

Shaping the Future of Maritime Technologies through Innovative Education

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Autonomy, AI and space-based sensing are reshaping shipping, port operations and maritime security.

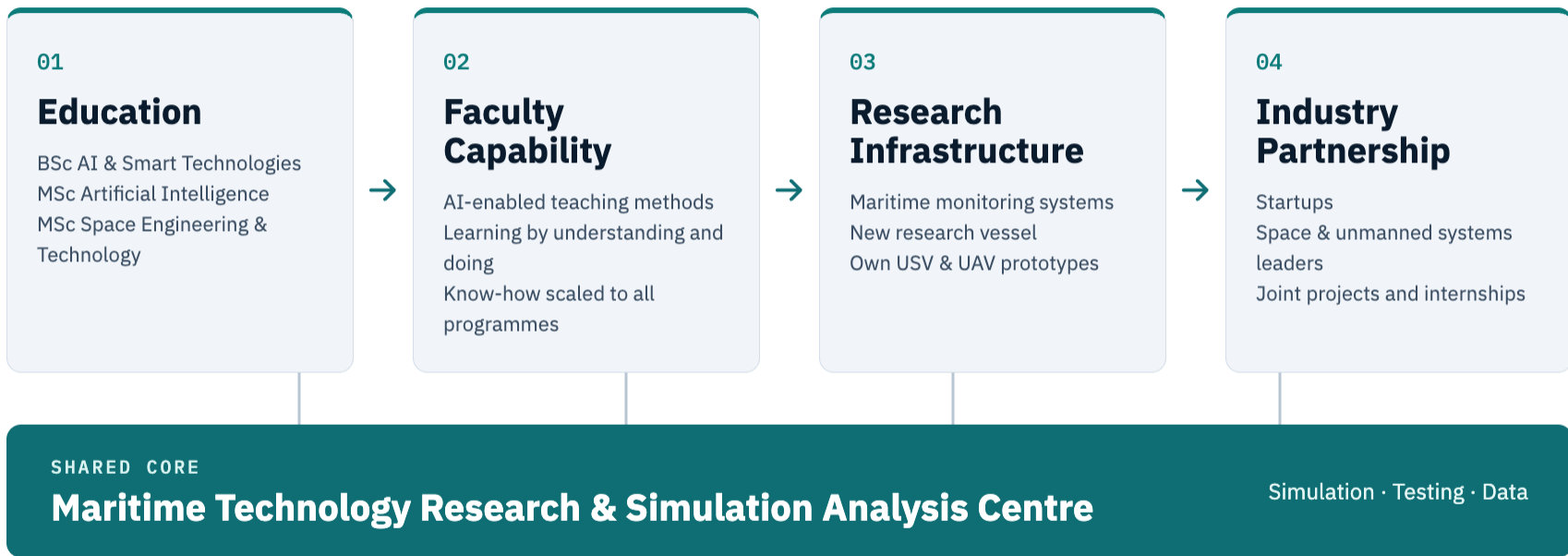
The Black Sea is a strategic and contested environment that needs persistent awareness.

The gap is not the technology but the people who can operate, integrate and create it.

The Challenge: Maritime Is Becoming a Data-and-Autonomy Domain



One Ecosystem, Four Pillars



— The synergy between the pillars **is** the innovation.

New Programmes for New Technologies

BSc AI & Smart Technologies	MSc Artificial Intelligence	MSc Space Engineering & Technology
ML, computer vision, NLP, smart devices, software engineering	1 year, part-time; deep learning, LLMs, XAI, AI ethics & regulation	1 year, full-time, 75 ECTS; spacecraft, orbital mechanics, satcom, sensor payloads

Sea – Air – Space – AI: one pipeline

Practice-based learning scales across the academy

LEARNING ENGINE

- 1 **Projects on real maritime data**
Cases turn theory into operational judgement
- 2 **AI as a learning tool**
Tutoring, coding, analysis and scenarios
- 3 **AI literacy and explainable AI**
Confident, responsible use across disciplines
- 4 **Simulators bridge to operations**
Safe practice before real-world deployment

ENABLES



SCALE PATHWAY

01 Faculty first
Build confidence and reusable teaching practice

02 Across specialties
Transfer to navigation, engineering and every programme

03 Institutional practice
Shared tools and the distance-learning platform

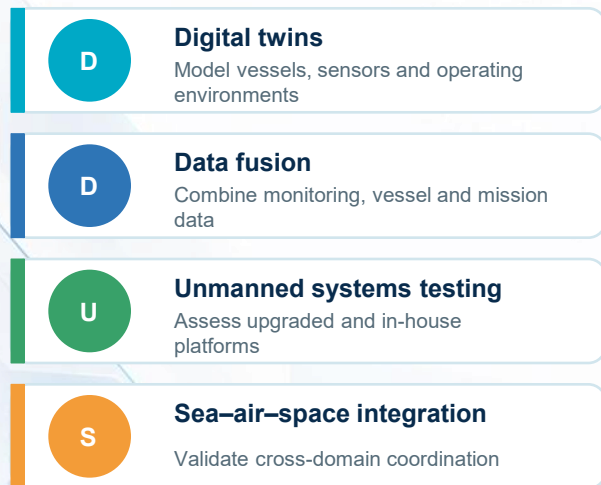
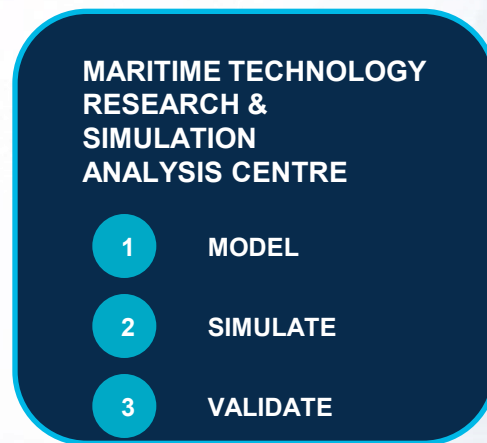
UNDERSTAND → PRACTISE → TRANSFER → STANDARDISE

Result: a repeatable academy-wide model that connects teaching, simulation and maritime operations.

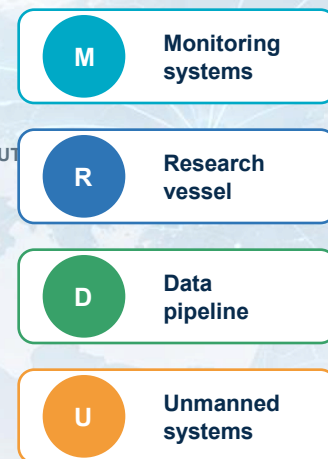
The Centre validates technologies before operational deployment

MISSION

Test, simulate and validate before deployment



VALIDATED OUTPUT



NEXT → RESEARCH-DRIVEN INNOVATION

The validated outputs become the connected operational capabilities shown next.

Research-Driven Innovation



OBSERVE → COLLECT → TRANSMIT → PROCESS → ACT

Shared infrastructure connects field assets, vessel operations, data systems and autonomous platforms.

From Partnership to Pipeline

Startups: joint prototypes, testing on NVNA platforms, internships.

Industry leaders in space and unmanned systems: EnduroSat.

Formats: co-supervised theses, industry lecturers, test-and-evaluation services, joint EU/NATO proposals.

„Never be afraid to ask questions, because if you never ask, the answer is always no.“

Sheena Yap Chan