

## **Call 2019**

# MarTERA Priority Areas

Maritime and Marine Technologies for a new Era

30.11.2018

#### Part 1

|  | Country & Agencies |                |                         |               |          |                   |               |  |
|--|--------------------|----------------|-------------------------|---------------|----------|-------------------|---------------|--|
| Priority Area (PA)   |                    | ву ВЕ          |                         | ES            | F        | FR                |               |  |
|  |                    | VLAIO<br>1,2,3 | BMWi<br>1,2,3,4,<br>5,6 | CDTI<br>1,2,3 | ANR<br>3 | MTES<br>1,2,3,4,5 | MI<br>1,2,3,5 |  |
| 1. Environmental friendly maritime technologies  |                    |                |                         |               |          |                   |               |  |
| Emissions reduction  | -                  | ID             | ID                      | ID            | -        | ID                | FID           |  |
| Energy efficiency  | -                  | ID             | ID                      | ID            | ı        | D                 | FID           |  |
| Noise and vibration reduction  | -                  | ID             | ID                      | ID            | 1        | D                 | FID           |  |
| Innovative propulsion systems  | -                  | ID             | ID                      | ID            | -        | ID                | FID           |  |
| Technologies for sensitive regions   | -                  | ID             | ID                      | ID            | -        | ID                | FID           |  |
| Life Cycle management  | -                  | ID             | ID                      | -             | -        | ID                | -             |  |
| 2. Novel materials development and structures  |                    |                |                         |               |          |                   |               |  |
| Novel materials  | FID                | ID             | ID                      | ID            | -        | -                 | FID           |  |
| Biofouling and corrosion prevention  | FID                | ID             | ID                      | ID            | -        | -                 | FID           |  |
| Structures   | -                  | ID             | ID                      | ID            | -        | ID                | FID           |  |
| 3. Sensors, automation, monitoring and observations  |                    |                |                         |               |          |                   |               |  |
| Sensor developments  | FID                | ID             | ID                      | ID            | FI       | -                 | FID           |  |
| Monitoring and automation  | -                  | ID             | ID                      | ID            | FI       | -                 | FID           |  |
| Improved models for marine vehicles and structures behaviour   | -                  | ID             | ID                      | ID            | FI       | -                 | FID           |  |
| Deep Sea Mining  | -                  | ID             | ID                      | ID            | -        | -                 | -             |  |
| 4. Advanced Manufacturing/Production   |                    |                |                         |               |          |                   |               |  |
| <ul> <li>Top quality, globally competitive and environmentally friendly products</li> </ul>  | -                  | ID             | ID                      | ID            | -        | -                 | -             |  |
| Optimisation of production: improved and novel production<br>technologies for flexible manufacturing, with focus on organization and<br>networking along the value chain | -                  | ID             | ID                      | ID            | -        | -                 | -             |  |
| Automation of production   | -                  | ID             | ID                      | ID            | -        | -                 | -             |  |

| Priority Area (PA)  | Country & Agencies |                |                         |               |          |                       |               |
|---|--------------------|----------------|-------------------------|---------------|----------|-----------------------|---------------|
|   | BY                 | BE             | DE                      | ES            | FR       |                       | IE            |
|   | NASB<br>2,3        | VLAIO<br>1,2,3 | BMWi<br>1,2,3,4,<br>5,6 | CDTI<br>1,2,3 | ANR<br>3 | MTES<br>1,2,3,4,<br>5 | MI<br>1,2,3,5 |
| <ul> <li>New concepts of the recycling-oriented construction, to final disposal<br/>vessels/platforms</li> </ul>  | -                  | ID             | ID                      | ID            | -        | -                     | -             |
| <ul> <li>Intelligent/innovative interacting components</li> </ul>   | -                  | ID             | ID                      | ID            | -        | -                     | -             |
| Human computer interaction and Augmented Reality  | -                  | ID             | ID                      | ID            | -        | -                     | -             |
| 5. Safety and Security  |                    |                |                         |               |          |                       |               |
| Individual safety concepts harmonized with navigational requirements  | -                  | -              | ID                      | ID            | -        | ID                    | -             |
| Intelligent predictive maintenance systems  | -                  | ID             | ID                      | ID            | -        | ID                    | FID           |
| <ul> <li>ICT tools for monitoring and optimization of maritime operations (e.g.<br/>routing following best weather conditions)</li> </ul>   | -                  | ID             | ID                      | ID            | -        | ID                    | FID           |
| Hinterland connection through inland waterways  | -                  | ID             | ID                      | ID            | -        | ID                    | -             |
| Early warning and accident management systems   | -                  | ID             | ID                      | ID            | -        | ID                    | -             |
| Evacuation and rescue concepts  | -                  | ID             | ID                      | ID            | -        | ID                    | -             |
| Decision support systems  | -                  | ID             | ID                      | ID            | -        | ID                    | FID           |
| <ul> <li>Improve operations such as dynamic positioning systems, docking and<br/>mooring systems, automation of processes, optimized routing,<br/>handling of goods, subsea intervention</li> </ul> | -                  | ID             | ID                      | ID            | -        | ID                    | FID           |
| Budget (mil euro)   | 0.07               | 2.0            | 6.0                     | *             | 1.0      | *                     | 0.3           |

<sup>\*</sup> will be confirmed on the 7<sup>th</sup> December 2018

#### **Clarifications:**

The numbers below a funding agency indicate the types of organisations that are eligible for funding via the funding agency:

1. Start-ups

**2.** SME

3. Large scale enterprises

4. Research institutes

**5.** Universities

6. Other

The initials "FID" are used to indicate the supported types of R&D of an agency's programme:

**F**: Fundamental research

I: Industrial research

**D**: Experimental development

For further information and additional descriptions of the supported types of R&D for a specific funding agency, please read carefully the respective National Guidelines.

### Part 2

| Priority Area (PA)   | Country             |                  |                     |                         |                |  |
|--|---------------------|------------------|---------------------|-------------------------|----------------|--|
|  | MT                  | NO               | PL RO               |                         | TR             |  |
|  | MCST<br>1,2,3,4,5,6 | RCN<br>1,2,3,4,5 | NCBR<br>1,2,3,4,5,6 | UEFISCDI<br>1,2,3,4,5,6 | TÜBITAK<br>2,3 |  |
| 1. Environmental friendly maritime technologies  |                     |                  |                     |                         |                |  |
| Emissions reduction  | FID                 | FID              | ID                  | ID                      | I              |  |
| Energy efficiency  | FID                 | FID              | ID                  | ID                      | I              |  |
| Noise and vibration reduction  | FID                 | FID              | ID                  | ID                      | ı              |  |
| Innovative propulsion systems  | FID                 | -                | ID                  | ID                      | I              |  |
| Technologies for sensitive regions   | FID                 | FID              | ID                  | ID                      | 1              |  |
| Life Cycle management  | FID                 | FID              | ID                  | ID                      | 1              |  |
| 2. Novel materials development and structures  |                     |                  |                     |                         |                |  |
| Novel materials  | FID                 | FID              | ID                  | ID                      | 1              |  |
| Biofouling and corrosion prevention  | FID                 | FID              | ID                  | ID                      | 1              |  |
| • Structures   | FID                 | FID              | ID                  | ID                      | 1              |  |
| 3. Sensors, automation, monitoring and observations  |                     |                  |                     |                         |                |  |
| Sensor developments  | FID                 | FID              | ID                  | ID                      | I              |  |
| Monitoring and automation  | FID                 | FID              | ID                  | ID                      | I              |  |
| Improved models for marine vehicles and structures behaviour   | FID                 | FID              | ID                  | ID                      | I              |  |
| Deep Sea Mining  | -                   | -                | ID                  | ID                      | l              |  |
| 4. Advanced Manufacturing/Production   |                     |                  |                     |                         |                |  |
| <ul> <li>Top quality, globally competitive and environmentally friendly products</li> </ul>  | FID                 | -                | ID                  | ID                      | I              |  |
| <ul> <li>Optimisation of production: improved and novel production<br/>technologies for flexible manufacturing, with focus on<br/>organization and networking along the value chain</li> </ul> | FID                 | FID              | ID                  | ID                      | I              |  |
| Automation of production   | FID                 | FID              | ID                  | ID                      | I              |  |

|    | Priority Area (PA)  | Country             |                  |                     |                         |                |
|----|---|---------------------|------------------|---------------------|-------------------------|----------------|
|    |   | MT                  | NO               | PL                  | RO                      | TR             |
|    |   | MCST<br>1,2,3,4,5,6 | RCN<br>1,2,3,4,5 | NCBR<br>1,2,3,4,5,6 | UEFISCDI<br>1,2,3,4,5,6 | TÜBITAK<br>2,3 |
|    | <ul> <li>New concepts of the recycling-oriented construction, to final<br/>disposal vessels/platforms</li> </ul>  | FID                 | FID              | ID                  | ID                      | 1              |
|    | Intelligent/innovative interacting components   | FID                 | FID              | ID                  | ID                      | I              |
|    | Human computer interaction and Augmented Reality  | FID                 | FID              | ID                  | ID                      | I              |
| 5. | Safety and Security   |                     |                  |                     |                         |                |
|    | <ul> <li>Individual safety concepts harmonized with navigational requirements</li> </ul>  | FID                 | FID              | ID                  | ID                      | 1              |
|    | Intelligent predictive maintenance systems  | FID                 | FID              | ID                  | ID                      | l              |
|    | • ICT tools for monitoring and optimization of maritime operations (e.g. routing following best weather conditions)   | FID                 | FID              | ID                  | ID                      | I              |
|    | Hinterland connection through inland waterways  | -                   | -                | ID                  | ID                      | I              |
|    | Early warning and accident management systems   | FID                 | FID              | ID                  | ID                      | I              |
|    | Evacuation and rescue concepts  | FID                 | FID              | ID                  | ID                      | I              |
|    | Decision support systems  | FID                 | FID              | ID                  | ID                      | 1              |
|    | <ul> <li>Improve operations such as dynamic positioning systems,<br/>docking and mooring systems, automation of processes,<br/>optimized routing, handling of goods, subsea intervention</li> </ul> | FID                 | FID              | ID                  | ID                      | I              |
|    | Budget (million euro)   | 0.1                 | 2.0              | 0.6                 | 0.5                     | 2.0            |

#### **Clarifications:**

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**5.** Universities

6. Other

The initials "FID" are used to indicate the general subjects of an agency's programme:

**F**: Fundamental research

I: Industrial research

**D**: Experimental development

For further information and additional descriptions of the supported types of R&D for a specific funding agency, please read carefully the respective National Guidelines.