



# **Outline of the ARIES proof-of-concept – criteria and requirements for the successful project**

**Electron beam treatment of marine diesel exhaust gases -  
Consortium meeting**

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**Genova, 1 March 2018**

# The main ideas

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- To proof that this technology can be applied to the marine diesel engine and delivers necessary results
- To show technology in action – it works and it delivers
- Proof of concept: development of the full-size on-shore prototype for the purification of the ship exhaust gases by using electron accelerator
- This is joint industry – academia project (JIP), involving all concerned parties
- Potentially missing: scrubber manufacturers, engine manufacturers?

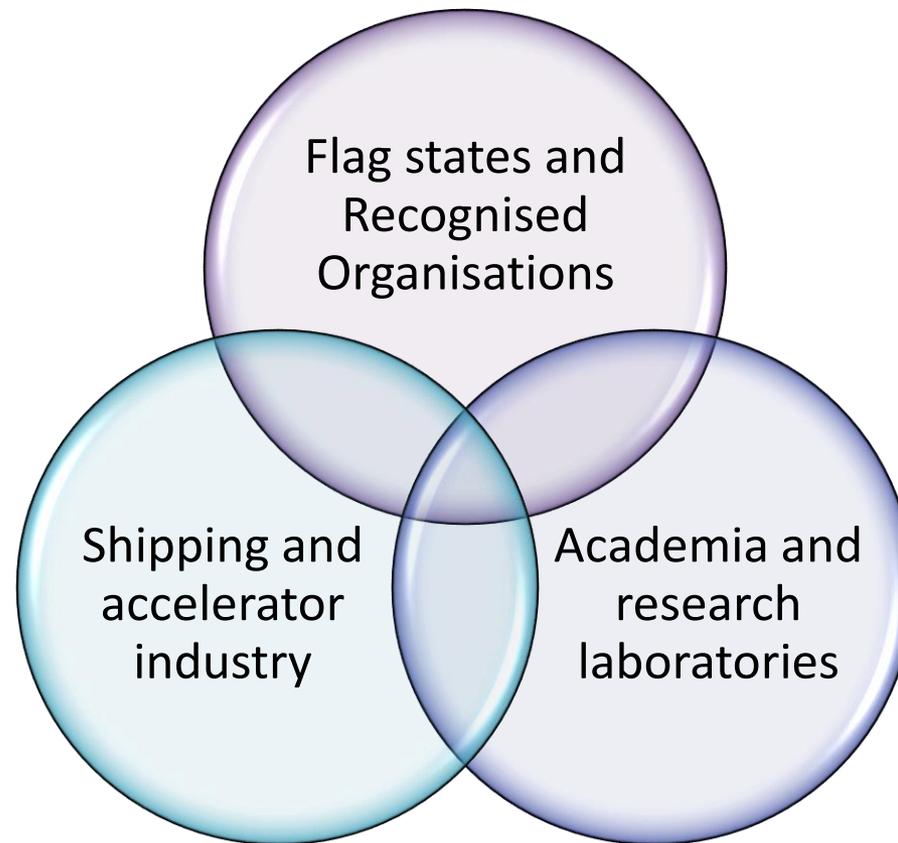
# The main ideas

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- To develop integration solutions with other ship systems
- To proof financial feasibility
- In parallel to start work with full size ship system. So, when the on-shore system is working, the on-board work can commence immediately.
- To engage and promote this idea with all stakeholders -> Class, IMO, EMSA, US CG etc.
- To involve EC, and pave the road for much bigger full scale multi-ship project co-financed by EU

# Multidisciplinary and multi-industry project

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Idea is to have at least two representatives from each competence/segment

# Aims

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- to provide financial support at the very early or pre-seed stage of turning research outputs into a proposition that **has impact**, innovation and technology transfer potential
- The idea or concept must have a clear potential for **commercial application** and sometimes a background **patent** will have been filed
- should include an explanation of how they plan to **manage IP** in the project
- will make the innovation and **technology transfer potential evident** to the market

# Money

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- activities to enable the development and examination of a novel concept or a product to establish its **commercial feasibility and scientific and technical merit**
- Undertaking further **scientific and technical** development of an idea
- Identifying potential licensees or opportunities for joint ventures
- applications which have secured **funding from elsewhere** e.g. host institution, will be looked upon favorably
- **Funding from third parties** (non-ARIES members) must be additional to the funds requested

# Background and Aim

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- What is the funded research that will form the basis of this project?
- What is the aim of this application?
- Who will benefit from this project and subsequent commercialisation?

# Technical Summary

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- Provide a detailed account of the **current status of the technology** you are proposing and the **plan for development**.
- The summary should provide sufficient **detail** for the Evaluation Panel to assess fully the **technical aspects** of the proposed project.

# Business Plan

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- Describe how you will investigate the **development of a business plan**, which will include a route to market.
- Describe the commercial opportunity, supported by **market data**, and the predicted investment and mechanism required **post-project** to take forward commercialisation.
- This should also include a summary of the current **IP position**.

# Work Plan and Risk Analysis

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- Detail:
  - specific work packages,
  - assigning responsibility between partners
- Applicants should show that they have identified **risks** and developed alternative strategies to **mitigate** these
- The applicants should consider both technical, programmatic and, where relevant, commercial **risks**.

# Resources (budget)

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- State the resources requested by the applicants and provide justification for them
  - 50-60 K Euro from the ARIES budget
- + each partner contributes 10K Euro. Of which up-to 5K might be in kind (e.g. working time, hardware, etc.) and other 5K in cash

# Project Deliverables and Milestones to verify implementation

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- Identify what the **direct outputs** will be at the end of this grant (please be specific).
- What we can realistically do? No false promises.

# Letters of Support

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Letters of support can be included from other relevant parties not directly involved in the project but who support the objectives, for example, potential end users. Letters should:

- Be on **headed paper** and signed by a senior member of staff or director (the capacity in which the supporter is signing the letter should be stated) or an email with full contact details.
- Be dated within six months of submission
- Detail their interest and involvement in the project in terms of **specific objectives** and desired **outcomes**
- Provide some evidence (making reference to the **Business Plan**) of the projected market size, customers and sales (for industries)
- Describe (making reference to the **Business Plan**) how the company could commercialise the technology beyond the project (for industries)

# Collaboration Agreements

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- After the project is selected for funding, the leading organization will be asked to sign a Collaboration Agreement with CERN
- The Collaboration Agreement will be prepared by the ARIES Coordination Office and will define the **project schedule, the deliverables** and the payment calendar of the approved project



**We have less than one month  
for this...**