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# GLOBAL APPROACH BY MODULAR EXPERIMENTS

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**A WORLDWIDE PROGRAMME  
STUDYING GLOBAL CHANGE**

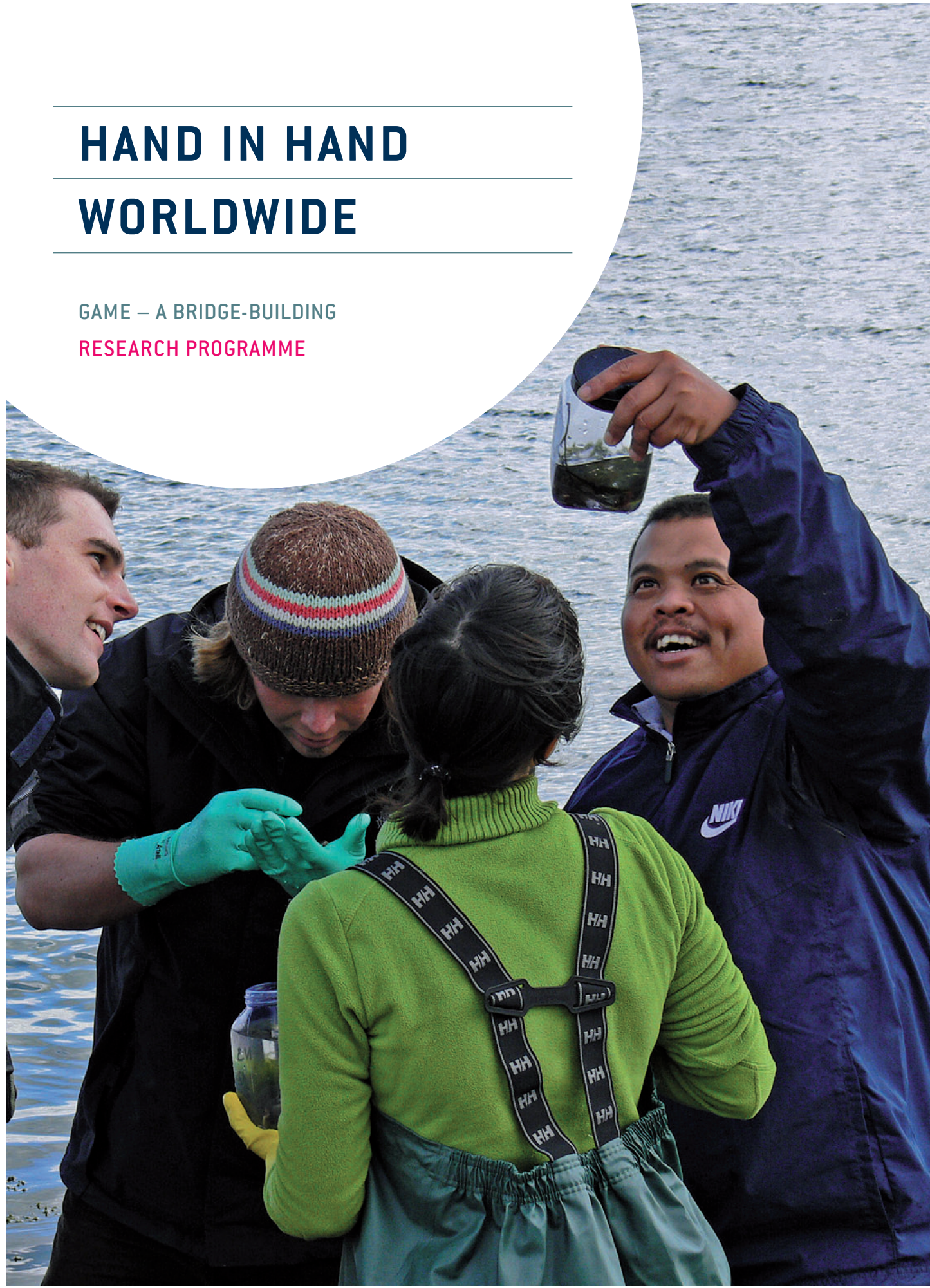
GAME supports and links  
young marine scientists.





# HAND IN HAND WORLDWIDE

GAME – A BRIDGE-BUILDING  
RESEARCH PROGRAMME



## ? WHAT IS GAME?

GEOMAR | Helmholtz Centre for Ocean Research Kiel is one of the world's leading institutes in the field of marine science. It aims to study the oceans in their entirety and for this purpose the institute combines research in physics, chemistry, biology and geology under one roof. In 2002, Professor Martin Wahl initiated a special programme in the field of marine biology, establishing a new and innovative scientific approach:

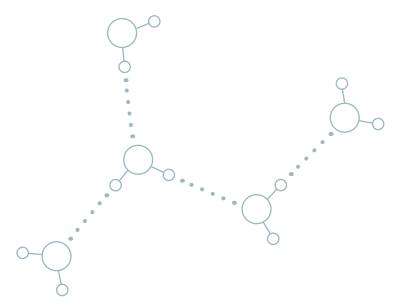
**GAME – a programme for the worldwide implementation of identical experiments across geographical and climatic boundaries.**

» GAME stands for  
**GLOBAL  
APPROACH BY  
MODULAR  
EXPERIMENTS**

GAME-research projects study the effects of global change on habitats in coastal waters.

GAME is in an international training programme that combines applied research with training for young scientists. Every year, parallel research projects on current ecological issues are organised at different locations around the world. The research is carried out by students working in bi-national pairs and supervised by scientists from GAME's partner institutes. The unique GAME projects enable generalizable insights into urgent ecological issues. At the same time GAME links GEOMAR with numerous partner institutes worldwide and creates a global network for the sustainable exchange of scientific knowledge. GAME currently cooperates with 33 marine research institutes on five continents.

This network is growing.

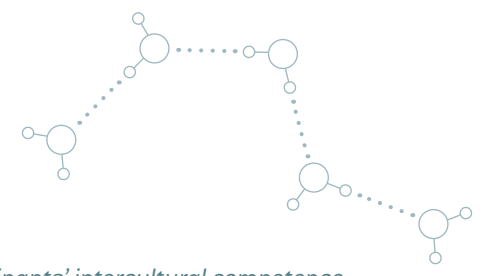


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*The GAME programme promotes its participants' intercultural competence, making an important contribution to open, unprejudiced and interested engagement with other cultures in order to learn, work and research together*

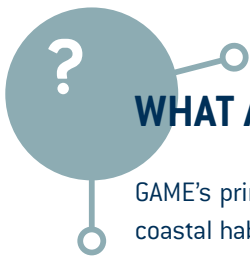
Kerstin Bockhorn, GAME participant from Germany, now employed as an Environmental Scientist with the municipal Office for Nature and Resource Conservation in Hamburg





# NETWORKS FOR THE OCEANS

A PROGRAMME FOR THE FUTURE THAT NEEDS **PARTNERS**



## WHAT ARE THE AIMS OF GAME?

GAME's primary aim is to study the effects of global change on the earth's coastal habitats. Furthermore, GAME works to develop and expand the multinational transfer of knowledge, in particular between industrialized and newly industrializing countries, as well as creating lasting and sustainable networks for marine research. At the same time GAME supports young scientists and in intensive teaching modules trains them in scientific core skills, such as the communication of research findings in the form of scientific articles and talks.

GAME needs support for this work.

We are looking for businesses, individuals and foundations willing to become involved as partners or sponsors for future projects:

- You would like to support sustainable marine research?
- You would like to support young scientists?
- You would like to be part of a cultural and scientific competence network?

GAME provides opportunities – for its partners and sponsors:

### Your benefits as a partner or sponsor

- > Personal, exclusive invitations to GAME events
- > Personal contact and opportunities for communication with scientists and institutions
- > You can experience research “close up”
- > Your name will be mentioned in GAME publicity
- > You will be linked with an international research network

## WAYS IN WHICH YOU CAN SUPPORT US

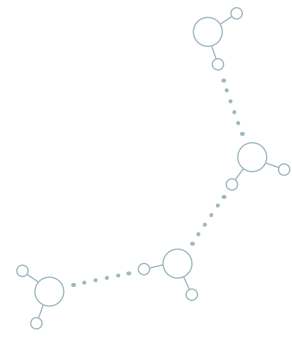
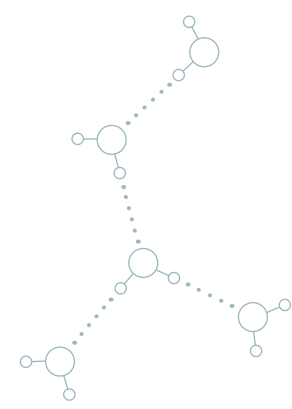
### With a partnership

you can enable GAME to continue its successful international cooperation and to pursue and develop excellent teaching within the programme (teaching, student supervision, network expansion, publicity). You decide the amount of your contribution to support GAME.

### With a sponsorship

you give an individual student the opportunity to participate in an exchange as part of the GAME project. With a fixed sum you can fund a scholarship for one student (travel costs, equipment, books, media).

We are happy to send detailed information on request.





# GLOBAL THINKING MODULAR RESEARCH

IN A WORLDWIDE **NETWORK** FOR  
SCIENTIFIC EXCHANGE



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## HOW DOES GAME WORK?

Currently 18 scholarships are awarded annually, divided equally between German and foreign students who are writing their final thesis in the framework of a research project

- > Every GAME project begins in Kiel.
- > Every year in March all participants meet here and develop the methodological approach for their new research project in a month-long preparatory course, together with scientists from GEOMAR.
- > The participants form bi-national teams consisting of one German and one local student and perform the experiments at one of our partner institutes from April on.
- > At the beginning of September the German students return to Kiel, where they evaluate their data and write their final theses with the support of GEOMAR scientists.
- > Subsequently the foreign students return to participate in the global evaluation of the experimental results.
- > This is followed by a phase with intensive training modules on delivering scientific lectures and preparing publications.
- > In the last phase of each project the participants present their findings in the form of lectures at universities and marine science institutes in northern Germany, and prepare articles for scientific journals.



*GAME combines the implementation of an innovative, global research approach with the education of promising young scientists and in this way provides a model for the ideal combination of scientific research and broadly defined academic education.*

Dr. Bernhard Lorentz  
President of Stiftung Mercator



# COMPETENCE THROUGH COOPERATION

GAME SUPPORTS CAREERS – AND HELPS TO SECURE THE FUTURE OF COASTAL REGIONS



## ! GAME'S STRENGTHS

- > unique scientific approach
- > high relevance due to generalizable research results
- > high quality due to small numbers of participants
- > GAME is a global tool that can serve as a model for other disciplines
- > high level of attractiveness through its utilization of the competence and logistics of GEOMAR
- > networking of participants and partner institutes
- > global transfer of knowledge

### GAME promotes

- > understanding of global issues and research approaches
- > intercultural competence and teamwork skills
- > exchange of knowledge, cosmopolitanism and tolerance
- > qualification for scientific work at an international level

### GAME offers

- > an excellent education with intensive and individual supervision
- > efficient training for optimum career prospects
- > research experience abroad before starting a doctoral project
- > training in practical work at difficult research locations

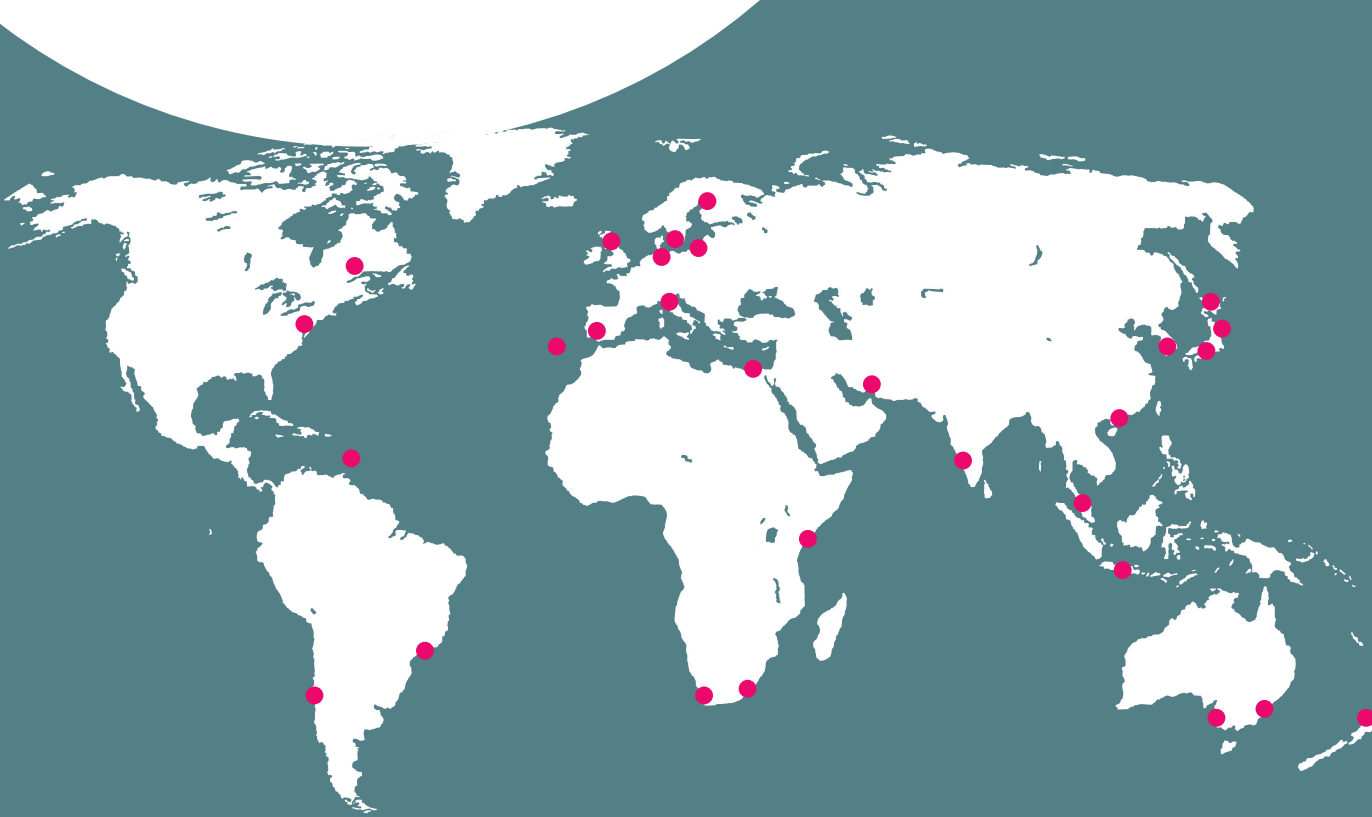


*There is no other way to say it: GAME has changed my life. This global project gave me a rigorous formal training of quantitative analysis of spatial and temporal dynamics in benthic marine communities. I am currently a postdoctoral fellow in Edgewater, Maryland, USA, working with the effects of pollution and latitude on native and invasive species. GAME showed me the right way and gave me the tools I needed for the path I chose.*

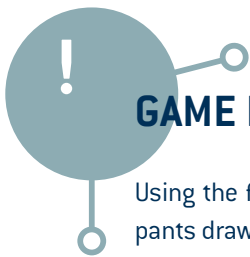
Dr. João Canning-Clode, GAME-participant from Madeira / Portugal  
currently Smithsonian Research Fellow

# THE WORLD POSES QUESTIONS

## THE GAME NETWORK IN FIGURES



Our network currently includes 33 research institutions in 24 countries. We are represented on five continents and thus in all of the large marine areas. So far 129 students have been supervised by GAME. The German participants came from 25 different universities throughout the country. To date, 36 publications based on GAME projects have appeared in international peer-reviewed scientific journals.



## GAME FINDS ANSWERS – IN THE OCEANS

Using the findings from many comparable individual studies, GAME participants draw conclusions that are transferable and universally applicable.

The oceans contain the greatest variety of species on earth, but are much less well researched than terrestrial habitats. They are of tremendous significance as a source of organic and non-organic resources and as a climate buffer. GAME concentrates on the coastal regions of our planet, as they are of paramount importance for humanity: They store major food resources, provide carbon dioxide sinks and stabilise coastal lines. Already, more than 50 % of the world's population live close to the sea and this percentage is rising continually. For this reason, coastal seas are most affected by global change, as climate warming, rising sea levels, species transfers and intense human use all come together here. This can have far-reaching consequences for the ways in which these ecosystems function.

GAME studies the effects of global change on these habitats of major significance to mankind. Several projects, for example, have studied factors influencing biodiversity. GAME is also interested in issues in invasion ecology and studies the ways in which environmental changes affect the interrelations between species.

> Information on GAME's research projects is available at [www.geomar.de/go/game](http://www.geomar.de/go/game)



*In the field of marine ecology, GAME provides an example of the genuine and sustainable transfer of technology and knowledge from the "North" to "newly industrializing countries". The programme also raises young German scientists' awareness of the problems and difficulties of the partner countries.*

Nikolaus Gelpke, Marine biologist  
Publisher of the journal MARE and member of the GAME board of trustees





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