (summer operations)	24	19	18	13	20	19	212	151	





Field expeditions	Projects		Participants Germany		Participants Abroad		Days of deployment	
	2010	2011	2010	2011	2010	2011	2010	2011
<b>Arctic</b>								
Russland (Nordostsibirien), Kytalyk		1		4		8		45
Russland, El'Gygytgyn		1		3		4		30
Russland, Lena-Delta	1	1	35	37	19	14	94	71
Russland, Taymyr		1		4		3		35
Russland, Westsibirien, Yamal		1		2		10		40
Kanada, Yukon Coast	1	1	4	7	6	6	30	35
<b>Antarctic</b>	3	2	5	5	0	0	260	244
<b>Other regions</b>								
China, Tibet plateau		1		18		14		30
China, Qinhai		1		3		1		20

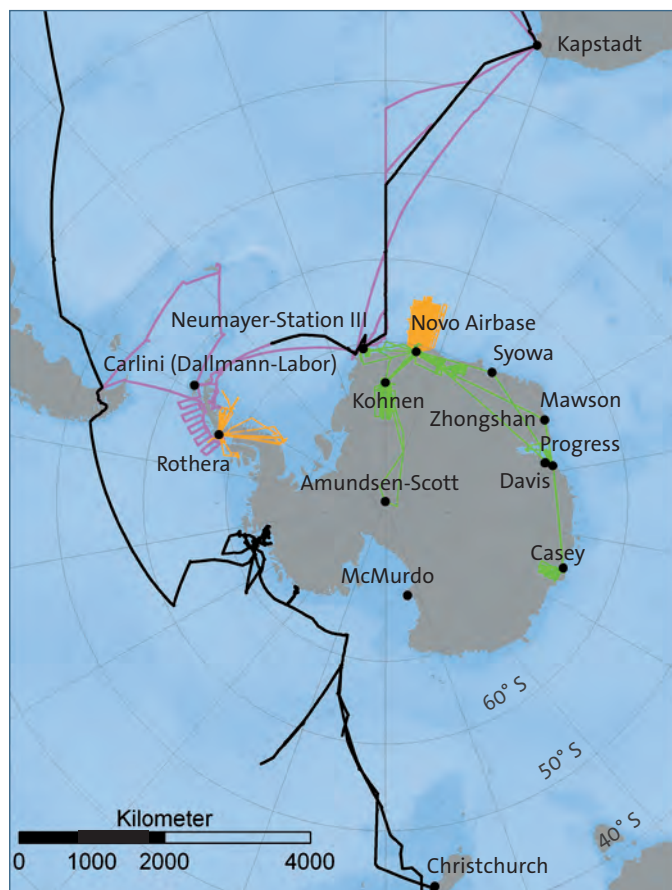
Aircraft	Projects		Flight hours Scientific		Flight hours Logistics incl. ferry		Total hours	
	2010	2011	2010	2011	2010	2011	2010	2011
<b>Arctic</b>								
Polar 5	4	4	244	297	71	52	315	349
Polar 6	0	0	0	0	0	0	0	0
<b>Antarctic</b>								
Polar 5	6	6	215.2	198.5	78	139	293.2	337.5
Polar 6	0	2	0	83	0	76	0	159

Equipment (provision of polar clothing, field equipment)	Projects		Participants Germany		Participants Abroad	
	2010	2011	2010	2011	2010	2011
Ship expeditions	39	33	622	469	113	107
Station operations	73	71	151	145	95	79
Flight missions	10	12	6	14	0	0
Field missions	5	10	44	83	25	60

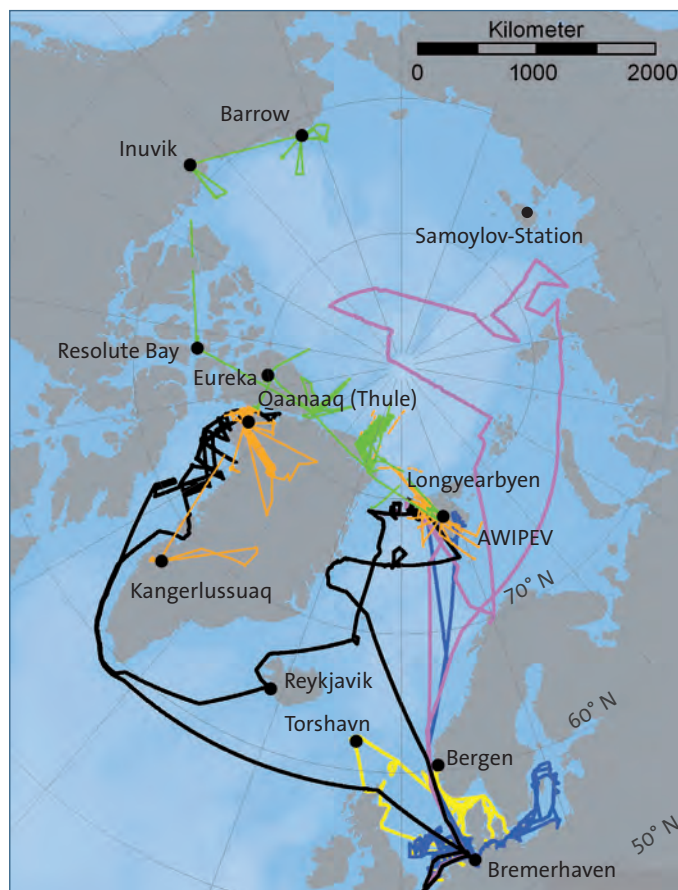


## ROUTES AND FLIGHT MISSIONS

### Scientific and logistic routes and flight missions



Antarctic



Arctic

Graphics: Christine Wesche

- Flight missions Polar 5 2010
  - Flight missions Polar 5 and Polar 6 2011
- Research and supply vessel Polarstern 2010
  - Research and supply vessel Polarstern 2011
- Research vessel Heincke 2010
  - Research vessel Heincke 2011



### **Imprint**

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Polar and Marine Research  
in the Helmholtz Association

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