

Galileo Application Days

Blue Thread

Navigation Technology for marine applications

Alessandro Cantore
Managing Director

BLUE  **THREAD**
NAVIGATION TECHNOLOGY



Blue Thread develops navigation solutions for marine sector, combining latest satellite and connectivity technologies, to fulfill the reliability and safety need of marine sector

Founded June 2009, based in Rome, Italy

ESA Technology Transfer ongoing



Company profile

Founded: June 2009

Main Customers:

- *Providers of onboard instrumentation for ships (Nautisat), and small boats*
- *Maritime Authorities, Service Providers in marine sector*



Sales: orders for **200K€ in** 2010

Market Opportunities:

- Modernization trend in marine, high-potential market for satellite technology
- Increasing interest for instrumental navigation in leisure yachting

Blue Thread competitive factors:

- focus on target segment (leisure yachting, torustic seaport, marine reserves)
- High added value of innovation and R&D (ESA support)
- Innovative and efficient solutions

Profitability:

- Scale and competitive cost of components





esa business incubation
technology transfer programme



European Space Agency

ESA	Technology Transfer Programme	Business Incubation
		05-Mar-2010
		More information
		Blue Thread brochures
		Members and Alumni
		Incubatees at ESA BIC Italy

Contents

- Project: Space Compass
- From space to industry
- ESA Business Incubation
- Entrepreneurs

Technology Transfer Programme Office

- Mission ▶
- Benefits ▶
- Initiatives ▶

Business with Technology Transfer

- Technology Transfer Process ▶
- Technology Transfer Broker Network ▶
- National Technology Transfer Initiatives ▶
- Technology Transfer Opportunities ▶

Business with the Incubator

- Mission ▶
- Locations ▶
- How to apply ▶

Business with the Fund

- European Special Applications Fund ▶

ESA Business Incubation Centre Italy

Company: Blue Thread



Blue Thread is a start-up company that develops navigation solutions for the nautical sector, integrating the most advanced satellite technologies with state of the art sensing, connectivity and monitoring techniques.

The company is positioning itself not only as a product supplier on the niche market for maritime navigation systems but also as a solution integrator, contributing to develop and enable new applications that service providers can offer on specific markets.

The company detains specific technical expertise in location services and in particular in hybrid positioning system, using combination of different technologies in order to obtain higher accuracy and increased reliability.

Project: Space Compass



Blue Thread's Space Compass exploits the introduction of the new satellite navigation systems (EGNOS and Galileo to realize a next-generation compass to achieve increased positioning accuracy and better reliability on the associated services than existing magnetic compass and/or GPS-



Blue Thread brochures

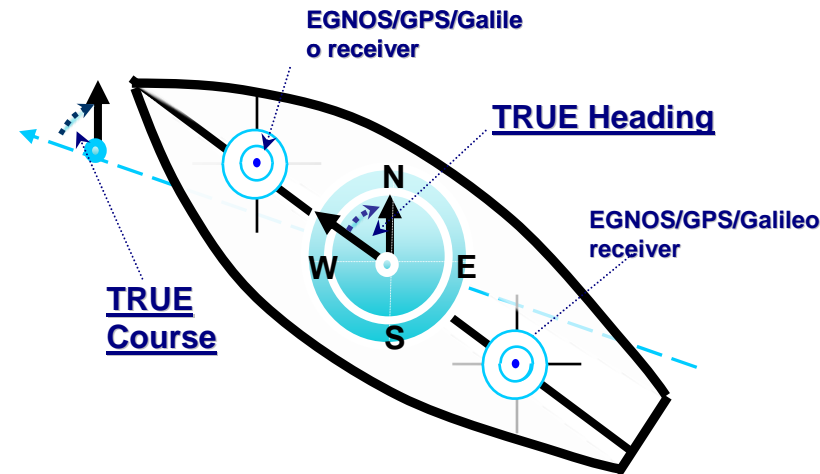
- Blue Thread (pdf)
- Space Compass and Space Telepass (pdf)

Members and Alumni

- Incubatees at ESA BIC Italy

Space Compass

Next-Generation Compass based on Satellite Technology



SPACE COMPASS concept

- **All-in-one** for measuring of fundamental navigation parameters
Heading, Position, Speed Over Ground, True Course and Rate of Turn
- **Fast installation & commissioning**
- **Avoidance of periodic maintenance** (no need of calibration/compensation procedures)
- **No effect of magnetic declination/deviation**
(the declination error prevents to rely on magnetic devices at Northern latitudes; in the Island sea error is~ 30°)
- **Stylish Design**, suitable for any class of boats

- Enhanced Automatic Piloting
- Reference for other on-board instrumentation



Marine Telepass

Applications:

- Controlled Access to seaports, marine reserves, mooring buoys parks
- Natural environmental monitoring and safeguard
- Off-Shore Fleet management (chartering, sailing competitions,..)



Features:

- Satellite based AIS (Automatic Identification System)
- Interactive data exchange
- Alarming, reporting (Weather, environment)
- Flexibility to fulfil specific applications requirements



Customers & Commercial Partners:

- Maritime Service/solution providers
- Port Authorities
- Mooring buoys parks, and marine reserve management

Data Integration of Space Compass & Marine Telepass, Navigation and Observation data

new Services enabled (on scalable integrate platform):

- Off-shore Fleet monitoring

tracking vessels (improved AIS), charterists, sport races, alarm/warning systems (**Safety of life**)

- Port operations

Booking and Automatic tolling, Assisted piloting up to the spot, Assisted manoeuvring

- Marine Reserves

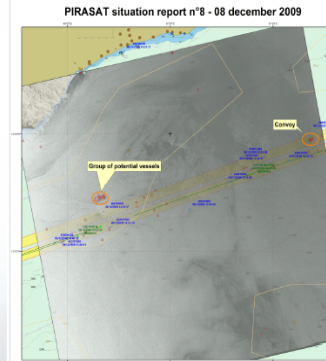
Access control, statistics, Coastal and off-shore environment monitoring, weather, life observations, pollution

Unauthorised Vessels



European Maritime Safety Agency

6. Integrated maritime surveillance



Satellite monitoring of merchant vessels integrated in CSN (+ LRIT + sat-AIS)

Integrated approach improves efficiency

Single point of access (like CSN) will provide a clear and complete maritime picture:

- Combined information
 - ✓ Oil spill (SAR)
 - ✓ Vessel detection (SAR)
 - ✓ Vessel information (SafeSeaNet/AIS + LRIT + Satellite AIS)
- Correlation and filling gaps of vessel information data
- Combination of pollution with potential polluters

Market scenario

- **High expectations and investments for European Satellite Technology** (EGNOS, Galileo)
- **Maritime sector is a consistent segment**, with highly specific requirements (not easily penetrable from mass-market vendors)
- **Many areas with high diffusion of coastal navigation** (Italy, French, Spain, Scandinavia, Croatia, Black sea,..)

⇒ Market opportunities to seize

Blue–Thread strategy:

- Leverage the prestigious partnerships in place (ESA, Tor Vergata University,..)
 - ⇒ **Technology leadership**
- Strong Focus on the target segment
 - ⇒ **Understand the customers**
- Enable innovative services
 - ⇒ **Establish partnerships with international partners**
- Exploit the scalability and add high R&D value
 - ⇒ **Evidence profitability**

Summary

To seize this opportunity **Blue-Thread intends to:**

- ❑ Establish **industrial partnerships**, to enforce commercial network.
- ❑ Involve **international partners** (financial and industrial)
- ❑ Complement the investment with **own capital**



The investment (÷200 K€) for 2010 will be finalized:

- R&D [~ 40%]
- Commercial plan and distribution [~ 30%]
- Product Validation, certification [~ 15%]
- Brand promotion and internazionalization [~ 15%]

Profitability forecast:

- ❖ Break even ~ 18 months
- ❖ Gross margins ~ 30%



www.blue-thread.it

Alessandro Cantore, Managing Director
alessandro.cantore@blue-thread.it