



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

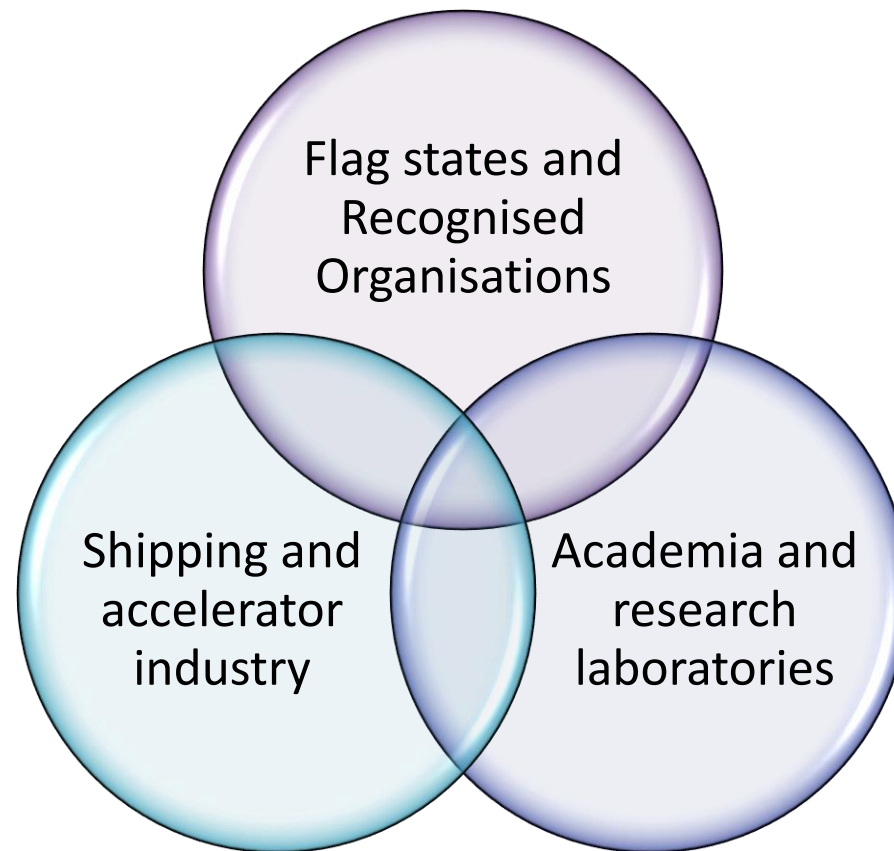
The main ideas

- 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

- 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



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

Aims

- 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

- 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

- 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

- 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

- 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

- 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)

- 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

- 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

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

- 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...**