

# NEOTEC 2020 Program

## Virtual Intelligent Design Assistant (VIDA)

Webinar: "Ayudas para emprender e innovar en tiempos de COVID-19"

Francis Hueber, General Manager and co-Founder

CAPONNETTO HUEBER S.L.

## NEOTEC 2020 - Virtual Intelligent Design Assistant

- Company Presentation
- R&D Project – VIDA
- NEOTEC Experience

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# Caponnetto Hueber S.L. Presentation

DESIGN

INNOVATION

COMPUTATIONAL FLUID DYNAMICS (CFD)

for YACHTS

and the MARINE INDUSTRY

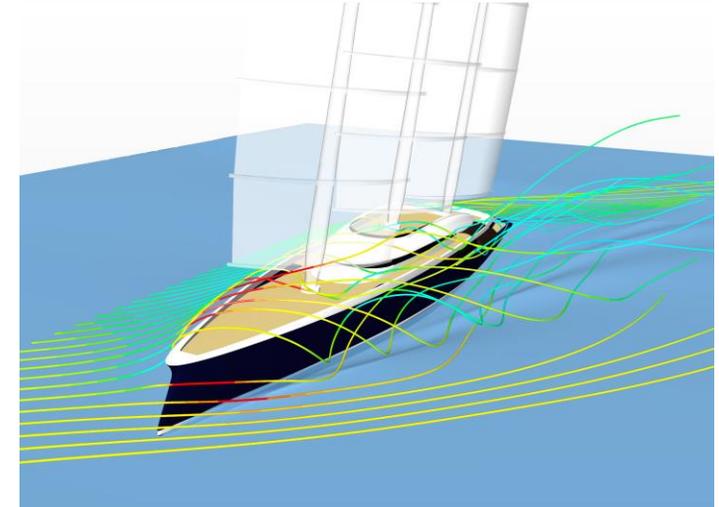
# Background, Co-Founders and Team

- Mario Caponnetto (ITA) : Technical Director
- Francis Hueber (FRA) : General Manager
  
- 7 engineers (ESP, ITA, FRA, POR, USA):
  - Naval Engineers
  - Aeronautics Engineers
  - Developers
  
- Partnerships
  - SIEMENS : CFD Codes
  - CRS4 : HPC
  
- Located in “La Marina de Valencia”
- Founded in 2017



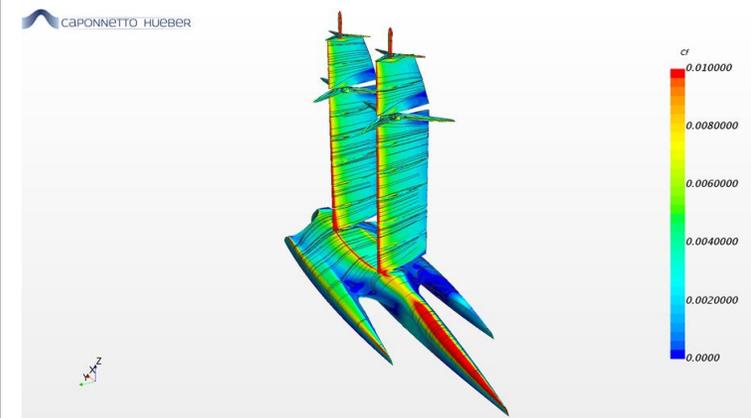
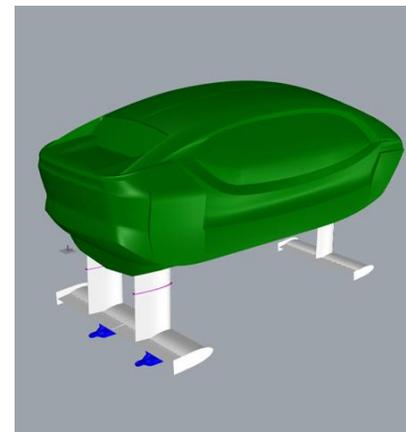
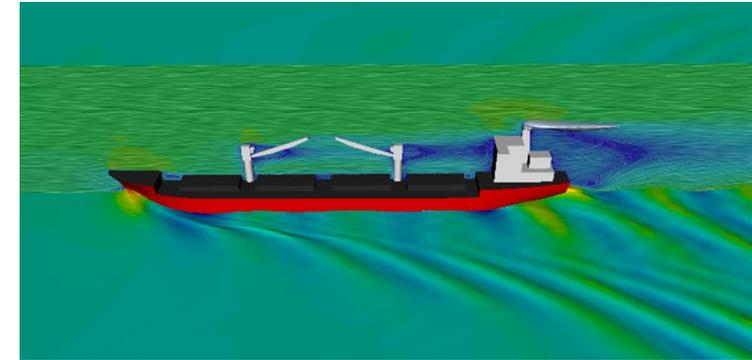
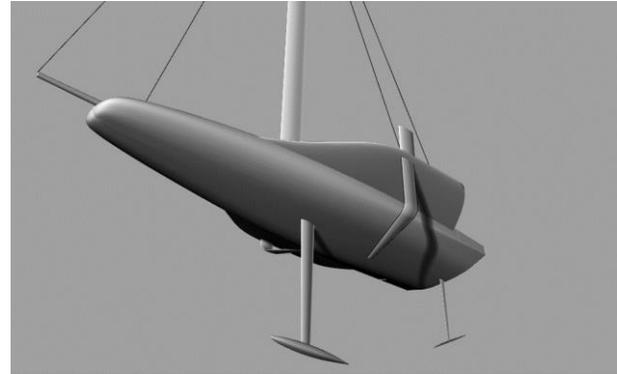
# Company Expertise

- Creativity, Innovation and Design : IDEAS  
⇒ Conceptual & Efficient Design
- Fluid Dynamics : KNOWLEDGE
- Numerical Simulation (CFD) : TOOLS  
=> Tools & Methodologies
- R&D : INVESTIGATION
- America's Cup Winners in 2010 and 2013



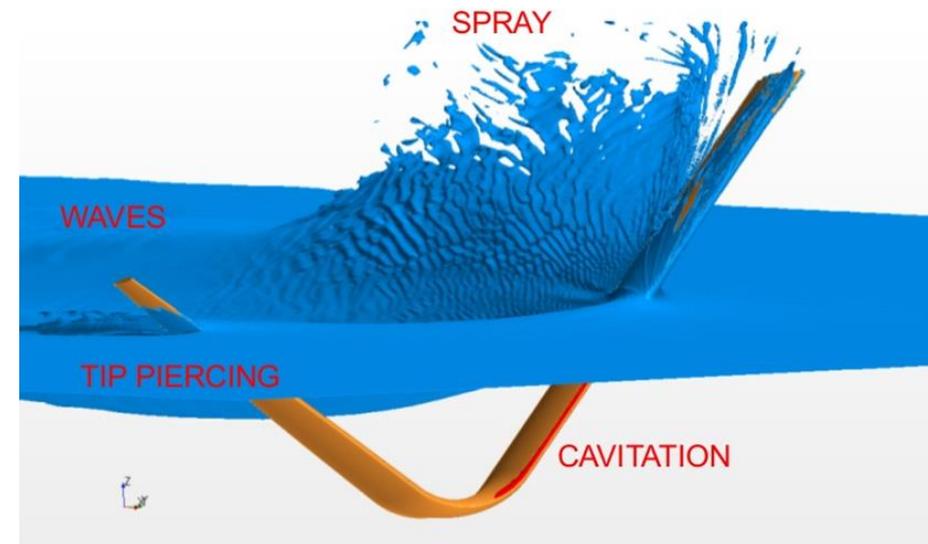
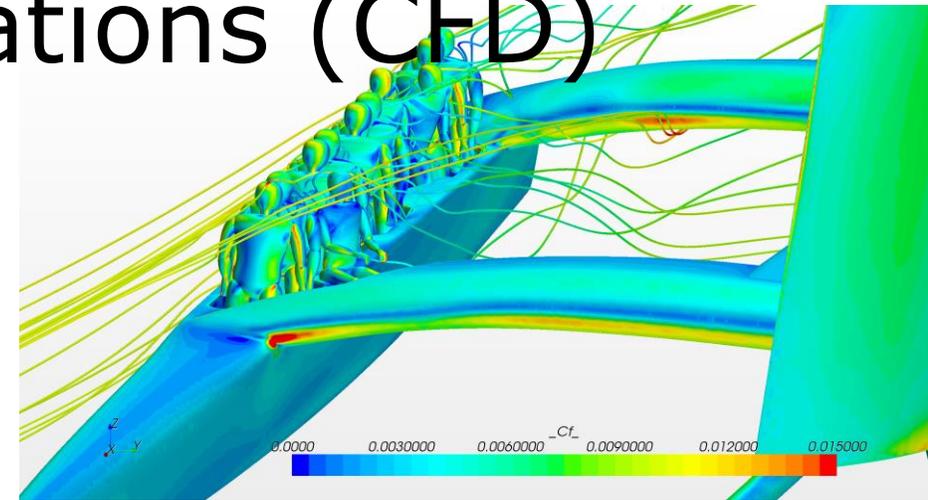
# Services – Efficient Design

- Racing Yachts
- Flying Yachts
- Motor Yachts
- Efficiency for Shipping Industry
- Propulsion (Sails, propellers, etc...)



# Services – Numerical Simulations (CFD)

- Computational Fluid Dynamics (CFD)
  - Tools and methodologies
  - Analysis
- Optimization
  - Shapes optimization
- Fluid Structure Interaction (FSI)
  - CFD + FEA



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- NEOTEC Experience

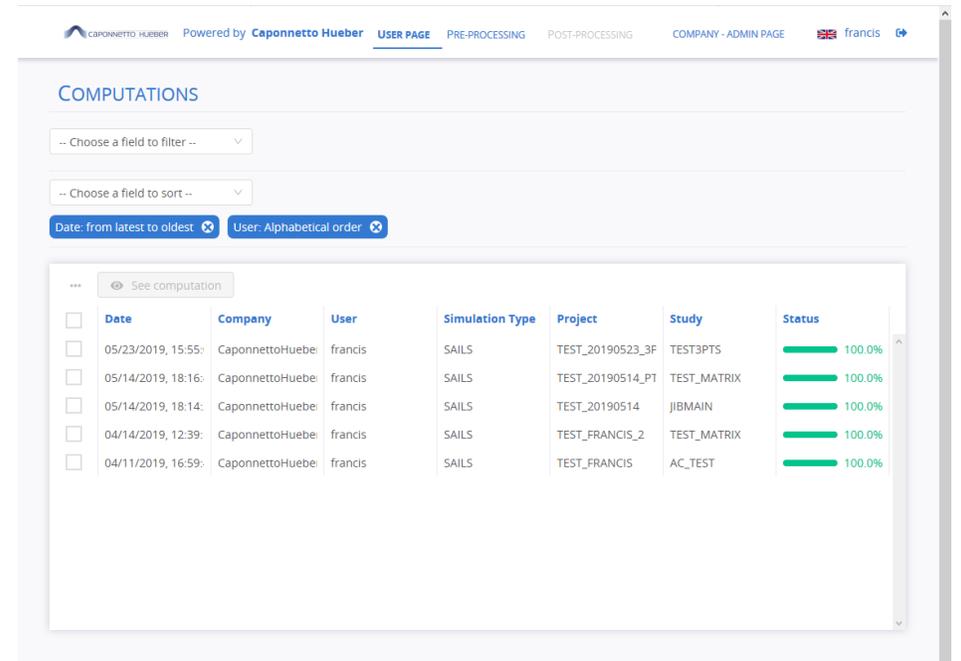
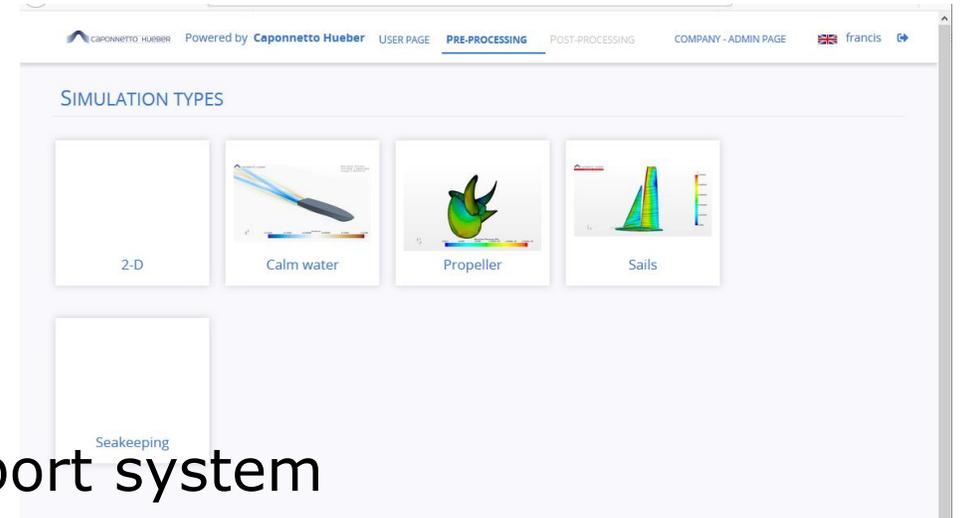
# VIDA – Origin Of the Project

- We have tools and knowledge to improve design and overall efficiency of complex systems
- Maritime Transportation has a very negative impact on the environment
- Enable the community to use state of the arts tools
  - Diversification and consolidation
    - From Service to Product / Service
    - From Maritime industry to Transportation & Energy industry

# VIDA – Objectives

- VIDA Platform Sum-up

- Intelligent design decisions-making support system
- Cloud based (modular and scalable)
  
- Test your design
- Improve your design
- Optimize your design
- Outperform your competitors
- More sustainable industry



# VIDA – Virtual Intelligent Design Assistant

- Phase 1. Automatic Performance Prediction WebPortal
- Phase 2. Data Base
- Phase 3. Artificial Intelligence
- Phase 4. Real Time Performance Prediction
- Phase 5. Intelligent Design Assistant

# VIDA – From Service to Product

- As pioneers in the field of CFD, we have to lead the development of future technologies, tools and methodologies...
- From service, done by expert engineers
- .... To product, available to non-experts

# VIDA – Resources and Needs

- Fluid dynamics
- Numerical Simulations (CFD)
- Naval architecture and design
- Optimization
- Database
- Machine Learning & AI
- Web

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- **NEOTEC Experience**

# NEOTEC – Convocatoria 2018

- 4 weeks to present the project...
- After 2 weeks, new focus >> disruptive innovation
- Almost got there...
  - Details can make a difference

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- Experience from NEOTEC 2018 and CREATEC 2019
- Feedback from both Program experts
- CEEI (Isidro Campo)
- Implementation of the dev. done during the year
  - Technical part refined
  - Market and Financial analysis refined

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# NEOTEC

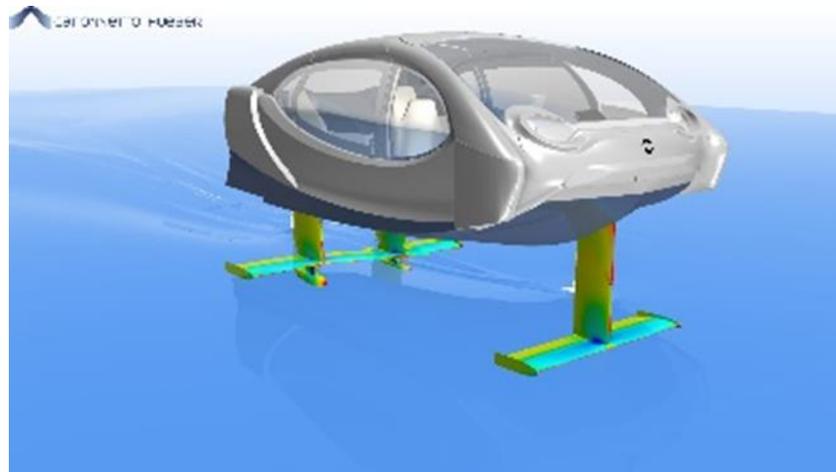
- The idea = “disruptive innovation”
- Define and redefine your Project
- The Call
  - Presentation of the company
  - Technological challenge
  - Disruptive
  - Company HR and structure
  - Market study
  - Financial projection
- Project Follow up

# NEOTEC – Call

- Difficulties:
  - Market Survey
  - Financial Projections
  - Time consuming to prepare for the call
  - Initial Fund: need 30%
  - ~~Video~~
  
- Anticipate:
  - Need to have the project 70% ready before the start of the call
  - Need to have the capacity to invest
  - Need to be structured as a company

# NEOTEC – Tips & Recommendations

- Be innovative
- Be disruptive
- Be a game changer
- Emphasize the competitive and commercial potential



# NEOTEC – Tips & Recommendations

- Be mature as a company
- Work with R&D program experts
- Listen to feedback (CDTI experts, R&D experts, companies who entered the program, ...)
- Be involved as a business owner as no-one understand better your project
- Be ready and structured to be able to lead such a project

# NEOTEC – Next Steps

- NEOTEC will be our POC (Proof Of Concept)
- Towards EU R&D Program
- Investors to Expand
- Technical Partnerships
- Commercial Emphasis



Caponnetto Hueber

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INNOVATION

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VIRTUAL INTELLIGENT DESIGN ASSISTANT (VIDA)