RINA

RINACube
FOC & OPTIMUM

RINA CUBE

RINA has created RINACube, our open platform for digitally augmented services. RINACube provides Customers with the most complete level of services and a holistic view of the shipping market through a single sign on. The platform is open to integrate data from heterogeneous sources and is capable of machine learning driven powerful analytics to correlate data and provide valuable business insight RINA technical competence, attention to quality, focus on innovation and new technologies in the shipping market give us the possibility to support your business and perfectly complement the knowledge and expertise of your employees. RINACube already hosts a set of marine applications and many others will follow in the next months.
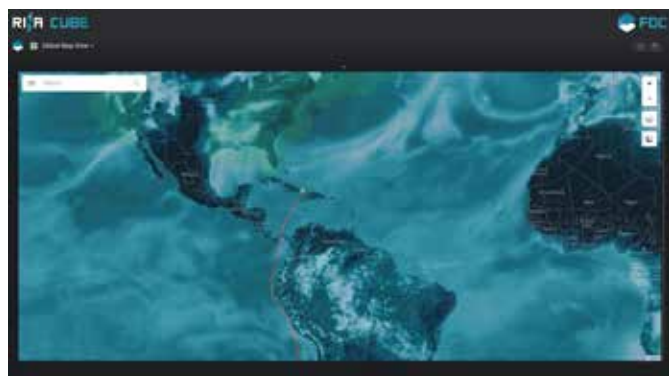
THE REAL VALUE OF YOUR DATA

- **RINACube extracts value from the data already available** and use it to allow companies to become more efficient and to renew their offer

- **Ownership of data** stored in and elaborated within our platform will stay with you, and you will have **the complete control to data access.** Data **security is embedded within the platform**

- All data collected from the asset do not sit still on board of the vessel any longer. They **move to shore** where full control of the asset lifecycle and performance can be taken remotely.

SURF THE DIGITAL WAVE

- RINACube architecture allows collecting and managing huge amount of data safely, quickly and with flexibility. The **non-relational database** and the **cutting edge cloud based technology** are able **to scale on your business challenges** enabling you to easily grab new market opportunities

- Applications hosted on RINACube will soon be increased in order to tackle also **maintenance, environmental** and **regulation compliance** issues.

WHAT DO YOU NEED TO REMOTELY MONITOR YOUR FLEET EFFECTIVELY?

- **Fleet Operation Center (FOC) and Performance Management (OPTIMUM)** are the first applications totally designed and implemented by us available on RINACube digital platform. **Smart alerts, data fusion, custom dashboard layouts bring operational fleet efficiency and safety to the next level.**

FOC

What is our Fleet Operation Center?

- Fleet Operation Center offers the opportunity to **increase safety and operational efficiency** of your fleet anywhere, anytime; with a combination of hardware equipment, software packages and fleet intelligence you will be able to provide support to your fleet **from ashore** in the most effective way

- Our technology combines the increased availability of affordable satellite communication solutions, tracking technologies and data-analysis platforms, **to enable real-time information sharing** between ships and specialized onshore support teams.

How are data collected to use FOC?

- The real value of FOC lies in the use of **big data**. It is therefore necessary to install a data collector on board of each ship

- Number of signals transferred ashore and applied sampling frequencies are tuned based on the **available communication channel** and on the customers purposes and requirements.

How FOC is able to impact on safety levels of your fleet?

- Use our powerful GEOserver joined with the alert engine to **minimize potential hazardous situations**, derive quick insights on corridors, harbor maneuvering plans actually followed by your ships and enrich the information with our interactive weather map layers.

OPTIMUM

What is our OPTIMUM?

- OPTIMUM is the **performance management tool** available on RINACube.
  Through automatic data acquisition associated with powerful analytics and reporting, OPTIMUM provides indications on **how to maximize your business potential**.
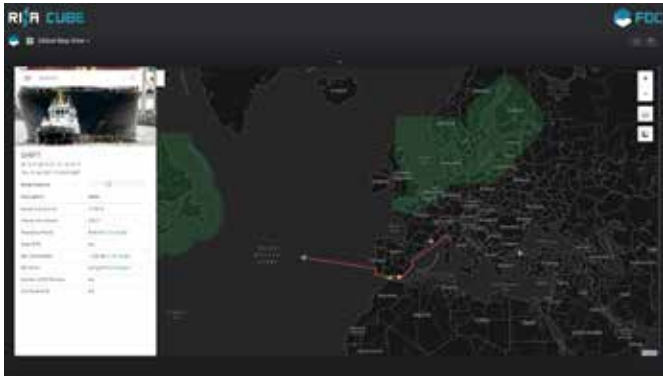
How are data collected to use OPTIMUM?

- OPTIMUM can be either fed by **big data through automatic data acquisition or though manual reporting**

- However, the **investment cost** to adapt a whole fleet for big data acquisition may not be negligible for shipping companies. Many ships are already at an age at which big investments are economically not convenient. **New sensors and an automatic acquisition system on board** are often only feasible for new buildings or young ships rather than old ones

- With OPTIMUM shipping companies can decide **to install a permanent monitoring system on board** newer and better-equipped vessels and/or to **stay with manual reporting on older vessels** or those not equipped with sensors.

How OPTIMUM is able to improve performance levels of your fleet?

- Exploit data with machine learning to create **hydrodynamic models** of the ships, **evaluate hull degradation** due to fouling or **detect possible critical events** that reduce propulsion efficiency

- **Trim and route optimization** are embedded into the system real time dashboards and duly supported by our team of experts. Our people can carry out **CFD simulations** and assist ship-owners technical departments with custom detailed analysis

- **Analyse dry-dock payback period** to evaluate the real impact of each refitting action on the ships' performance

- **Comply with reporting regulations** collecting the data needed and cross-checking for data gaps plausibility and reliability.

OUR SOFTWARE = YOUR DASHBOARD

Using FOC or OPTIMUM you will have a **full tailor-made solution.**

- **Basic users** with the standard configuration have an easy tool to evaluate fleet performance, benchmark-refitting actions carried out in dry dock and compliance with regulations. They will be able to set alerts to minimize potential hazardous situation

- **Advanced users** have the power to shape the software on their needs.

You will be provided with flexible tools to develop your own analytics:

- **MY LAYOUTS**: Build your own analytical dashboards with maps, scatters, histograms, trends, bar charts, numerical indicators (tile), tables. Each user can build, delete and rename his own pages, while Power Users are allowed to publish their layouts to normal users

- **MY FILTERS**: Save your set of filters and simply apply them every time you need them

- **MY ANALYSIS**: Combine MY LAYOUTS and MY FILTERS to save your Analysis and publish it to other users! Easily share the results of a refitting action or the snapshot of a particular situation and facilitate teamwork among Users

- **MY REPORTS**: Reduce paperwork on board and configure your own reports. Trigger the frequency to automatically generate and distribute them to all departments or have them available for download in RINA Cube-PM portal

- **MY ALERTS**: Continuous human control on a whole fleet is impossible. Boost your possibilities and enhance prompt intervention with different alerts that can be sent both ashore and on board. i.e. control of diesel engines usage, maximum allowed speed, sensors status, fuel in use inside ECA areas

- **MY DATA**: We are not jealous of your data. Extract data from our system every time is needed! Use our API or extract files in different formats like csv or Excel.