

**Joint Programming Initiative  
Healthy and Productive Seas and  
Oceans**

**Contributing to the elaboration of a Belgian policy  
June 5<sup>th</sup>, 2018, Brussels**

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<http://www.jpi-oceans.eu/>

# JPI Oceans – an intergovernmental process

## ***Vision:***

Enabling Blue Growth and jobs whilst fostering the health and productivity of seas and oceans and addressing the pressures posed by climate change and human impacts.

## ***Mission:***

Providing a strategic platform for a long-term approach to marine and maritime research and innovation to increase impact of investments.

## ***Members***

### **21 member countries**

Management Board of Ministries and Research funding bodies

European Commission services as observer (DG RTD)

International Partners may engage in actions case by case bas

**JPI Oceans covers all European sea basins and European interests in the global ocean**



# Strategic Research and Innovation Agenda 2015-2020



# JPI Oceans Joint Actions

Joint Actions are used to implement the Strategic Research and Innovation Agenda.

Actions are proposed by a lead country or countries – at least 4 countries should be involved for each JPI Oceans action

The size and scope of each action varies, depending on the research needs

The tools used depend on the objective to be achieved.

Tools include:

- National research funding (alignment/joint calls)
- Institutional investments (in kind)
- Sharing Existing infrastructure/new investments
- Using H2020 tools (eg ERANET Cofunds)
- Research alliances/knowledge hubs
- Capacity building
- .....

Exchanging information, best practices, methodologies and guidelines;

## RESOURCES

JPI Oceans and its supporting projects have developed a number of resources to facilitate joint programming.



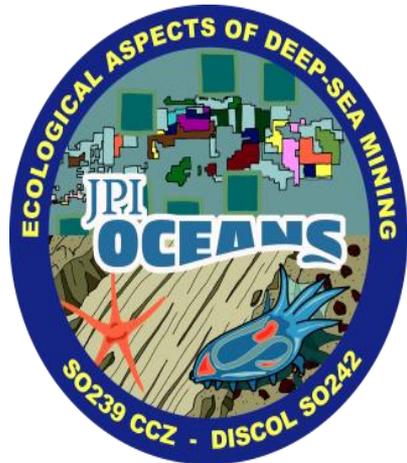
Developing appropriate science / policy interfaces



Promoting interdisciplinary approaches & stimulating exchanges across the marine and maritime sectors



# Some ongoing actions



EcoMining research project (shared infrastructure), new call 2017



Ecological aspects of Micro-Plastics, 4 projects ongoing, new call in preparation

## Observations Calibration Network



## Munitions in the sea – science, technology and best practice



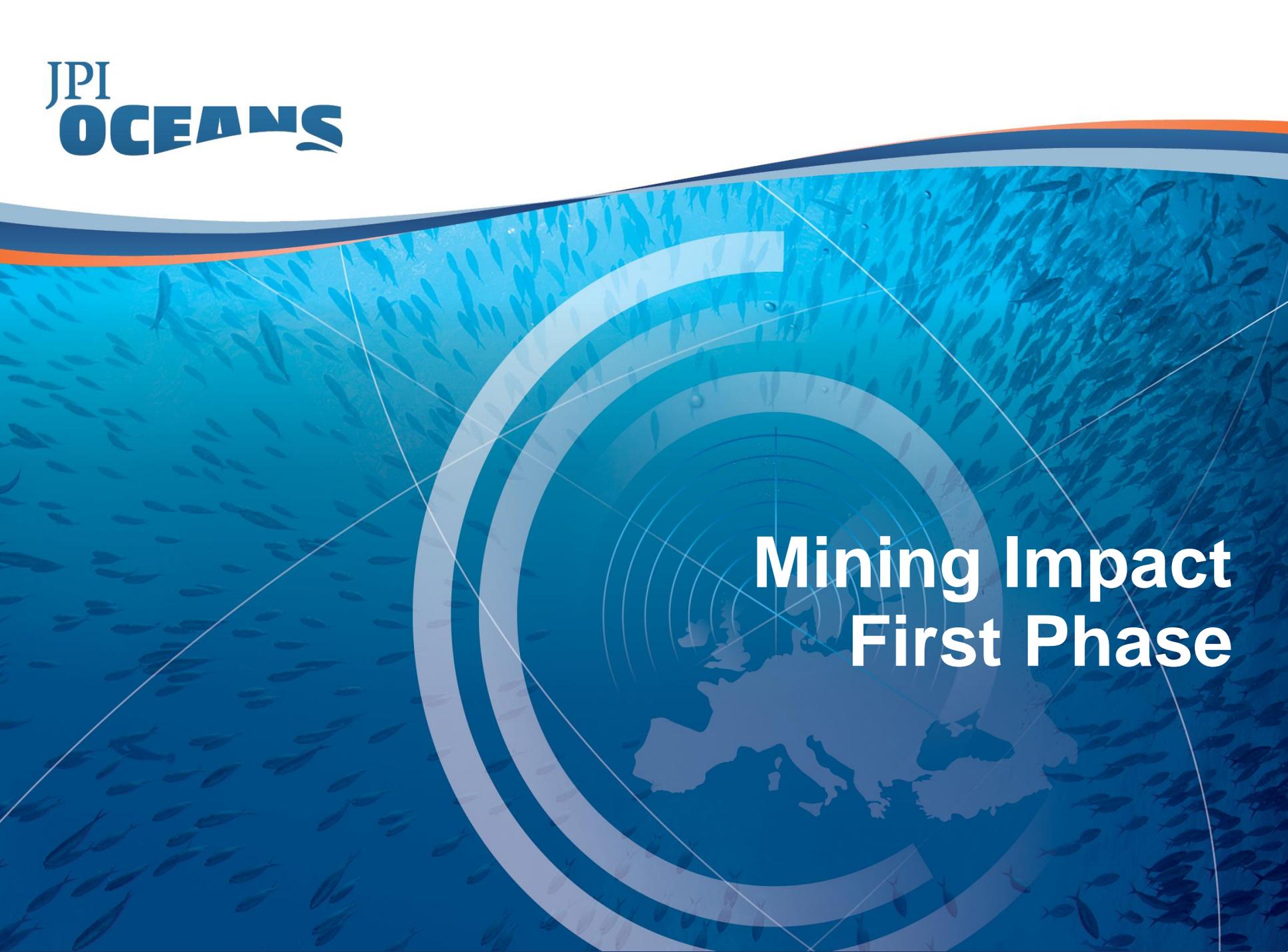
60 Million Euro first call 2017

- Environmentally friendly maritime technologies
- Development of novel materials and structures
- Sensors, automation of blue economy
- Advanced manufacturing and production
- Safety and security

Intercalibration for the Water Framework (pilot action - complete)  
 Joint use of infrastructures in the North Sea (pilot action- complete)

## Joint Actions at 'planning stages'

- Blue Bioeconomy ERANET Cofund (proposal submitted – Norway lead, with 17 other countries – of order 30 million euros)
- Integrated Assessment of Effects of New Pollutants (proposal for ERANET Cofund also with JPI Water and also knowledge hub – Spain and Norway co-lead)
- Ocean/Climate interactions JPIs Climate and Oceans (joint call - France and Spain co-lead)
- Ecosystem Goods and Services for Coastal and Marine Waters (possible knowledge hub - France and Sweden colead)
- Cumulative Effects of Anthropogenic Disturbances (knowledge hub – Netherlands and Estonia co-lead)
- Food and Nutrition Security- (JPIs FACCE, HDHL, Oceans – knowledge hub)
- Marine Spatial Planning (science to inform MSP – Italy leads)

The background is a deep blue gradient filled with a dense school of small fish swimming in various directions. Overlaid on this is a semi-transparent globe showing the continents of Europe and Africa. In the center of the globe are several concentric white circles, resembling a target or a radar display. The overall composition is dynamic and suggests a focus on marine resources and global impact.

# **Mining Impact First Phase**

# Pilot Action: Ecological aspects of deep-sea mining

- 11 member countries (DE, BE, FR, IT, NL, NO, PL, PT, RO, SE, UK) initiated a joint research project in 2015.

## Aim

- Integration of national research activities and joint use of infrastructures.

## Objectives

- Analyse the long-term ecological impacts of deep-sea mining and devise monitoring strategy.
- Ultimately, make recommendations to policy-makers, industry and the ISA.



# EcoMining Project

## Activities

- Germany offered 118 days on the *RV Sonne* for a joint cruise in the Pacific.
- Researchers from 25 institutes jointly studied:
  - Environmental status of polymetallic nodule habitats in the DISCOL Area
  - Implications for future nodule mining activities in the CCFZ

## Scientific Coordination

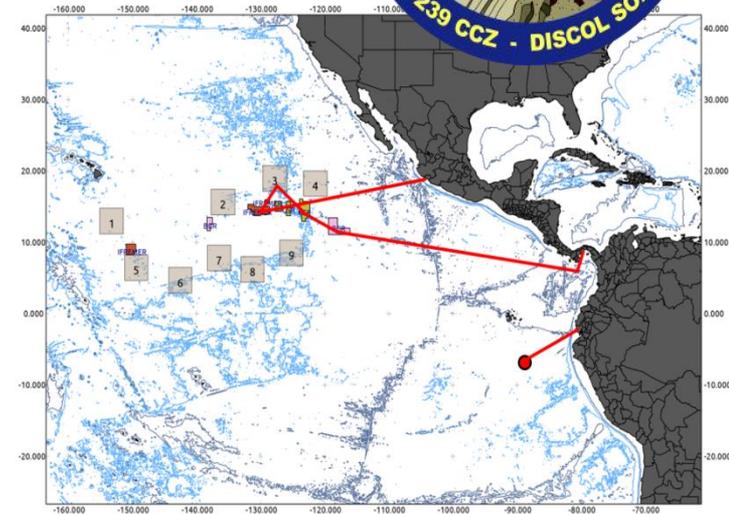
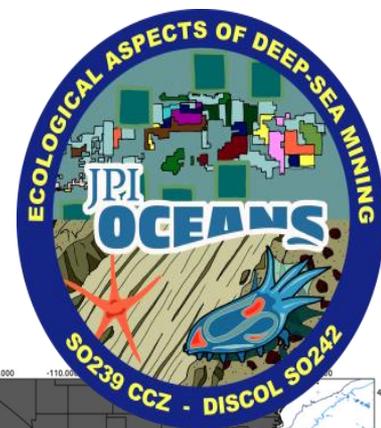
GEOMAR Helmholtz Centre for Ocean Research  
Kiel

## Project duration

Jan. 2015 – December 2017, including 3-legged cruise

## Budget

Approx. € 13.2m (cash 6.2m €, 118 ship days, 3.5m€ in-kind)



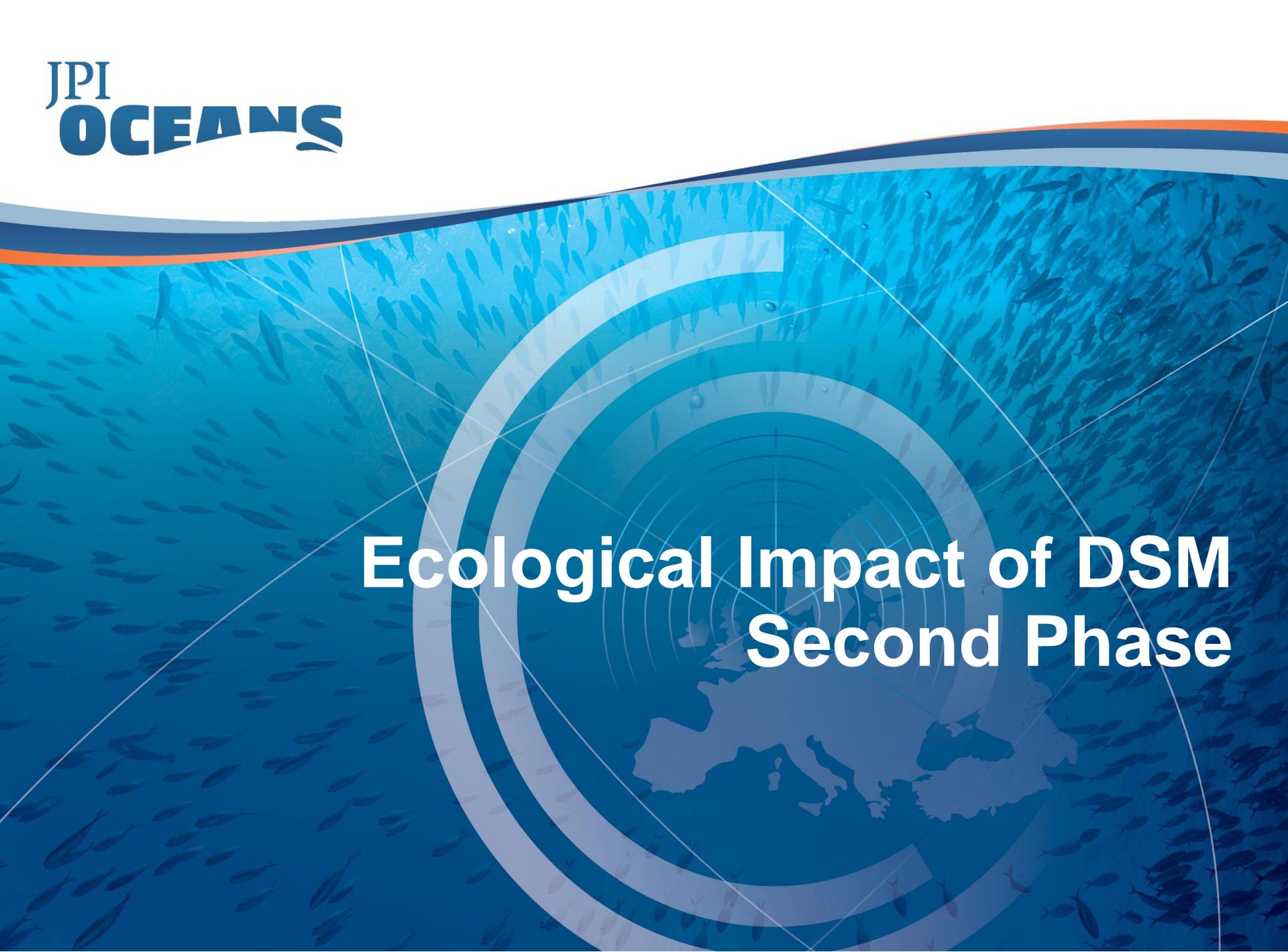
# Impacts

- Integration of national research activities
- Joint use of costly research infrastructures
- Delivering scientific input to the global regulatory framework developed by the International Seabed Authority.
- Recognition by the G7 Science Ministers.
- Recommendations for industry.
- Producing excellent science (publications in *Science*, *Nature*, etc.)
- Follow-up: Joint Call for proposals for next project closed in November 2017.



G7 GERMANY  
2015 | Wissenschaftsministertreffen

Communiqué  
Meeting of the G7 Ministers of Science  
Berlin, 8–9 October 2015

The background of the slide is a deep blue color. It features a large, dense school of small fish swimming in various directions. Overlaid on this is a faint, light blue map of the world, centered on the Atlantic Ocean. In the foreground, there are several concentric, semi-transparent circles in shades of blue and white, creating a ripple effect. The text is centered over these elements.

# **Ecological Impact of DSM Second Phase**

# Follow-up Action

- The EcoMining Project came to an end on 31<sup>st</sup> of December 2017
- 1<sup>st</sup> phase was conducted successfully - however, several aspects need to be investigated further:
  - the fate and impact of mining generated particle plumes
  - the definition of appropriate indicators of ecosystem health and threshold values for “harmful effects”
  - measures to mitigate significant adverse effects,
  - an assessment of associated environmental risks
  - implementation of scientific knowledge into improved legislation for ISA

# New Call For Proposals

- On August 1, 2017, several JPI Oceans MS launched a joint call for proposals to further study environmental impacts and risks associated with seabed mining.
- It calls for cruise proposals on RV SONNE in early 2019 to be conducted in the CCFZ
- **Proposals should be linked to an industrial field trial / demonstration project of mining equipment in the deep sea.**

The screenshot displays the JPI Oceans website interface. At the top left is the JPI OCEANS logo. A navigation menu includes links for CALL, BROKERAGE SPACE, PARTNERS, JPI OCEANS WEBSITE, and LEGAL NOTICE. A blue button labeled 'Pg submission' is visible in the top right. The main content area features a header image of deep-sea nodules with the text 'JPI OCEANS MININGIMPACT' on the left. Below this is a 'CONTACT' sidebar listing Dr. Ulrich Wolf (+49 381 20356 277, u.wolf@fz-juelich.de) and Dr. Norbert Blum (+49 381 20356 293, n.blum@fz-juelich.de). The main text area is titled 'IMPACTS OF DEEP-SEA NODULE MINING' and contains the following text: 'SEVERAL JPI OCEANS MEMBER COUNTRIES LAUNCHED A JOINT CALL FOR PREPROPOSALS TO STUDY THE ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH SEABED MINING'. Below this, it states: 'This call is being conducted as a follow-up of the Joint Action under the framework of JPI Oceans. It calls for cruise proposals on the RV SONNE in early 2019 in the Clarion-Clipperton Fracture Zone (CCZ), subequatorial eastern Pacific.'

# Towards a next project

- One integrated proposal was submitted and positively evaluated
- Grant Agreements are still being concluded at national level.
- Project is scheduled to start on 1 August 2018, with joint cruises on RV SONNE (SO286) from Feb. 18 to May 18 2019 in the CCFZ
- Project will independently study the environmental impacts of a pilot nodule mining test by a Belgian company.
- **Importantly, JPI Oceans member countries not funding any mining operator, but are funding scientists to conduct independent research on an independent vessel, seeking to deliver independent advice to the ISA.**

# JPI OCEANS

THANK YOU

Website: [www.jpi-oceans.eu](http://www.jpi-oceans.eu)

Twitter: [@jpioceans](https://twitter.com/jpioceans)