MACN

Global Port Integrity Platform

Final Report to The Danish Maritime Fund

DEN DANSKE MARITIME FOND

Executive Summary

The Global Port Integrity Platform (GPIP) project was designed to address a practical challenge: MACN had built a substantial body of maritime corruption data, but companies and crews needed better ways to use that information in their day-to-day operations.

With support from The Danish Maritime Fund, MACN worked with Danish maritime companies, academic partners and technical specialists to develop different ways of bringing corruption risk information to the people who need it.

The project resulted in three complementary access routes:

- **Dashboard and Port Integrity Scorecards** for compliance, risk and management teams assessing corruption risks at port level.
- **A REST API** allowing MACN's incident data to be integrated into company and third-party systems.
- **Automated email risk briefs** providing port-specific information to vessels through MACN's existing Pre-Arrival Notification (PAN) process.

The project also expanded the academic research behind MACN's port integrity assessments platform. The University of Piraeus and Universidad de los Andes Colombia conducted research across 303 ports on integrity commitments and corruption safeguards, complementing MACN's incident data with information on the wider port integrity environment.

The project results demonstrate practical uptake beyond the development of the tools themselves. More than 800 individual users have access to the incident dashboard, almost 6,000 Pre-Arrival Notifications have been processed since the project began, submitted by more than 350 companies, and the API is already being integrated into company systems, with several further integrations at different stages of development and testing.

The project has therefore established both practical tools for current use and a foundation for further development. Future opportunities include expanding integrations with maritime systems, extending port-level intelligence and using the evidence generated through the platform to support dialogue and practical improvements with industry and public authorities.

1. Starting Point & Project Objective

Maritime companies and seafarers operate across ports where corruption risks can create operational challenges and put pressure on crews to respond to unethical demands. Assessing these risks is difficult when information is fragmented or based on general risk indicators that do not reflect the specific realities of maritime operations.

MACN had built a substantial body of maritime-specific corruption data from incidents reported by seafarers and companies. However, turning this data into practical information for day-to-day operations remained a challenge. Companies relied on different processes and tools for assessing corruption risks, while the information available to crews before calling at a port was limited.

The Global Port Integrity Platform project was designed to close this gap. The aim was not simply to build a new dashboard, but to find practical ways of getting MACN's corruption risk data to the people who can use it, both ashore and at sea.

The project therefore focused on three objectives:

1. Make maritime corruption risks easier to assess, using actual incident data at port level.
2. Bring the data into existing company workflows, rather than requiring users to rely on a standalone source.
3. Get relevant risk information closer to seafarers, so crews can be better prepared before arriving at a port.

2. Project Journey

The project was developed in six stages, moving from industry consultation and technical development to testing, deployment and longer-term scaling.

PROJECT PHASE	2025	2026
Collaborative platform design	Mar to Oct	Mar to Apr
Technical development	Aug to Dec	Jan
Pilot testing		Jan to Apr
Launch		Mar to Apr
Network deployment		Apr to Jun
Long-term scaling		May to Sep

The project followed the overall sequence set out in the original application. Feedback collected during the collaborative design and pilot phases also shaped the final solutions, including the development of different ways to access the data for shore-based teams and vessel crews.

3. Co-creation & Partners

The project brought together maritime companies, academic partners and technical expertise. Their roles varied across the design, development and testing of the solutions.

DANISH MARITIME COMPANIES	ACADEMIC PARTNERS
Svitzer • Hafnia • Synergy • D/S NORDEN • TORM Working-group companies helped define user needs, test the solutions and explore integration with their existing systems and workflows.	**University of Piraeus • Universidad de los Andes** Supported the risk assessment methodology, including scoring and variables, and researched port-level integrity safeguards and commitments.
TECHNICAL PARTNER	**WIDER INDUSTRY INTEGRATION**
Columbia Road Supported the restructuring and migration of MACN's incident data to Salesforce, creating the central data source connected to the project tools.	**Veson IMOS Platform** Testing MACN's API and exploring how the data could be presented within IMOS for MACN members using the platform.

The involvement of compliance, operational and IT teams from the Danish working-group companies helped ensure that the solutions were developed around real company requirements and could be tested against existing systems and workflows.

4. From Data to Practical Tools

The project developed different ways of accessing the same underlying data, recognising that compliance teams, operations teams and vessel crews need information in different ways.

DASHBOARD & PORT INTEGRITY SCORECARDS

- **For:** Compliance teams - Risk officers - Management
- **Need:** Assess and understand corruption risks at port level.
- **Solution:** The incident dashboard allows users to explore reported corruption incidents by country, port, actor, demand type and vessel type. Port Integrity Scorecards complement this with a broader assessment combining recent incident data, research on port integrity commitments and country-level corruption context.
- **Access:** Directly through MACN's online tools.

REST API

- **For:** Operations teams - IT/Tech - Voyage planning platforms
- **Need:** Access corruption risk data within systems companies already use.
- **Solution:** The API provides structured access to MACN's corruption incident data, allowing companies to integrate MACN data directly into voyage planning, security and other internal systems.
- **Access:** Integrated on a case-by-case basis into company or third-party systems.

AUTOMATED EMAIL RISK BRIEFS

- **For:** Masters - Officers - Vessel crews
- **Need:** Receive relevant port risk information before arrival without accessing another system.
- **Solution:** When a vessel sends a Pre-Arrival Notification (PAN) to MACN, the automated response includes corruption risk information for the destination port.
- **Access:** No separate login or platform is required. The information is delivered through the existing PAN process.

5. Outcomes & Impact

The main result of the project is that MACN's corruption data can now be used in several operational contexts, from company-level risk assessment and system integration to information delivered directly to vessels before a port call.

800+ individual users with dashboard access

More than **800 individual users** in MACN member companies have access to the incident dashboard through the Member Area.

The project also produced Port Integrity Scorecards covering **303 ports**, combining incident patterns with research on port-level integrity commitments and country-level context.

What changed: Companies can access maritime-specific, port-level evidence to support their own corruption risk assessments and decision-making.

~6,000 PANs processed from 350+ companies

Since March 2025, MACN has received and processed almost 6,000 Pre-Arrival Notifications, submitted by more than 350 companies. This means that the system has supported close to 6,000 ship voyages, helping crew and companies to better prepare and prevent corruption risks.

The automated process allows relevant corruption risk information for the destination port to be included in MACN's response, reaching vessels without requiring crews to log into another platform.

What changed: Port-specific corruption information can reach Masters and crews as part of a process they already use before port arrival.

2 API INTEGRATIONS with others underway

The API created through the project allows MACN's corruption incident data to be integrated directly into company and third-party systems.

TORM and Synergy have connected to the API, while further integrations or testing are being explored with IMOS, Hafnia, NSB, Seaspan and Spliethoff.

What changed: Companies no longer need to rely only on separate MACN tools to use the data. The same corruption risk information can be brought into the systems where operational decisions are already made.

303 ports covered by integrity research

Research conducted by the University of Piraeus and Universidad de los Andes assessed integrity commitments and safeguards across 303 ports.

This adds another perspective to MACN's incident data by examining measures that are in place to reduce corruption opportunities, rather than looking only at reported incidents.

What changed: The project enables MACN to look at both sides of port integrity: reported corruption risks and the institutional safeguards intended to address them in the port environment.

Industry perspectives

Feedback from companies using and testing the tools illustrates how the different forms of access can support port risk assessment, system integration and crew preparedness.







6. The Tools in Practice

The project translated MACN's data into practical tools designed for different users and operational contexts. The examples below show how the information is presented and delivered in practice.

Incident Dashboard

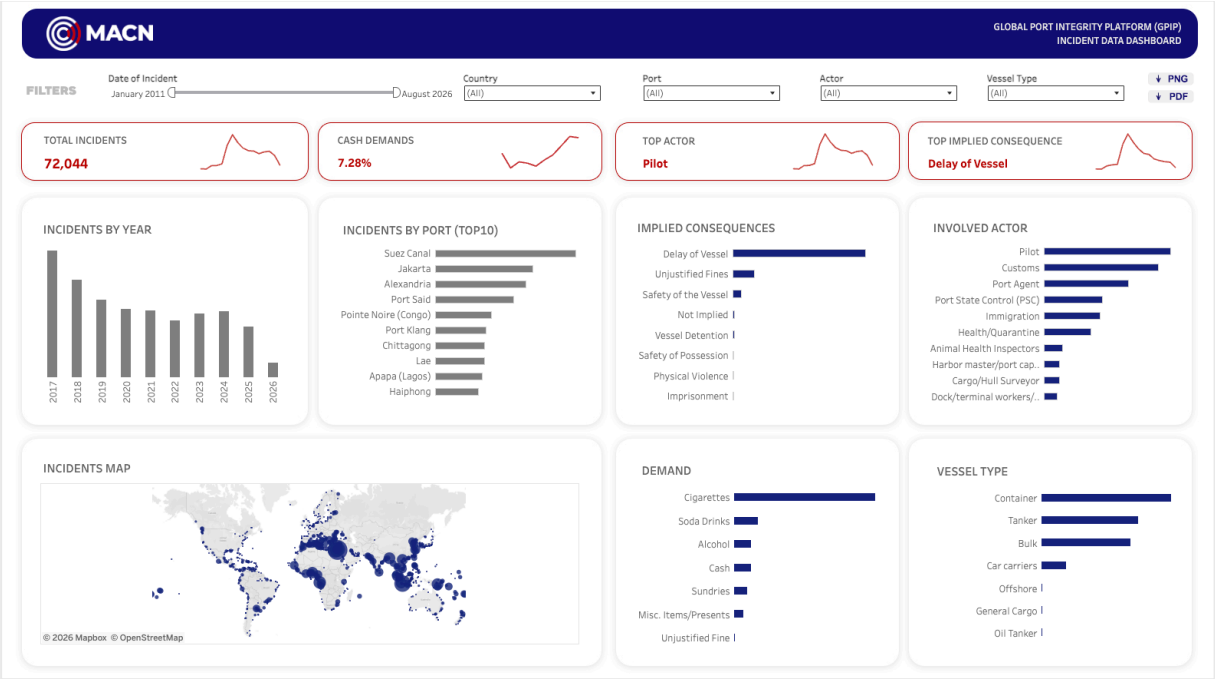


Figure 1. MACN Incident Dashboard.

Users can explore corruption incidents by country, port, actor, demand type and vessel type, allowing them to identify patterns relevant to their own risk assessments.

Port Integrity Scorecards

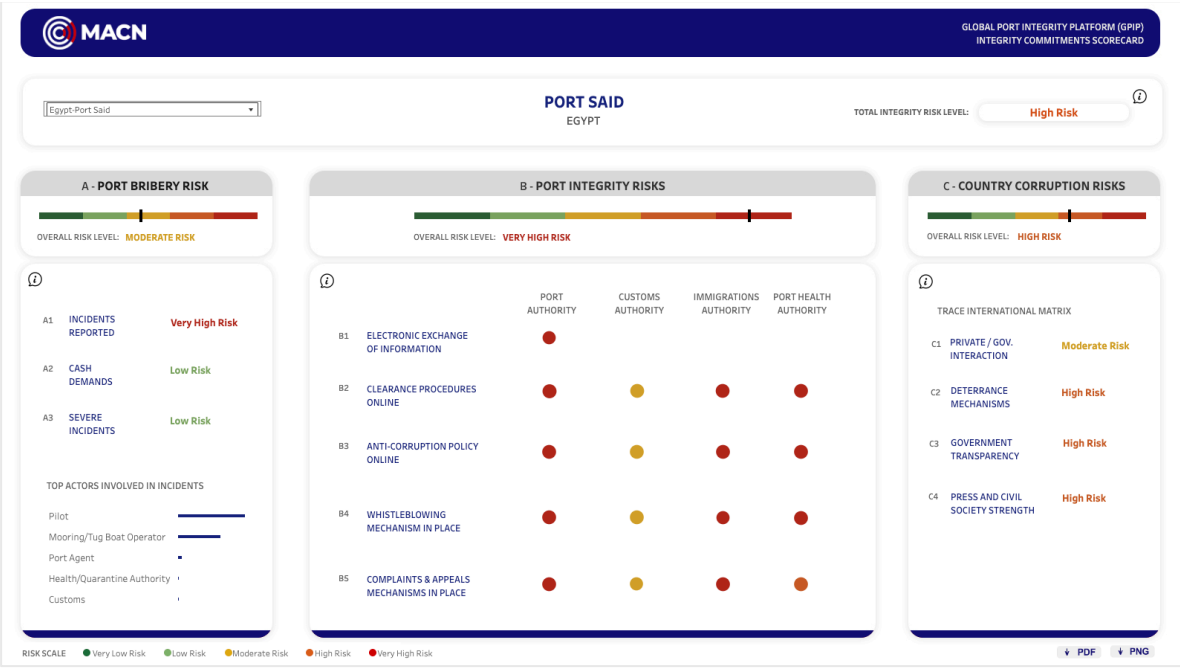


Figure 2. Example Port Integrity Scorecard.

The scorecards provide a broader view of integrity conditions at port level by bringing together three sources:

Port bribery risks	Port integrity commitments	Country-level context
MACN anonymous incident reports, looking at scale, cash demands and severity.	Academic research into safeguards and commitments by relevant authorities.	Country-level corruption indicators from the TRACE Risk Index. [1]

Together, these provide a structured view of both reported corruption risks and the wider integrity environment around the port.

Automated Email Risk Brief

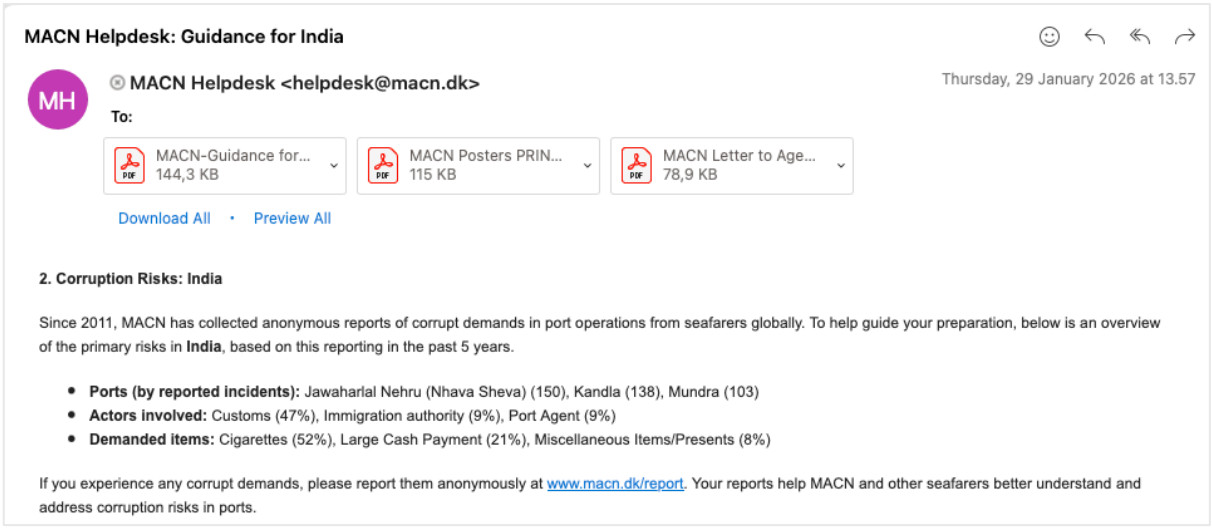


Figure 3. Example of port-risk information included in a PAN response.

When MACN receives a Pre-Arrival Notification, the automated response includes relevant risk information for the destination port. This allows information to reach Masters and crews through an existing process, without requiring another login or platform.

[1] The TRACE Bribery Risk Matrix measures business bribery risk across countries and territories, based on factors including interactions with government, anti-bribery deterrence and enforcement, government transparency, and civil society oversight. More information: TRACE Bribery Risk Matrix

API Integration: IMOS Concept

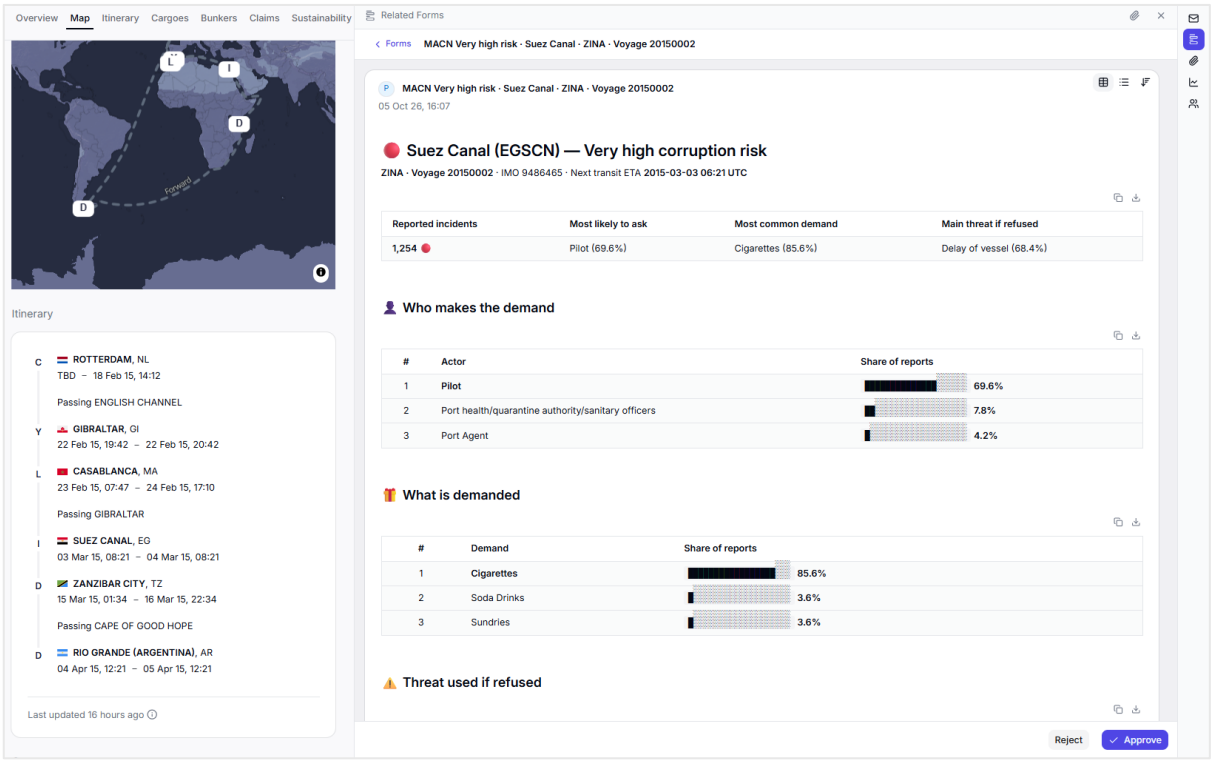


Figure 4. Proposed IMOS interface using MACN API data (Interface under development. Final implementation may differ).

This proposed interface shows how MACN's corruption risk data could be presented directly within the IMOS platform. The concept is currently being tested and developed, illustrating how the API can bring MACN data into systems already used for voyage planning.

7. Industry Engagement & Communication

Industry engagement was built into the project from the start. In addition to individual sessions with working-group companies, three main workshops gave opportunities to introduce the project, get input, test its direction and share the tools as they developed.

COPENHAGEN | APRIL 2025

Project kick-off and collaborative design

The project was formally introduced at the Copenhagen workshop on 9 April 2025, bringing together **22 maritime organisations**. Discussions focused on the project

approach, industry participation and how improved corruption risk information could support maritime companies and their crews.



SINGAPORE | OCTOBER 2025

Industry feedback during development

Nearly **50 participants representing more than 25 maritime companies** joined the project workshop on 23 October 2025. The session presented the project's progress and brought the developing approach to a broader group of MACN members, including the Danish working-group companies.



ATHENS | APRIL 2026

From development to practical use

The final project workshop focused on how MACN's corruption data could be used in practice, presenting the dashboard and scorecards, API and automated risk information for crews.



External communication

The project outputs were also communicated through MACN's external channels and maritime media, helping introduce the tools and their practical applications to a wider industry and tech audience. The following table summarizes some of the media outlets that published MACNs press releases about the project and partnership with DMF.

SeatradeMaritime News	Practical intelligence to tackle maritime corruption
The Maritime Executive	Maritime Industry Turns Corruption Data into Operational Intelligence
SMART MARITIME NETWORK	MACN turns maritime corruption data into operational intelligence
Splash TECH	Port corruption alerts move from dashboard to bridge - Splash247
Digital Ship	70000 corruption reports turn into operational intelligence for shipowners - Digital Ship
csn.	MACN launches Operational Intelligence tools - Cyprus Shipping News
SAFETY4SEA	MACN turns corruption data into practical risk intelligence - SAFETY4SEA

8. Lessons Learned

The development and testing process highlighted four lessons for the continued use and development of MACN's data tools.

Different users need different ways to access the same data
A single platform cannot meet every operational need. Compliance and risk teams benefit from tools that allow them to explore and assess the data, while operations teams increasingly need information integrated into existing systems, and crews need simple information delivered at the right moment

Integration is as important as access
Making data available does not necessarily make it easy to use. The development of the API and automated PAN responses showed the importance of bringing information into systems and processes that companies and crews already use.

Early industry involvement improves the end product
Working directly with compliance, operational and IT teams helped identify practical requirements that would have been difficult to define through technical development alone. The workshops and testing process also helped the project evolve from an initial platform concept into several complementary ways of accessing the data.

Incident data needs context
Reported incidents provide important evidence of where and how corruption occurs, but they do not provide a complete picture of the integrity environment at a port. Combining incident data with research on port-level safeguards and data at country-level made it possible to develop a more contextualized assessment through the Port Integrity Scorecards.

9. Sustainability & Future Direction

The project has established the data infrastructure, methodology and access routes needed to make MACN's corruption data more useful in practice. These capabilities will

continue as part of MACN's work, while also creating a foundation for further development.

⇒ **EXPANDING INTEGRATION INTO MARITIME SYSTEMS:**

The API creates opportunities to make corruption risk information available directly within the systems companies already use. TORM and Synergy are connected, and further integrations and testing are underway or being explored with other companies and platforms, including IMOS. Expanding these connections could significantly broaden how and where MACN's data is used across maritime operations.

⇒ **DEVELOPING PORT-LEVEL INTELLIGENCE:**

The combination of incident data, integrity research and company feedback creates opportunities to further develop how port risks are assessed and communicated. MACN continues to receive new incident reports every day, allowing the underlying data to remain current as risks and conditions change. Future work could build on the 303 ports already researched, expand geographic coverage and continue improving how different data points are brought together to provide useful port-level intelligence. The GPIP research currently covers 303 ports across 99 countries.

⇒ **FROM RISK INFORMATION TO PORT-LEVEL ACTION:**

The project has also strengthened the evidence available for engagement beyond individual companies. Port-level information can provide a factual starting point for dialogue with public authorities and other maritime actors on gaps in safeguards and areas where practical reforms could reduce opportunities for corruption. This reflects the wider purpose of GPIP as a basis for transparency, public-private dialogue and improvement, rather than simply identifying higher-risk locations.

⇒ **REACHING MORE USERS AT THE RIGHT MOMENT:**

The three access routes developed through the project demonstrate that the same underlying data can serve very different needs. A next phase could explore additional ways to deliver relevant information within operational processes, extend integration with industry platforms, and strengthen the information available to crews before and during port calls.

Building on this Foundation

The project has demonstrated that MACN's corruption data can be turned into practical tools used across different parts of maritime operations. It has also identified opportunities for a next phase of development.

Further work could expand API integrations with maritime and company systems, extend the Port Integrity Scorecards to additional countries and ports, and explore how AI can help analyse MACN's growing dataset and provide more relevant insights to users.

MACN would welcome the opportunity to build on the results of this project together with The Danish Maritime Fund, taking the tools and infrastructure developed through this grant into their next phase.

10. Conclusion

The project set out to make MACN's maritime corruption data more useful in day-to-day operations. Over the project period, this developed into three complementary ways of accessing the data: through MACN's online tools, through integration into company systems, and through risk information delivered directly to vessels.

The results show that these approaches are already reaching different parts of the maritime industry. More than 800 individual users have access to the dashboard, almost 6,000 Pre-Arrival Notifications have been processed since the project began, more than 350 companies have used the PAN process, and the API is now connected to company systems, with further integrations being developed.

The project has also strengthened MACN's ability to assess port integrity more broadly, with research now covering 303 ports. Together, the tools, data infrastructure and methodology provide a foundation for wider industry integration and for using port-level evidence to support practical improvements in maritime integrity.