

Aquaculture@Fraunhofer

In the Case of Fraunhofer Research Institution for Individualized and Cell-Based Medical Engineering
IMTE

The Fraunhofer-Gesellschaft

At a glance

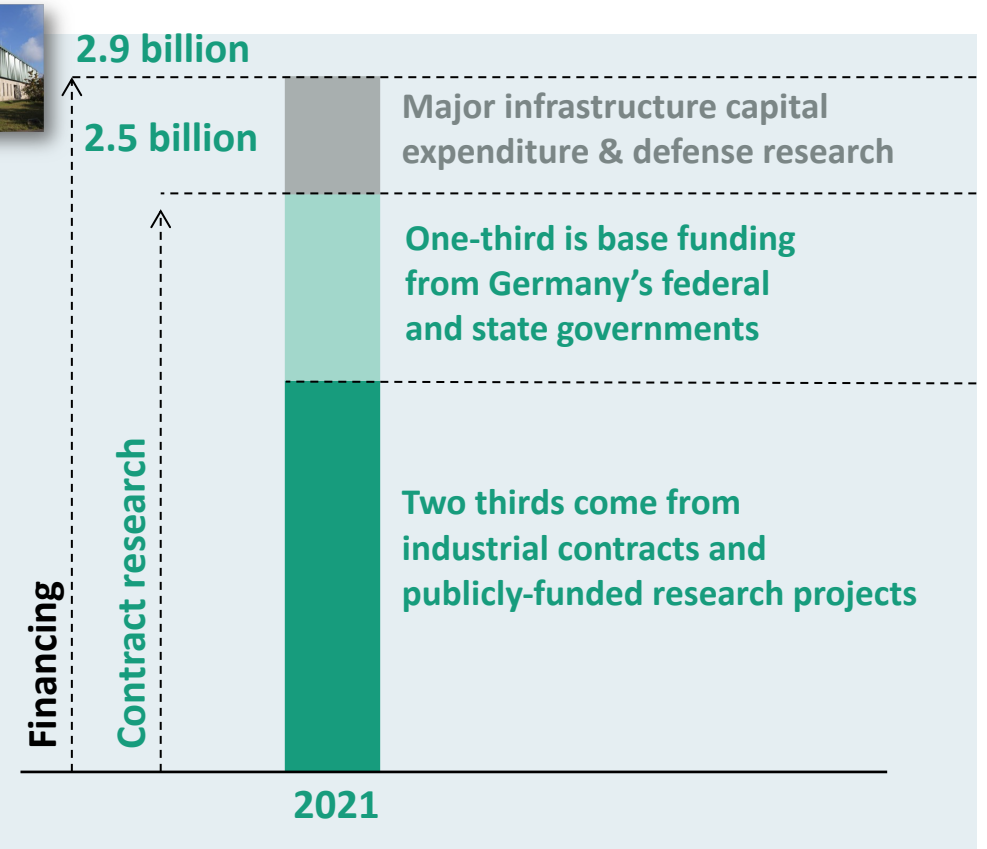
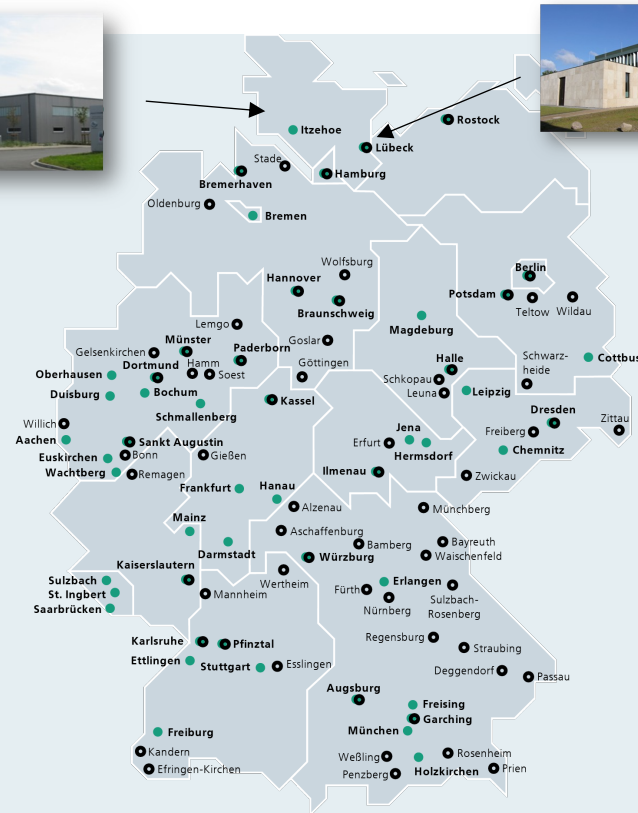
Applied research with a focus on key future-relevant technologies and the commercialization of findings in business and industry. A trailblazer and trendsetter in innovative developments.



> 30,000 employees



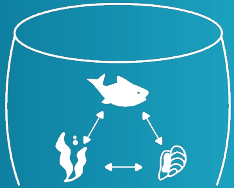
76 institutes and research units





Our competences

in the field of aquaculture and aquatic resources



Experimental Aquaculture Systems



Fish Health and Welfare



Fish Nutrition and Husbandry



Food Technology & Human Nutrition

Competencies of IMTE

Focus and competencies

- Investigations and developments in animal health and animal welfare in vivo and in vitro (use of cell culture techniques)
- Development and investigation of novel raw materials and additives for feeding aquaculture organisms
- Research and application of innovative aquaculture systems (RAS) and components (Co-Culture, aquaponics, filter systems)
- Use of aquatic resources for applied food research to develop innovative foods and ingredients

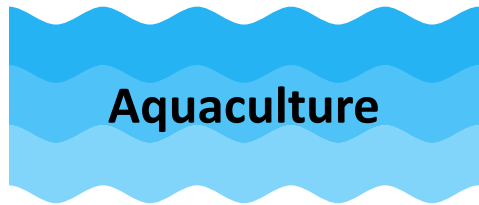
Reference project examples

- **Part of the Innovation room Bioeconomy on marine locations e.V (BaMS):** Research and development in the field of sustainable blue bioeconomy
- **SALHEARTCELL:** Vaccine Development using novel Fish cell cultures
- **CoNaFi:** Optimization of feeding management in fish larvae rearing to improve larval quality and survival rate using copepods.
- **OASEE:** Optimization of the air conditioning of an aquaculture hall to increase energy efficiency and to improve the humidity balance (hygiene) with innovative use of model-predictive approaches for intelligent and energy-efficient control
- **„Ich liebe Fisch“:** Aquaponics and integrated aquaculture in Malawi

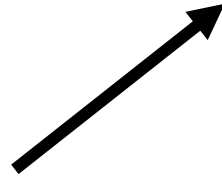


Challenges

And our approaches to overcoming them



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Spektrum.de

NEWS

Umweltbelastungen durch Aquakultur

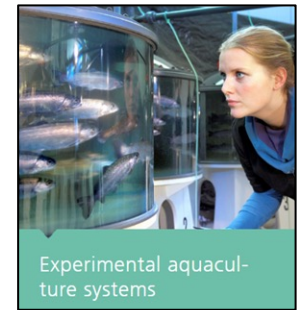
SWR» KULTUR

Fische zu Fischfutter – Doku über die dramatischen Folgen der Fischmehl-Industrie

SPIEGEL Wissenschaft
Lebensmittel

Fische aus Zuchtanlagen stark mit Medikamenten belastet

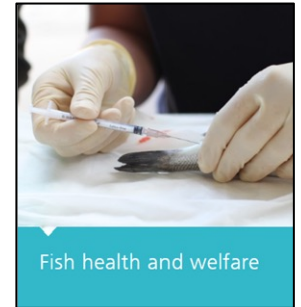
Fisch ist gesund - so das gängige Urteil. Nach neuesten Erkenntnissen der Bundesregierung kann man daran Zweifel bekommen. Laut SPIEGEL ist die Zahl der mit antimikrobiellen Medikamenten behandelten Tiere in der Fischzucht alarmierend.



Experimental aquaculture systems



Fish nutrition and husbandry



Fish health and welfare



Food Technology

Thank you for your attention !!!



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