

# Project ELINN

ELectric INNovation for emission free Sea Rescue boats

Project Partners:



**SJÖRÄDDNINGS  
SÄLLSKAPET**



**ZPARQ**

**MICROPOWER  
GROUP**



Your Maritime  
Solution Partner

**ASTON  
HARALD**  
COMPOSITE



Project funded by:



+ the project partners

# SSPA Sweden AB.

Independent maritime consultancy since 1940



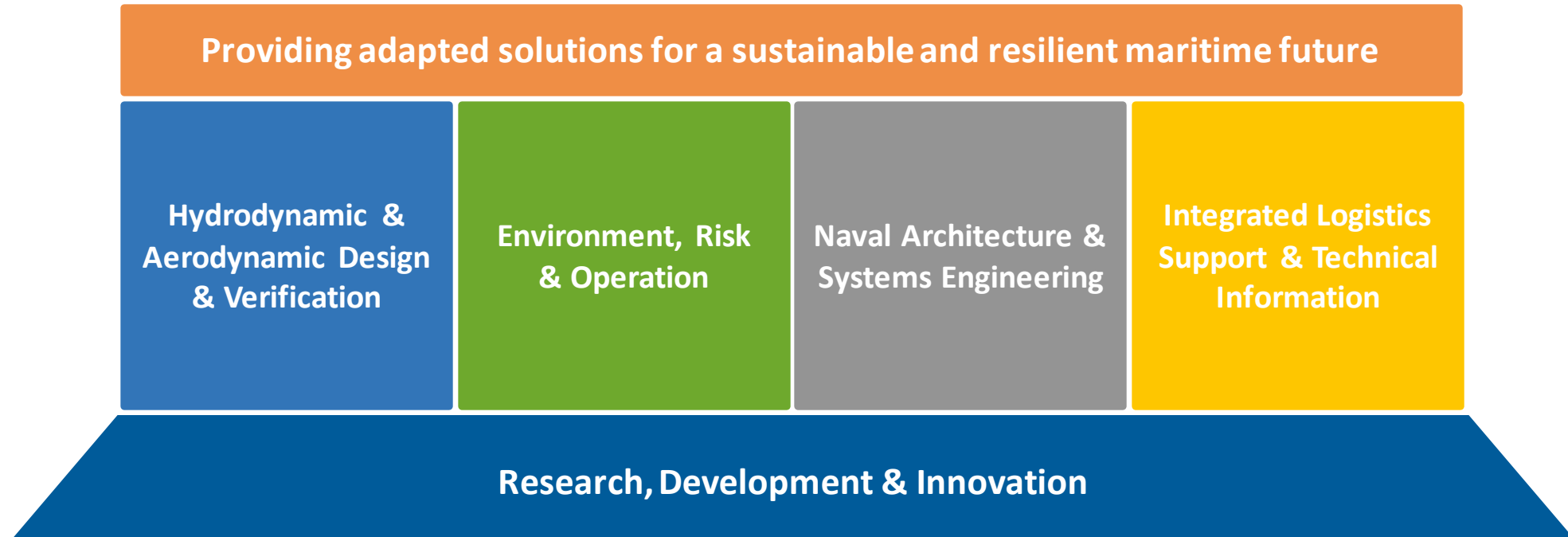
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# SSPA's Vision

Developing a sustainable and resilient maritime future



# SSPA's Mission

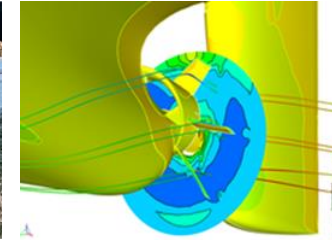


- Independent expertise with holistic and long-term focus
- Bridge between theory and practical implementation
- Contributing to a safer, more energy efficient and sustainable maritime industry

# Service Portfolio

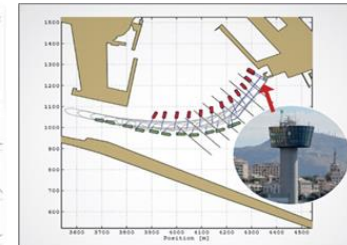
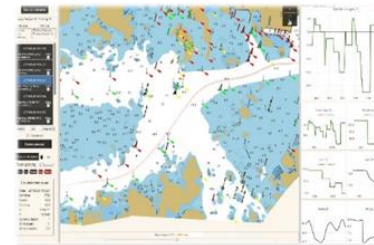
Hydrodynamic &  
Aerodynamic  
Design  
& Verification

Involved in the hydrodynamic  
design and verification of more than  
8000 hull forms



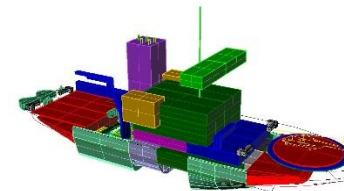
Environment,  
Risk  
& Operation

Identifying and analyzing maritime  
operations in relation to society



Naval  
Architecture &  
Systems  
Engineering

From feasibility study  
to operational system



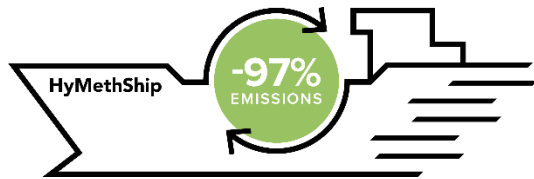
ILS & Technical  
Information

Accurate technical information  
enhances safety and reduces the  
total life-cycle cost



# Research, Development & Innovation Portfolio

Development of new methods, tools, applications and knowledge through research for a resilient future. Over 90 European research projects completed since 1997.



Wind Powered Vehicle Carrier



Research, Development & Innovation

# Selection of our Clients



# SSPA Sweden AB

- 95 dedicated employees
- Worldwide network and partnership



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# The big problem for emission-free Sea rescue operations: **Range and Speed – at the same time**

In a electric sea rescue boat, there will be a moment 22: longer range and high speed requires more batteries



↓  
which gives a heavy boat that requires more energy to move quickly

↓  
which requires even more batteries

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# Reduce the need for energy and power!

Lighter boat!



Less need for power



Smaller battery or Longer operational range



Shorter charging times, need for smaller chargers



Lower overall costs



Fulfillment of operational profile with electric propulsion



Faster transformation to emission free boats

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# Mission profile:

## Emission free:

Free from local greenhouse gas emissions during operation

Reduce all other emissions as much as possible (exhaust fumes, sound, wake)

## Operation (based on all emergency operations during last years):

- Payload abt. 520 kg; 2-4 crew, fuel, supply
- High pace, out to rescue site: **15 nm @ 35 knop**
- Towing: **15 nm @ 5 knots**
- Take-me-home: **5 nm @ most economical speed**
- Manoeuvrability: excellent performance in low speed during rescue operation
- Weather cannot stop us!



➡ We need to build something that is unavailable in the market today

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# Change of mindset:

The boat should be the preferable choice to its fossil-fuelled siblings!

To succeed, the rescue boat must have clear advantages:



- Fulfillment of operational profile, with margin
- Being easy to manoeuvre at low speed
- Providing a smoother, silent ride when driving faster and during Search & Rescue
- Maintenance time is also an important aspect
- No surprises! Boat handling needs to be accessible and easy



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# What do we need?

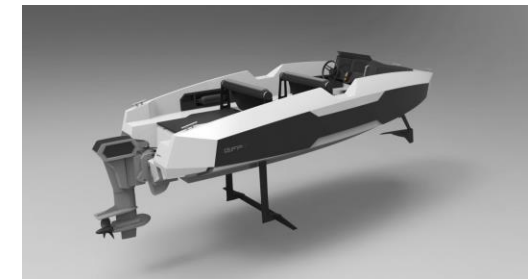
Super light boat to enable electric propulsion



Innovative propulsion system with higher efficiency electric motor and batteries



Foils – reduce energy demand at high speed  
> 50% (Fully retractable of course for rescue missions)

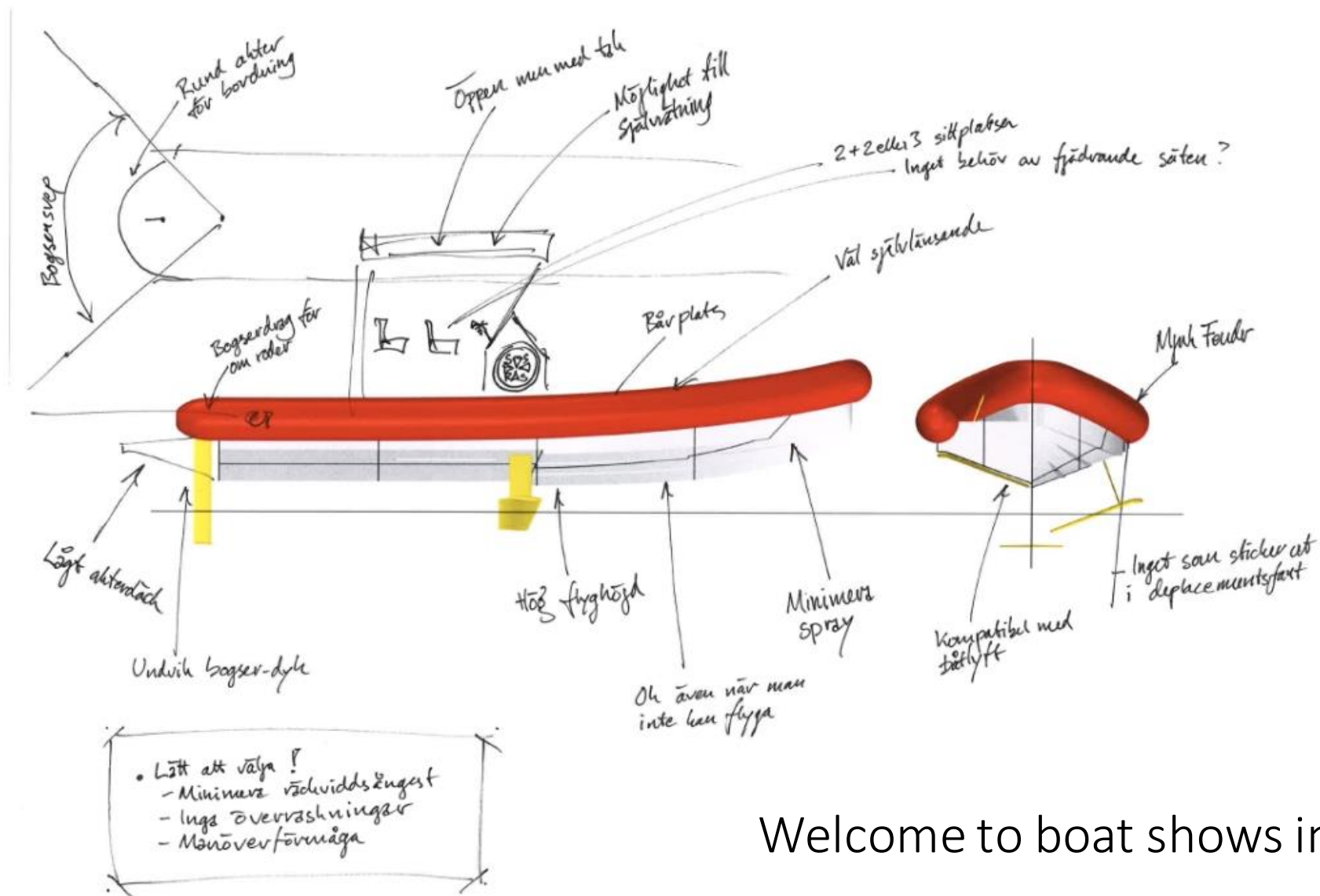


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# When is the Emission free rescue boat ready?



Welcome to boat shows in Sweden during 2023

# Project ELINN

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## Questions?

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