

# ENHANCING HNS PREPAREDNESS THROUGH TRAINING AND EXERCISING

## MARINER



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### *Project overview*

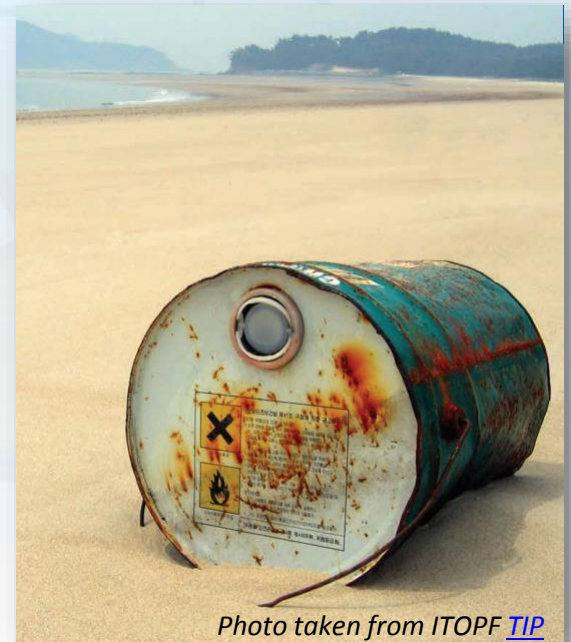
**Using technology towards a better preparedness to HNS spills**  
**28<sup>th</sup> April 2017. CIIMAR, Porto**



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European Union  
Humanitarian Aid

# Background

- The transportation of chemicals has grown considerably in the recent years (estimated 215 Million tonnes in 2015 ([source](#)));
- Approximately 2,000 different chemicals are transported by sea ([source](#));
- **Accidents involving chemicals happen:** Around 100 incidents happened in European waters between 1987 and 2006. (EMSA, [Source](#)).
- **HNS spills pose risks to the environment and human health;**
- **HNS response can be extremely challenging**
- **Fragmented research on HNS preparedness and response.**



# Project bullet points

## Objective:

Improve regional cooperation in planning, preparedness and response to HNS spills by:

- Compiling HNS R&D outcomes and making them accessible to planners, responders and other stakeholders
- Improving training and exercise capabilities;
- Upgrading and/or improving tools to support decision making and response;
- Increasing awareness and encouraging information exchange.

**Co-financing Programme:** Call 2015 for prevention and preparedness projects in the field of civil protection and marine pollution. DG-ECHO.

**Policy area of activity:** Preparedness.

**Start date:** 1<sup>st</sup> January 2016

**End date:** 31<sup>st</sup> December 2017

**European Commission contribution:** 748.910 EUR (75 %)

**Total budget:** 998.547 EUR



# Partners

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1. Centro Tecnológico del Mar – Fundación CETMAR [Link](#) *Coordinator*
2. INTECMAR - Instituto Tecnológico para o Control do Medio Mariño de Galicia [Link](#)
3. Universidade de Vigo [Link](#)



4. Action Modulers [Link](#)
5. CIIMAR: Interdisciplinary Centre of Marine and Environmental Research [Link](#)



6. Public Health England [Link](#)



7. Cedre - Centre of Documentation, Research and Experimentation on Accidental Water Pollution [Link](#)



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# Advisory Board

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1. **Salvamento Marítimo - Sasemar**
2. **Ministry of Agriculture and Fisheries, Food and Environment. Sea Protection Division**
3. **Galician Coastguards**



4. **Maritime Authority Directorate General. Marine Pollution Response Directorate**



5. **Maritime & Coastguard Agency**

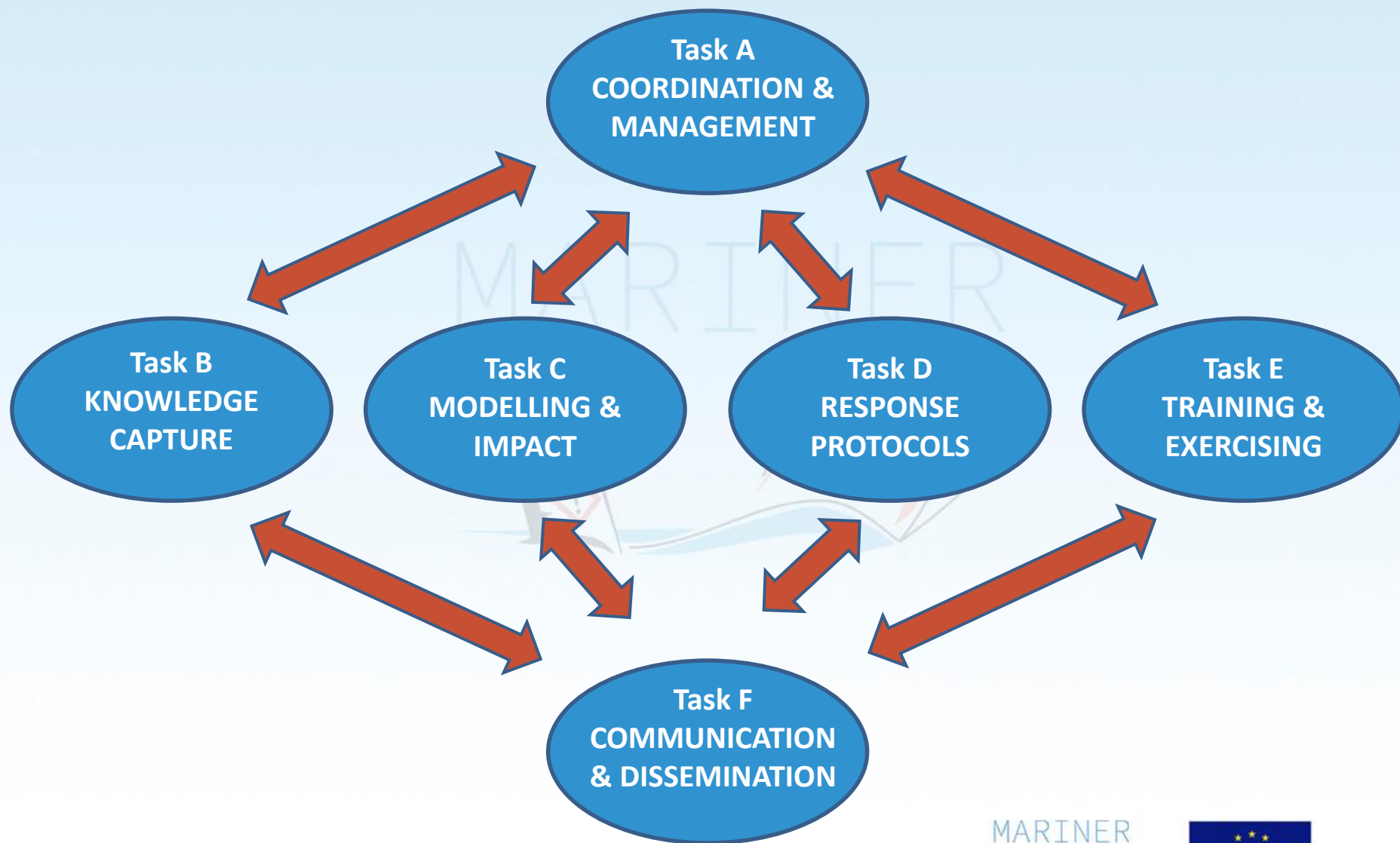


6. **Secretariat General for the Sea**



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# Project tasks





# HNS knowledge compilation & facilitation

## Specific objective:

Identify and compile existing HNS preparedness and response knowledge generated by EU funded public research as well as existing resources and make them easy available to end users through a user friendly tool connected to existing platforms and by targeted transfer actions.

**Manager:** CETMAR

**Participants:** All

## Main results :

- A user friendly visualization and knowledge management **tool gathering all relevant information addressing key issues on HNS.**
- Set of **graphical materials.**
- **Key outputs transferred.**



# HNS modelling and environmental impact

## Specific objective:

- Improve the interoperability and the operational use of tools for modelling HNS transport, behaviour and biological impact;
- Definition of protocols and guidelines for environmental impact assessment of HNS spills.

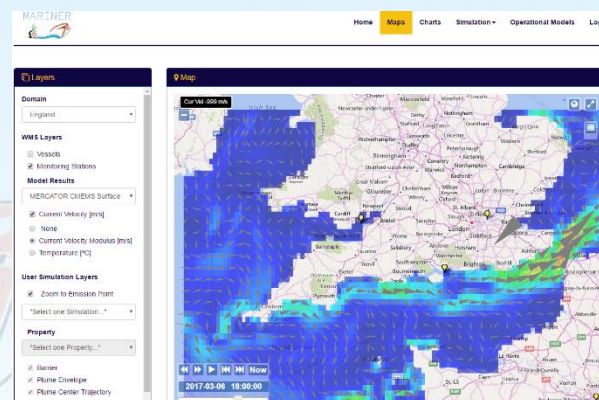
**Manager:** Action Modulers.

**Participants:** INTECMAR, CIIMAR, CEDRE, Uvigo.

## Main results

- Improved **HNS spill model integrated into a Common Operating Picture**. Includes a module on environmental effects at population level..

- Cross border guidelines and **protocols for HNS environmental impact assessment**.



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# HNS response – seeking synergies with experts

## Specific objective:

- Identification of existing expertise from chemical industry, civil protection mechanisms and fire's crews and their main response protocols and equipment to be adapted for marine events.
- Development of Good Practices and training and exercise activities to test protocols and new equipment with antipollution vessels operating in coastal areas.

**Manager:** INTECMAR.

**Participants:** CEDRE, PHE, CIIMAR, AM, Uvigo.

## Main results

- **Adapted equipment and response protocols to be included in contingency plans**
- **Training and exercise events to test the adapted protocols in specialized antipollution vessels.**
- **Multilingual video on training**



# HNS training and exercising

## Specific objective:

- Develop and trial an innovative training and exercise software tool aimed at shoreline maritime HNS incident preparedness for public health protection.
- Apply and incorporate EU and international cross-border preparedness protocols within exercise scenarios.
- Develop training materials packages and delivery of courses addressed to cover key issues of HNS preparedness and response, including modelling .

**Manager:** Public Health England.

**Participants:** CEDRE, Uvigo, AM, CIIMAR, INTECMAR.

## Main results:

- Web based database exercise tool.
- E-learning materials on exercises and risk assessment.
- Training package on HNS spill management.
- Training package on HNS modelling.



# Communication

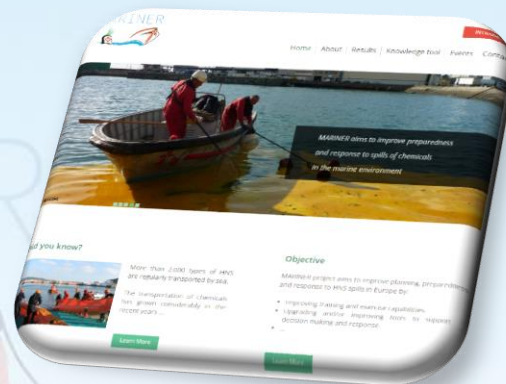
## Specific objectives:

Transfer project outputs to competent authorities through targeted actions and to raise awareness among the general public.



## Main results:

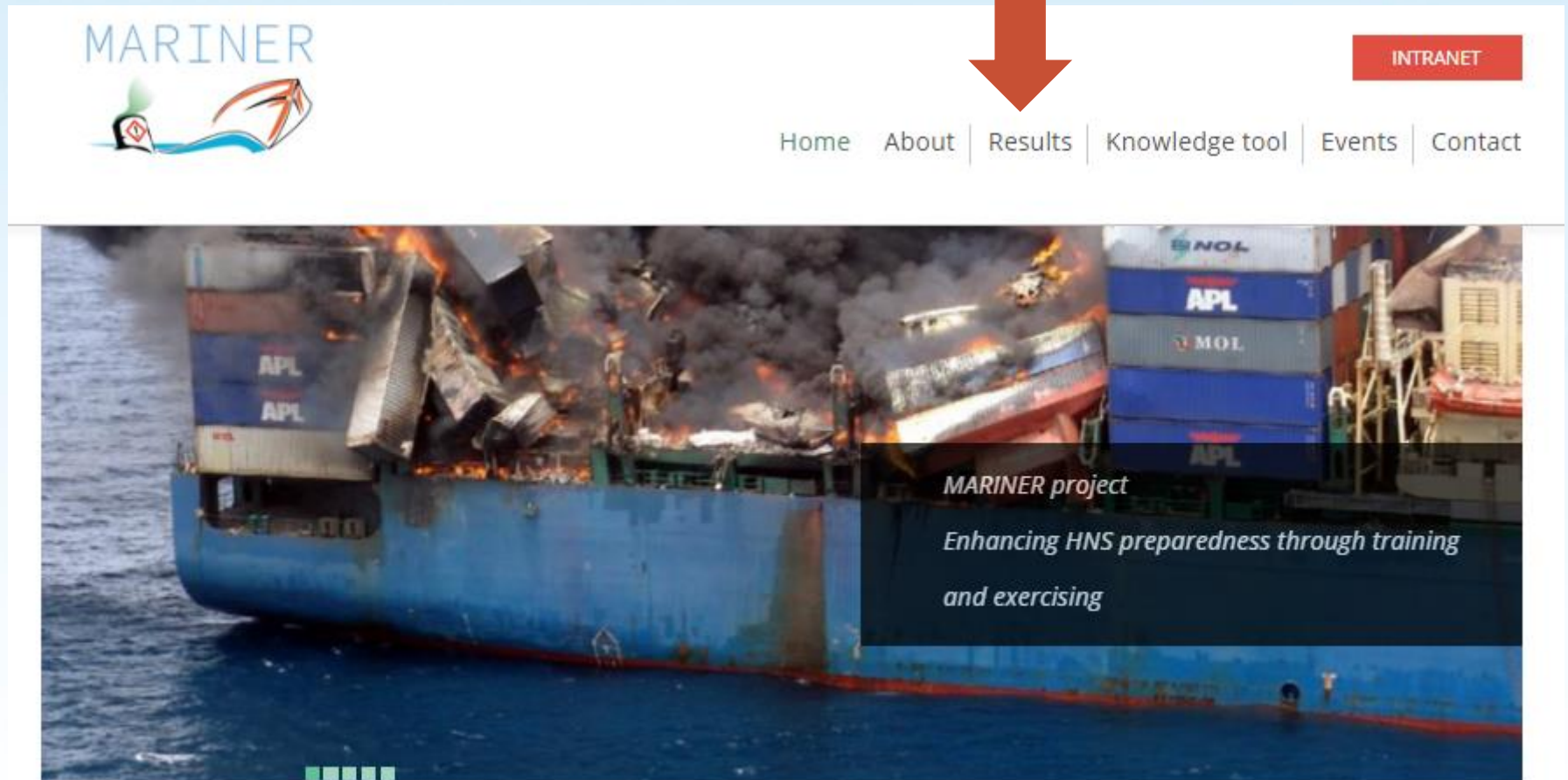
- **Website:** [www.mariner-project.eu](http://www.mariner-project.eu)
- **Twitter:** [@MARINER\\_HNS](https://twitter.com/MARINER_HNS)
- **Workshops:**
  - **Matosinhos (PT).** “Using Technology towards a better preparedness to HNS spills”. 28<sup>th</sup> April 2017.
  - **Wales (UK).** Presentation of the web based database exercise tool and training session. 28<sup>th</sup> June 2017.
  - **Brest (FR).** Training course on HNS spill management. 12<sup>th</sup> – 14<sup>th</sup> September 2017.
- **Final Conference: Vigo (ES).** December 2017.
- **Introductory video:** [link](#)



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# Project results

[www.mariner-project.eu](http://www.mariner-project.eu)



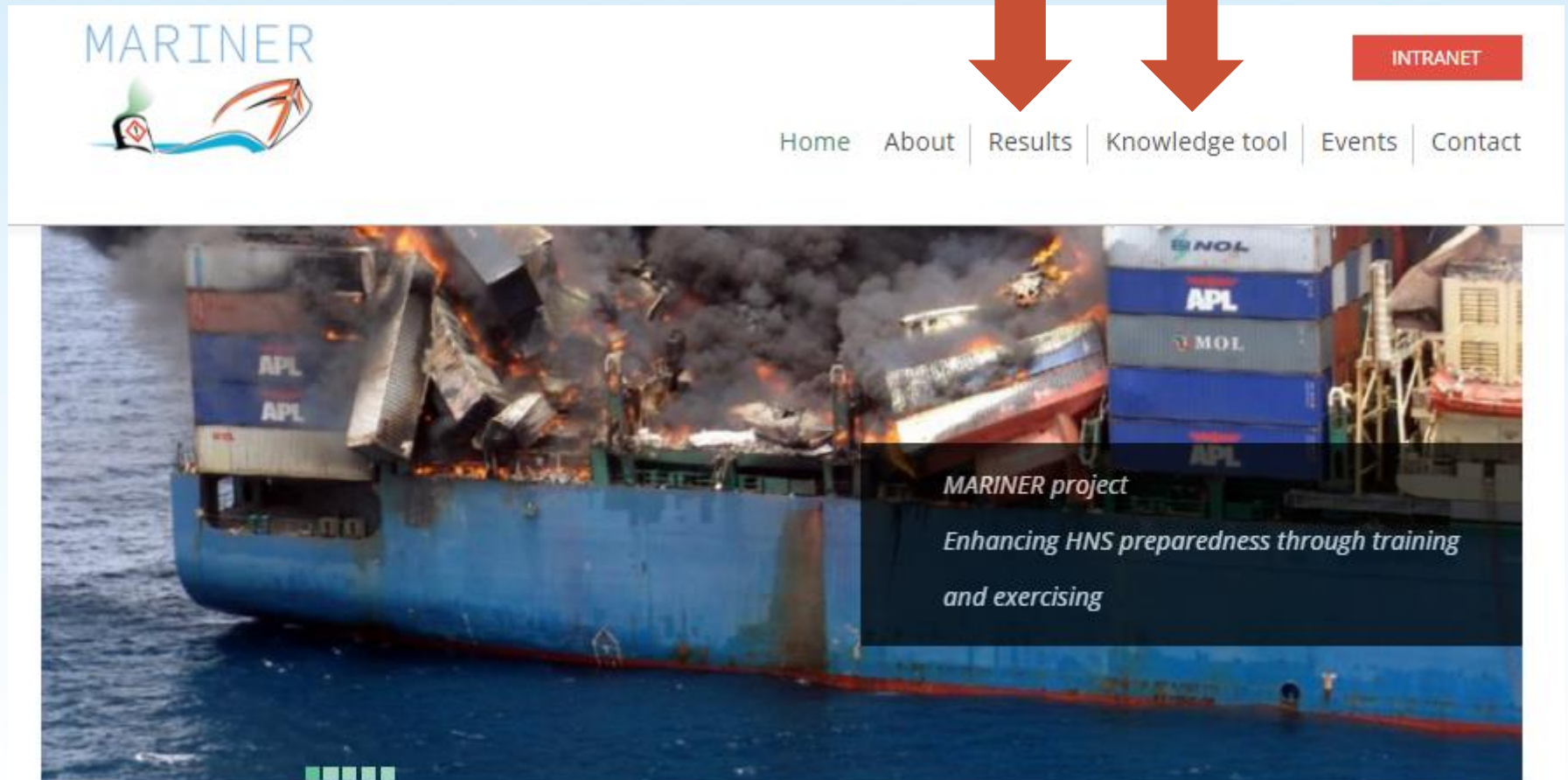
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PROJECT CO-FINANCED BY THE EUROPEAN UNION IN THE FRAMEWORK OF THE UNION CIVIL PROTECTION MECHANISM. DG-ECHO.



# Project results

[www.mariner-project.eu](http://www.mariner-project.eu)



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PROJECT CO-FINANCED BY THE EUROPEAN UNION IN THE FRAMEWORK OF THE UNION CIVIL PROTECTION MECHANISM. DG-ECHO.

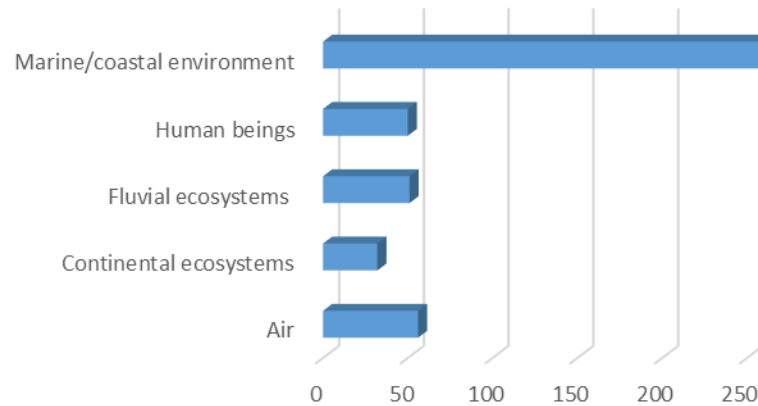




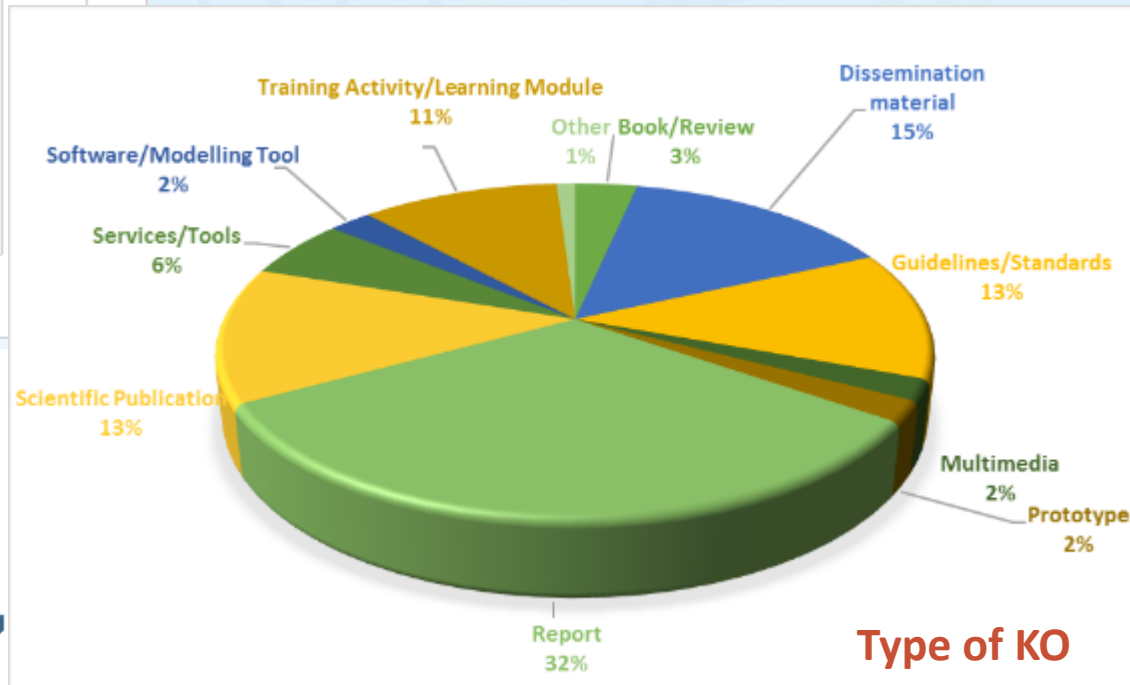
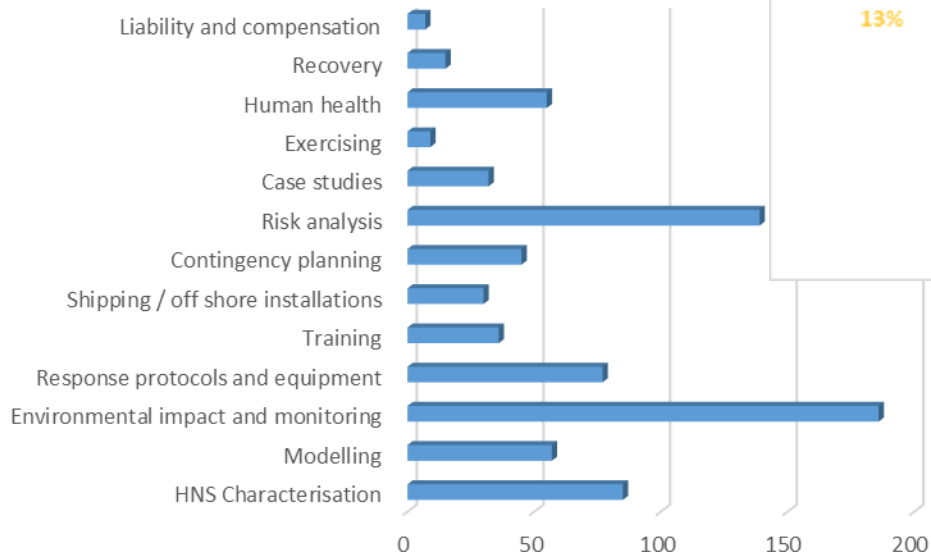
# HNS knowledge compilation & facilitation

## SOURCE: Projects

### Target environment



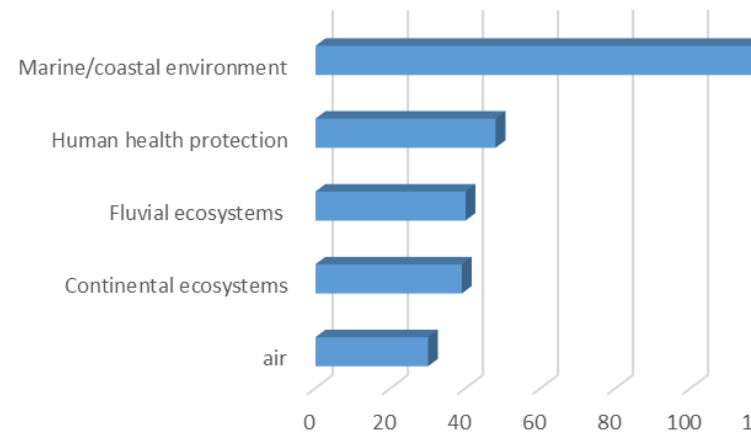
### Areas of knowledge



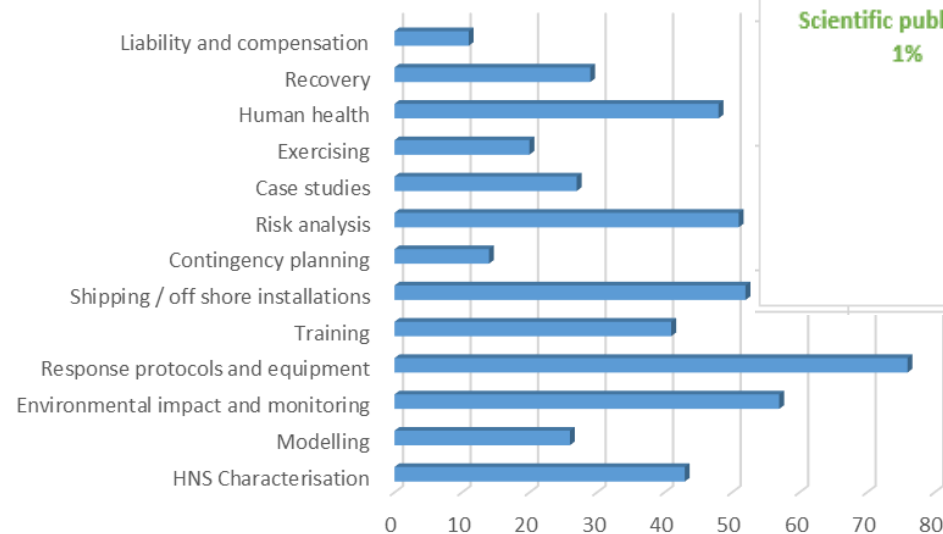
# HNS knowledge compilation & facilitation

## SOURCE: Organisations

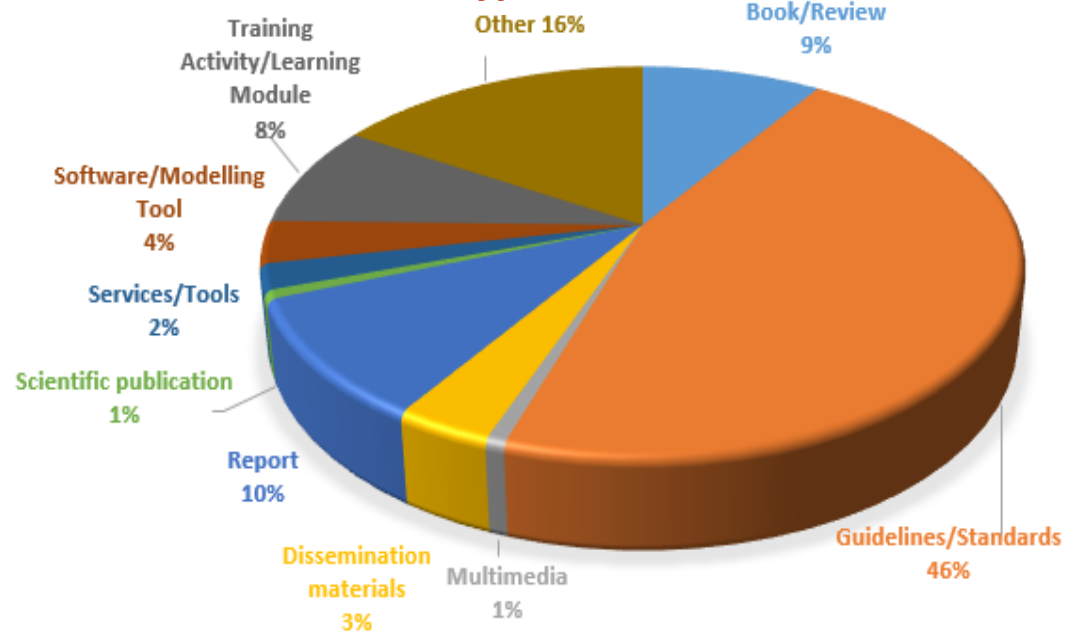
### Target environment



### Areas of knowledge




### Type of KO




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# HNS knowledge compilation & facilitation

## Online knowledge tool

HOME ABOUT PROJECTS ORGANISATIONS KNOWLEDGE OUTPUTS CONTACT HELP




### MARINER Knowledge tool




#### Projects

National and EU projects




#### Key Organisations

International organisations



#### HNS Knowledge Outputs

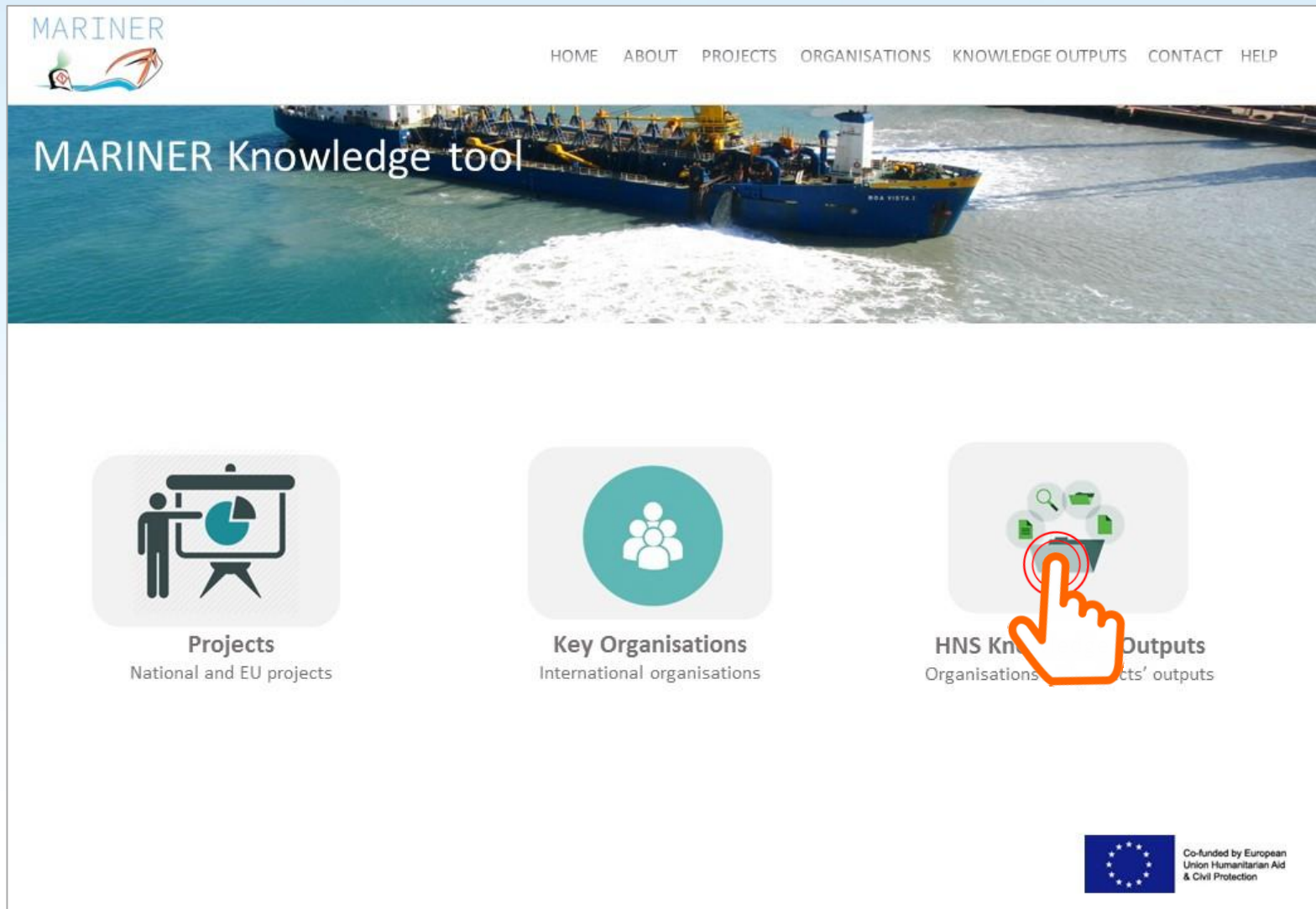
Organisations and projects' outputs



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# HNS knowledge compilation & facilitation

## Online knowledge tool



The screenshot displays the MARINER Knowledge tool website. At the top left is the MARINER logo, featuring a stylized figure and waves. To its right is a navigation menu with links: HOME, ABOUT, PROJECTS, ORGANISATIONS, KNOWLEDGE OUTPUTS, CONTACT, and HELP. Below the menu is a large banner image of a blue ship, the RDA VISTA, moving through the water. The text 'MARINER Knowledge tool' is overlaid on the left side of the banner. Below the banner, there are three main content areas, each with an icon and a title. The first area has an icon of a person at a presentation board and is titled 'Projects' with the subtitle 'National and EU projects'. The second area has an icon of a group of people and is titled 'Key Organisations' with the subtitle 'International organisations'. The third area has an icon of a hand pointing at a screen with various symbols and is titled 'HNS Knowledge Outputs' with the subtitle 'Organisations' and 'Projects' outputs. A large orange hand cursor icon is pointing at the 'HNS Knowledge Outputs' section. In the bottom right corner, there is a European Union flag logo and the text 'Co-funded by European Union Humanitarian Aid & Civil Protection'.

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MARINER Knowledge tool

**Projects**  
National and EU projects


**Key Organisations**  
International organisations


**HNS Knowledge Outputs**  
Organisations' outputs


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# HNS knowledge compilation & facilitation


## Online knowledge tool

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HNS AREA OF KNOWLEDGE


GEOGRAPHICAL SCOPE APPLICABILITY


ADVANCED SEARCH

# HNS knowledge compilation & facilitation

## Online knowledge tool


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HNS AREA OF KNOWLEDGE

GEOGRAPHICAL SCOPE APPLICABILITY



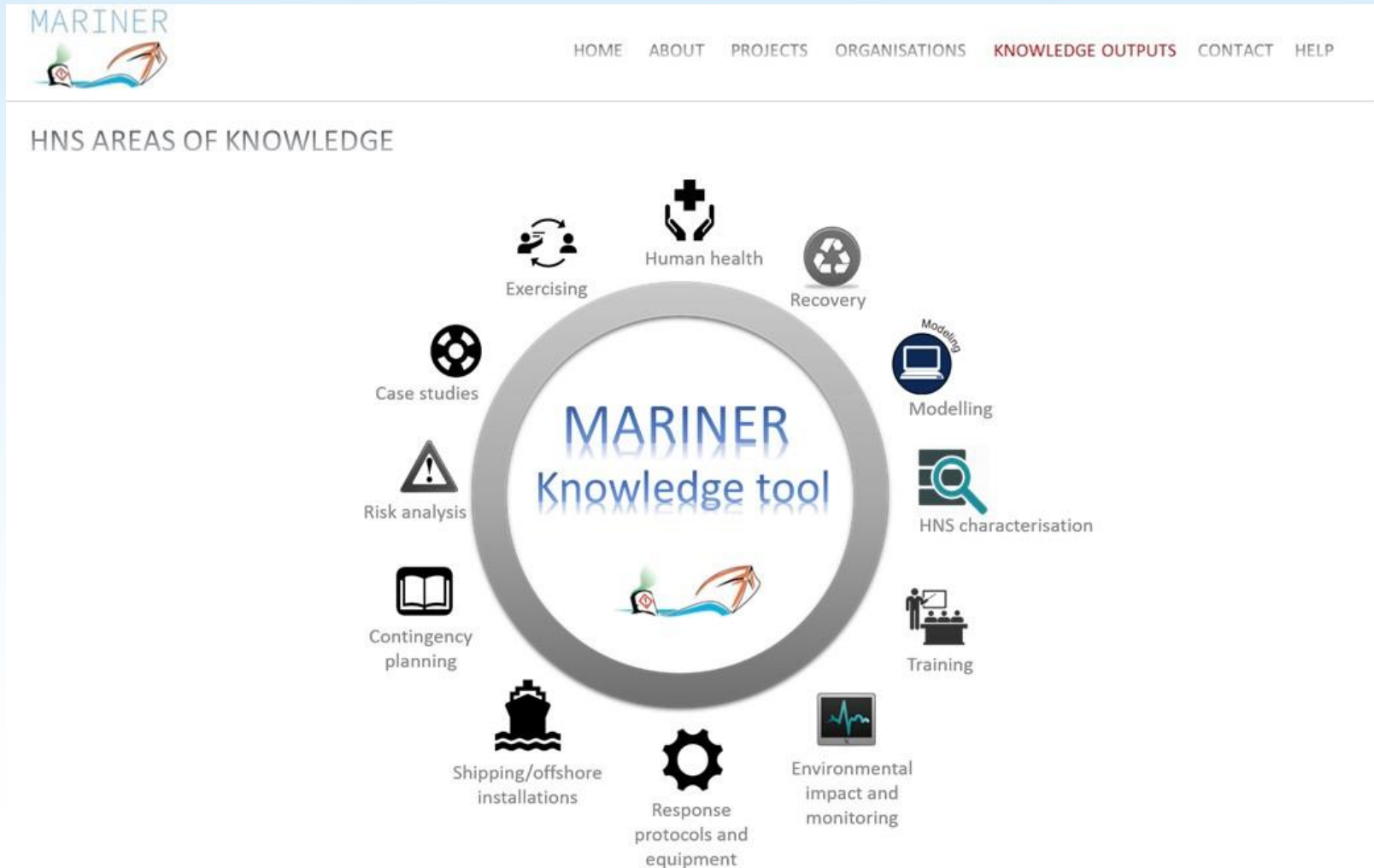


ADVANCED SEARCH



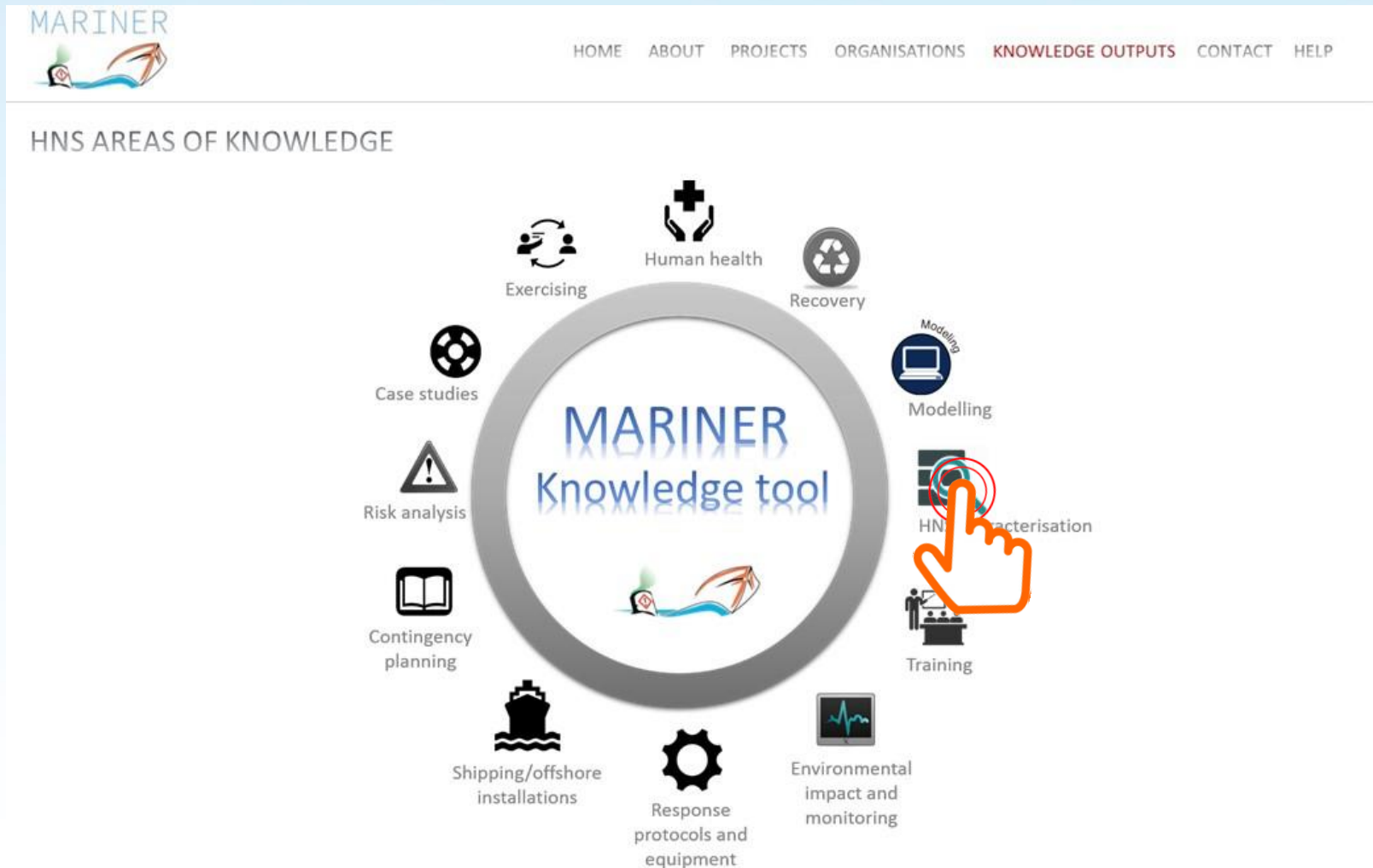
# HNS knowledge compilation & facilitation

## Online knowledge tool



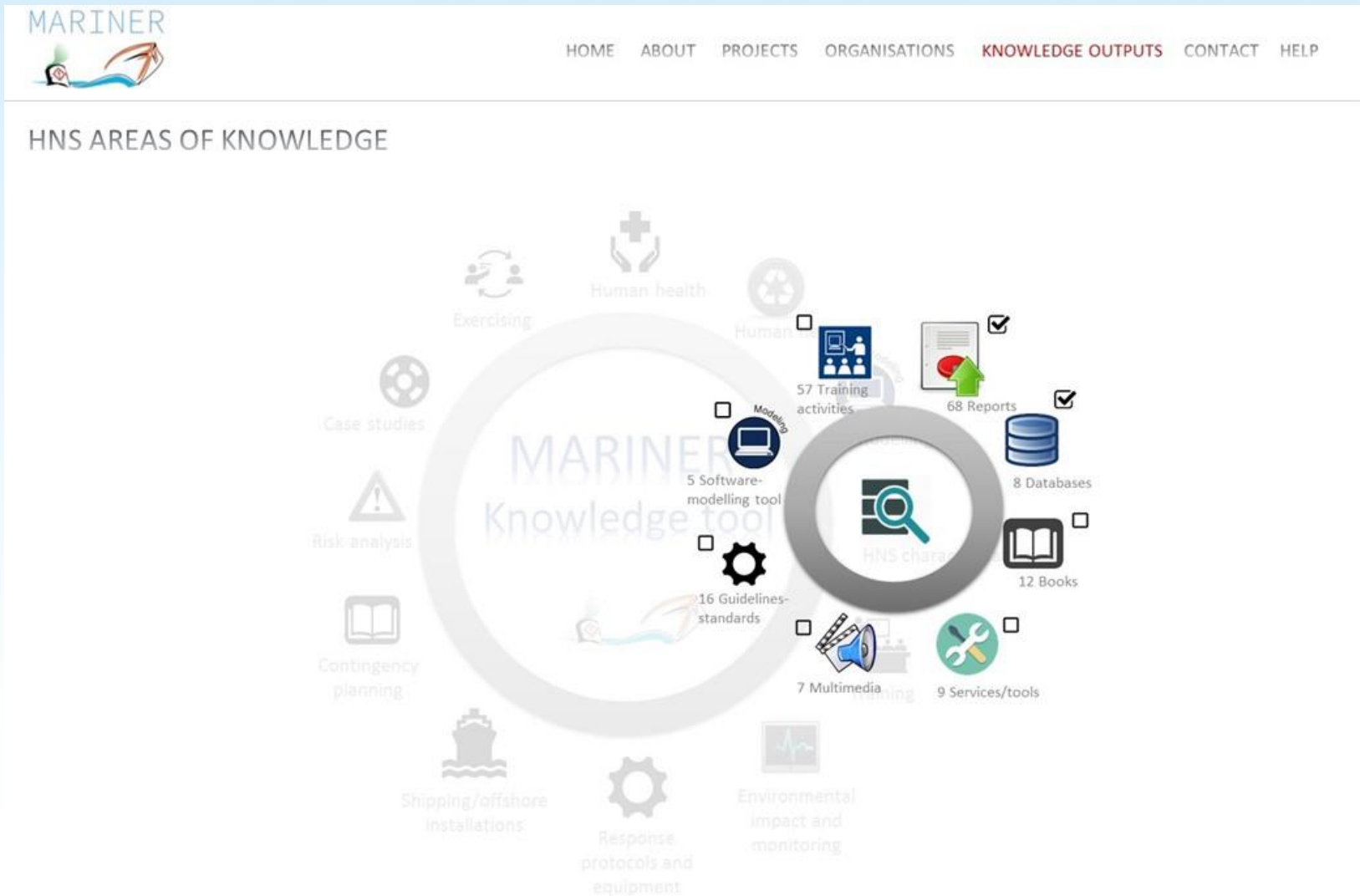
# HNS knowledge compilation & facilitation

## Online knowledge tool




# HNS knowledge compilation & facilitation


## Online knowledge tool





# HNS knowledge compilation & facilitation


## Online knowledge tool

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HNS AREA OF KNOWLEDGE

GEOGRAPHICAL SCOPE APPLICABILITY

ADVANCED SEARCH

# HNS knowledge compilation & facilitation

## Online knowledge tool



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### GEOGRAPHICAL SCOPE AVAILABILITY




(\*) Taken from MEECE FP7 Project website (<http://www.meeceatlas.eu/Menu/>)





# HNS knowledge compilation & facilitation

## Online knowledge tool




[HOME](#) [ABOUT](#) [PROJECTS](#) [ORGANISATIONS](#) [KNOWLEDGE OUTPUTS](#) [CONTACT](#) [HELP](#)






### HNS AREA OF KNOWLEDGE

### GEOGRAPHICAL SCOPE APPLICABILITY





### ADVANCED SEARCH




# HNS knowledge compilation & facilitation

## Online knowledge tool

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### ADVANCED SEARCH

Free search    Keywords / Project / Title		Q
Target environment ?	Geographical scope applicability ?	
Select environment	Select area	
HNS areas of knowledge ?	Potential end-users ?	
Select area	Select end-users	
Type of resource ?	Language ?	
Select type	Select language	
Reset Form		Search

(\*) Modified from OBIS online database ([www.iobis.org](http://www.iobis.org))

# Thank you!

## MARINER



For further information, do not hesitate to contact:

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- Patricia Pérez: [pperez@cetmar.org](mailto:pperez@cetmar.org)



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