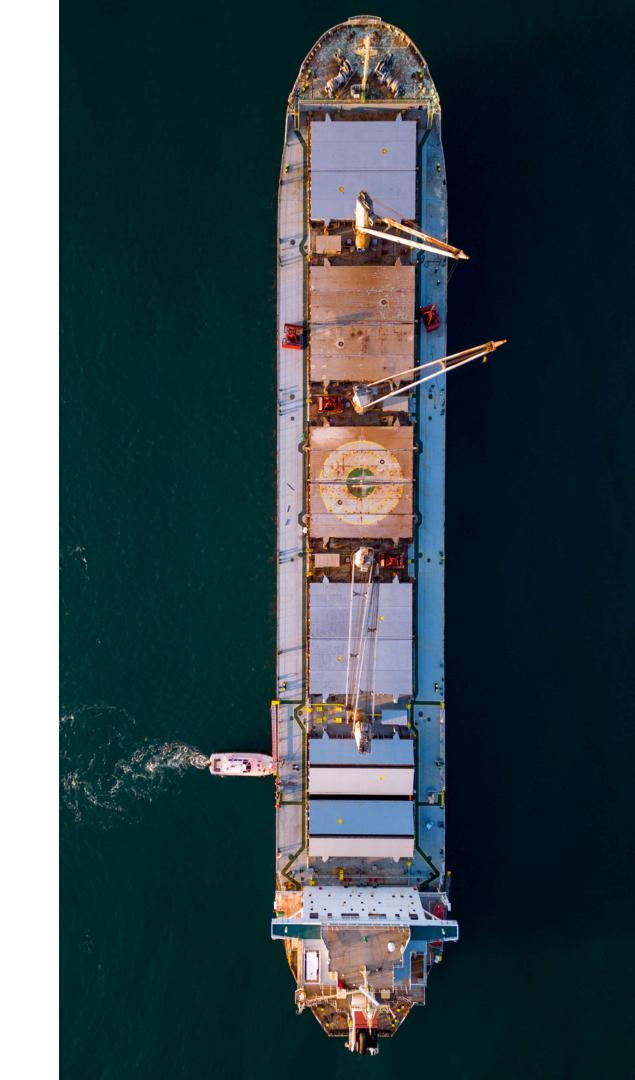


# OptiNav Al

### Features

- Proprietary Al Voyage Planning Leverage advanced Al algorithms to optimize routing, fuel efficiency, and operational decision-making.
- **Predictive Voyage Outcome Modeling** Provide Masters and Operators with real-time insights and scenario analysis to enhance decision-making confidence.
- Safety-First, Cost-Conscious Optimization Balance maximum safety with fuel efficiency and emissions reduction through intelligent voyage planning.





# Timeline







#### 2019 Creation

TNM developed in a pioneering collaboration with IVADO\* and leading Canadian Universities (Polytechnique Montréal, HEC Montréal, Université Laval and Universite de Quebec Trois-Rivieres) taking three years with a \$3M USD investment to build Optinav AI. The solution uses a vessel specific performance model continuously updated with real vessel data for voyage optimization and augmented with data from multiple other sources. Its powerful computer modelling capabilities produces very reliable results even with limited data whilst preserving the Human In The Loop (HITL) experience of the TNM ex-seafaring operations team to communicate tactical and strategic risk to customers.

#### 2023 Testing

Optinav AI was rigorously and successfully tested for one year world-wide by leading commodity houses and large vessel operators. Optinav AI objective based voyage optimization saved up to 10% more than traditional weather routing by working as a team with the Operator, Master and TNM on an off warranty objective. Even if vessels sailed on warranted CP speed & consumption, Optinav was able to seek out routes with better weather and currents with slightly longer distances which improved the vessel Speed Over Ground (SOG) and resulted in savings on average 3% compared to traditional weather routing. Safety was heightened by Optinav AI seeking out better weather in a much higher level of detail in order to maintain a constant RPM for the whole voyage and in line with the voyage objective.

#### 2024 Launch

Optinav AI was awarded first prize for "Weather Routing for Maritime Vessels" at the prestigious CORS (Canadian Operational Research Society). Commercially launched in January 2024, there has been a significant interest uptake in the service from existing and new customers who want to realise new value from objective based voyage optimization.



<sup>\*</sup> IVADO is an interdisciplinary, cross-sectoral research, training and knowledge mobilization consortium whose mission is to develop and promote a robust, reasoning and responsible AI).

### ECO vs Least Cost

### Bulk Carrier from Brazil to China

- Masters and Operators have a bigger challenge than ever before to plan voyages based on multiple changing safety and commercial variables
- Amongst other risks, extreme weather conditions and emissions regulations add further complexity
- Working with your Master and Operator as a close team, using Optinav AI, our experienced operations staff reduce complexity and add certainty to every voyage





**Optimized Savings** (USD)

Optimization Saving

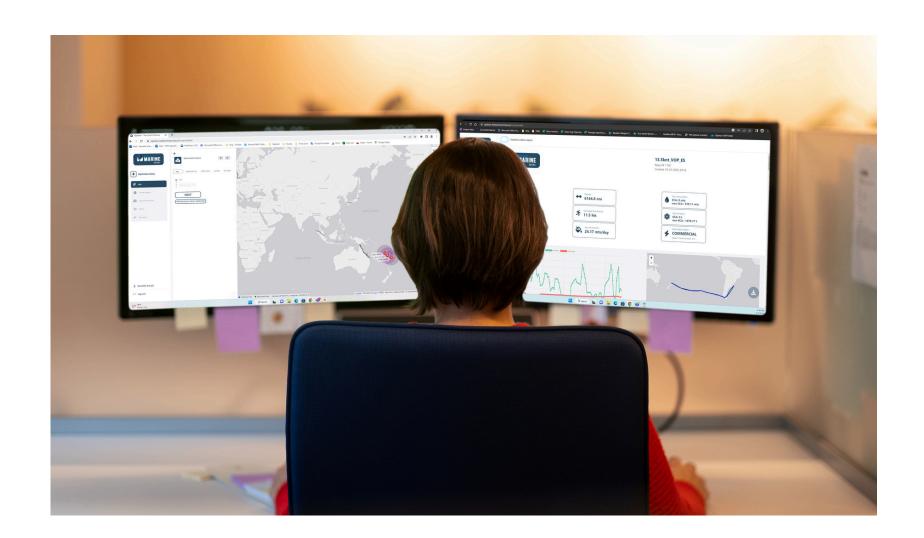
Optimization M/E FOC Savings (MT) Co<sub>2</sub> Saving (MT)

\$36K 3% 42.5

133.9

# Headline Info

- More than 10 years in operation with a strong reputation
- Fastest growing full service Weather Routing Company with
   ~ 1,000 vessels serviced at any time
- New award winning Al-based Voyage Optimization "Optinav" created with leading Canadian Universities
- 24/7 operations in Canada and India
- Experienced ex-seafarers (Captains, Deck Officers, Engineers) providing customers a prompt Human-In-The-Loop approach
- Large experience in Dry Bulk and Tanker vessels with large commodity trading houses and vessel operators/owners
- New Verifavia certified Emissions Desk for EU ETS/UK and EU MRV and CII service
- Professional speed & consumption claims advise and consulting services
- Measurable Return On Investment (ROI) analysis on every voyage



# Services

- Optimization Optinav Al
- Weather Routing
- Performance Monitoring
- OptiRoute
- Vessel onboard optimization system
- FleetView
- Customer web portal
- Daily Fleet Report
- Email based fleet performance status
- Vessel Data Reporting System (VDRS)
- Validated HTML reporting solution for the Master
- Emissions solutions EU ETS, UK/EU MRV and CII
- Post Voyage Analysis (PVA)
- Professional speed & consumption claims support
- Data integration (API)



"We provide a traditional weather routing service combined with investment in the latest technologies from AI to analytics. By blending our commercial expertise with new tools we ensure a top notch service for our clients that will adapt as our industry changes."

**Brian Hatter, President** 



"True North Marine's OptiNav merges Al and expert insight, emphasizing our commitment to quality and human touch. This blend ensures operational excellence, safety, and environmental respect, offering clients an efficient, tailored navigation solution."

Capt Gurjeet Warya, VP Business
Development / Operations



An Acce/eron company

Contact us at sales@tnmservices.com