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Structuring Collaboration: Governance in Maritime Training Networks

A Theoretical Framework for Cross-Border Stakeholder Alignment

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ABSTRACT:

Rajojen yli järjestettävä merenkulun koulutus perustuu yhteisiin kansainvälisiin vaatimuksiin, mutta koulutuksen hyväksyntä, tunnustaminen ja valvonta toteutuvat eri tavoin eri kansallisissa järjestelmissä. Tässä tutkielmassa tarkastellaan, miten vastuu, koordinointi ja vaatimustenmukaisuuden osoittaminen voidaan järjestää tällaisessa ympäristössä. Tutkimuskohteena on GigaMare Europe Oy:n rajat ylittävä koulutusyhteistyö. Tutkimuksen teoreettinen viitekehys yhdistää verkostohallinnan teorian ja institutionaalisen teorian. Verkostohallinnan avulla tarkastellaan vastuun, päätöksenteon ja koordinoinnin jakautumista eri organisaatioiden välillä, kun taas institutionaalisen teorian avulla tarkastellaan kansallisten hyväksyntä-, tunnustamis- ja valvontakäytäntöjen eroja. Keskeisiä käsitteitä ovat verkostohallinta, institutionaalinen etäisyys, vastuu, koordinointi, auditointikelpoisuus ja vaatimustenmukaisuuden osoittaminen. Tutkimus toteutettiin laadullisena yhden tapauksen tutkimuksena, jonka ensisijainen aineisto koostui kuudesta puolistrukturoidusta haastattelusta. Haastateltavina oli kaksi sisäistä toimijaa, yksi merenkulun koulutusorganisaation edustaja, yksi asiakaspuolen edustaja sekä kaksi sääntelyyn liittyvää toimijaa. Haastatteluja täydennettiin sääntelyyn ja organisaatioihin liittyvillä asiakirjoilla, ja aineisto analysoitiin temaattisesti abduktiivista tutkimuslogiikkaa hyödyntäen. Tulosten perusteella tarkasteltu järjestely ei vastannut puhtaasti jaettua hallintaa eikä erillisen verkoston hallinto-organisaation mallia, vaan siinä yhdistyivät tunnistettava vastuu ja hajautettu toteutus. Aineistossa korostuivat viisi toisiinsa liittyvää tekijää: selkeästi tunnistettava vastuu, kurssikohtainen dokumentointi, auditointikelpoinen näyttö, säännölliset koordinoitinkäytännöt sekä kyky toimia paikallisissa institutionaalisissa rajapinnoissa. STCW muodosti yhteisen kansainvälisen lähtökohdan, mutta koulutuksen hyväksyntä ja tunnustaminen riippuivat edelleen kansallisista järjestelmistä, lippuvaltioista ja asiakkaiden vaatimuksista. Luottamus tuki yhteistyötä, mutta ei korvannut muodollisia sopimuksia, dokumentaatiota ja muuta tarkistettavissa olevaa näyttöä. Johtopäätöksenä todettiin, että institutionaalisten erojen käytännön vaikutuksia voidaan hallita pitämällä vastuut selkeinä, dokumentoimalla kurssikohtaiset vaatimukset, säilyttämällä tarvittava näyttö ja ylläpitämällä säännöllisiä koordinoitikanavia. GigaMare Europe Oy:n tapauksessa erillisen hallinto-organisaation perustamiselle ei havaittu tässä vaiheessa aineistoon perustuvaa tarvetta, vaan nykyisten vastuiden, asiakirjojen ja koordinoitinkäytäntöjen selkeyttäminen on perustellumpi lähtökohta.

KEYWORDS: network governance, institutional distance, maritime training, cross-border collaboration, regulatory compliance, auditability, STCW.

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Abbreviations

ETO	Electro-Technical Officer
IMO	International Maritime Organization
MARINA	Maritime Industry Authority
MET	Maritime Education and Training
MISMO	MARINA Integrated Seafarers Management Online System
MoU	Memorandum of Understanding
NAO	Network Administrative Organisation
NGT	Network Governance Theory
OEM	Original Equipment Manufacturer
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers

1 Introduction

Cross-border maritime training brings together training institutions, industry actors, and regulatory-facing stakeholders. Maritime clusters can support this collaboration through public-private-academic partnerships, but they still need governance arrangements that keep responsibilities and interests aligned (Pinto & Cruz, 2012). Coordination that rests mainly on individual brokers can solve immediate problems, but it is harder to sustain as collaboration expands (Takimoto & Furusho, 2016).

Maritime clusters also face governance demands linked to digitalisation, cross-border partnerships, and regulatory complexity (Lambrou, 2016). GigaMare Europe Oy provides the focal case because its activities span different regulatory environments, industry partners, and academic institutions. The thesis examines how governance structures shape coordination across those interfaces.

1.1 Research Problem and Research Gap

Cross-border maritime training networks operate under the STCW Code, which defines a common international baseline for competence. In practice, STCW implementation is filtered through country-specific regulatory regimes, professional norms, approval systems, and recognition practices. In this thesis, institutional distance refers to differences between these institutional settings as they become visible through approval, recognition, documentation, monitoring, and related coordination requirements. When partners operate across such differences, alignment can become difficult even when technical capability is sufficient. Less attention goes to how formal governance can manage the institutional differences that arise across jurisdictions.

This leaves a more specific question unresolved: **how should governance be organised when institutional distance is substantial?** Network Governance Theory recognises that repeated interaction and trust can support decentralised Shared Governance arrangements (Provan & Kenis, 2008), but cross-border maritime training also operates under

formal compliance, approval, and recognition requirements that interpersonal trust alone cannot handle. Several studies considered in this thesis focus on nationally bounded clusters or collaboration settings where cross-jurisdictional recognition is less central (Lambrou, 2016; Rikkilä, 2019). The remaining gap is therefore more specific: how governance should be configured when actors must coordinate across institutional differences while maintaining traceable compliance and auditability.

The thesis therefore combines Network Governance Theory and Institutional Theory. Network Governance Theory is used to examine how authority, coordination, and accountability are organised, while Institutional Theory is used to explain how approval, recognition, and other jurisdiction-specific requirements constrain those arrangements.

1.2 Significance of the Study

The two theories address different parts of the problem. Network Governance Theory concerns the internal arrangement of coordination and responsibility, while Institutional Theory concerns the external regulatory and legitimacy conditions that differ across national settings. Used together, they allow the analysis to examine how governance has to fit the conditions surrounding the network (Dalton et al., 2020; Pareliusson et al., 2022).

For GigaMare Europe Oy, the practical concern is whether responsibilities, coordination, and evidence are clear enough for customers and authorities to follow. The case is used to derive recommendations for making those arrangements easier to manage and audit.

1.3 Research Question and Objectives

Here, international refers to the cross-border stakeholder interfaces and recognition requirements of the focal case. The research question is:

How can formal governance structures be configured to mitigate institutional distance and support demonstrable regulatory compliance in international maritime training networks?

The study has three objectives: to examine how formal governance structures organise coordination, decision-making, and conflict handling among maritime-training stakeholders; to analyse how institutional distance and differences in STCW implementation constrain cross-border collaboration; and to develop an integrated framework that links governance choices with external compliance requirements.

1.4 Scope and Delimitations

This thesis examines formal governance structures in maritime training networks that operate across borders, with attention to how governance choices affect collaboration under differing institutional and recognition requirements. The study does not use a comparative multi-country design. The analysis uses Network Governance Theory as the primary lens and Institutional Theory as the secondary lens. Consequently, the study deliberately excludes local or nationally bounded maritime clusters, such as the maritime cluster examined by Rikkilä (2019), because these settings do not adequately illustrate the complexities associated with cross-border governance challenges and multi-jurisdictional stakeholder alignment.

Furthermore, while recognising digital networking technologies as increasingly relevant to maritime training innovation, the study does not focus explicitly on technological infrastructure, except regarding governance mechanisms that influence or require digital facilitation. Likewise, macro-level maritime policies are considered only insofar as they affect institutional alignment and governance structures; an extensive policy-level analysis remains beyond the scope.

1.5 Structure of the Study

The thesis moves from the research problem and theoretical framework to the methodology and findings, followed by the discussion, conclusions, practical implications, limitations, and future research.



Figure 1: Structure of the study. Author's own figure.

2 Literature Review: Theoretical Foundations and Contextual Background

This chapter develops the theoretical basis for analysing cross-border maritime training networks. Network Governance Theory is used to examine how authority and coordination are organised inside the network, while Institutional Theory is used to examine the regulatory and legitimacy constraints surrounding it.

Within Network Governance Theory, the analysis focuses on how autonomous organisations distribute authority, manage conflict, and coordinate collective action. It also draws on the contingencies identified by Provan and Kenis (2008), including trust, network size, goal consensus, and the need for network-level competencies (Jones et al., 1997; Provan & Kenis, 2008).

To complement this perspective, Institutional Theory explains how divergent national regulations, professional norms, and legitimacy requirements shape the environment in which the network operates (Kostova & Zaheer, 1999; Scott, 2014). Combining these perspectives allows governance structure to be examined not only as a coordination choice, but also as an organisational response to institutional distance between national systems (Kostova & Zaheer, 1999).

2.1 Network Governance Theory (NGT)

Efficiency-oriented perspectives, such as transaction cost economics, emphasise cost minimisation and risk sharing. Institutional and resource-dependence approaches instead highlight legitimacy, conformity, and power relations. Efficiency considerations, legitimacy-seeking, and broader institutional pressures can therefore shape network formation.

2.1.1 Core Features of Network Governance

Transaction Cost Economics distinguishes markets and hierarchies as basic coordination forms: markets rely on prices and contracts, while hierarchies rely on authority (Williamson, 1985). These forms become less effective where interdependence, asset specificity, and task complexity require repeated adaptation and exchange of tacit knowledge (Jones et al., 1997). Network governance offers another way to coordinate legally autonomous but interdependent organisations (Jones et al., 1997).

A network is a structured set of ties linking autonomous yet interdependent organisations that collaborate to achieve goals unattainable individually (Jones et al., 1997). Autonomy preserves members' discretion; interdependence generates the coordination problem that governance must solve. Network governance refers to the rules and mechanisms through which the network achieves coordination, control, and accountability without hierarchical authority (Provan & Kenis, 2008).

2.1.1.1 Why Network Governance is Needed and Advantageous

Network governance coordinates activities across autonomous actors while supporting collective accountability and cooperation (Provan & Kenis, 2008). Jones et al. (1997) associate network governance with asset specificity, task complexity, environmental uncertainty, and frequent interaction, while identifying trust, reputation, restricted access, collective sanctions, and macroculture as safeguards against opportunism.

Network governance allows legally autonomous organisations to pursue collective outcomes without removing their organisational independence. This creates recurring tensions between autonomy and control, efficiency and inclusiveness, and stability and flexibility (Provan & Kenis, 2008). Effectiveness therefore depends partly on whether the governance mode fits the network's conditions (Wegner et al., 2019).

2.1.1.2 Key Theoretical Contributions and Typology

Provan and Kenis (2008) distinguish three ideal modes of network governance. Shared Governance is decentralised and consensus-based, and it tends to work best in smaller networks with high trust and high goal consensus. Lead Organisation Governance concentrates coordination in a dominant member and can be efficient when resources are asymmetric and consensus is moderate. A Network Administrative Organisation (NAO) relies on a dedicated administrative entity and is typically used when networks are large, complex, or subject to external scrutiny (Provan & Kenis, 2008).

The modes also differ in how they organise brokerage, legitimacy, and accountability. Shared governance tends to depend on peer-based brokerage and internal legitimacy (Provan & Kenis, 2008). In a lead organisation model, a dominant member concentrates brokerage and external representation. Under an NAO, brokerage is institutionalised, and procedural accountability is more explicit (Klijn & Koppenjan, 2016; Provan & Kenis, 2008).

2.1.1.3 Short Critique and Recent Debates

Less attention is given to how safety-critical regulation constrains what hybridisation can achieve in practice. In regulated maritime training, trust cannot remove externally imposed documentation, approval, and verification requirements (International Maritime Organization [IMO], 2017). Pure Shared Governance may therefore have limited fit where responsibility and compliance evidence must remain attributable, not because relational trust is irrelevant, but because trust operates alongside a minimum level of formalisation. This thesis consequently examines whether compliance and auditability demands increase the need for brokered and formalised governance, including some NAO-type functions, rather than assuming that governance mode choice is driven by efficiency alone. For this thesis, network governance modes are treated as configurational rather than categorical.

2.1.2 Core Concepts and Mechanisms in NGT

Provan and Kenis (2008) distinguish three modes according to where coordination authority sits: Shared Governance, Lead Organisation Governance, and the Network Administrative Organisation (NAO).

Feature	Shared Governance	Lead Organisation	Network Admin. Org (NAO)
Locus of Control	Decentralised; all partners participate.	Centralised; one powerful member.	Centralised; separate administrative entity.
Trust Requirement	High (Density-based). Essential for coordination.	Moderate (Dyadic). Trust in the Lead is key.	Moderate to High (Institutional). Trust in the system/process.
Decision Making	Consensus-based (Slow).	Top-down / Unilateral (Fast).	Representative / Bureaucratic.
Suitability Under High Auditability Demands (Critical Analysis)	Limited fit under high auditability demands; risks diffuse accountability and inconsistent documentation.	Potential fit if the lead can impose standards; risk of perceived bias and partner resistance.	High potential for compliance tracking and standardisation; risk of bureaucratic overload and resource cost.

Table 1: Comparative analysis of network governance modes

Note. Adapted from Provan and Kenis (2008). The “Suitability Under High Auditability Demands” row is the author’s own analytical extension.

Decision-making follows the distribution of authority shown in Table 1. Shared Governance distributes decisions across participating organisations, whereas Lead Organisation and NAO arrangements give a focal actor or administrative unit a clearer decision-making role (Provan & Kenis, 2008). Even brokered arrangements still require negotiation during implementation because participating organisations remain autonomous (Klijn & Koppenjan, 2016).

Network collaboration also requires ways to resolve disagreements over responsibilities, delivery, and interpretation. Routine issues may be settled through direct discussion,

while disputes affecting compliance or formal responsibility may require escalation to the actor responsible for coordination (Jones et al., 1997; Klijn & Koppenjan, 2016). Conflict is therefore part of network governance, not necessarily evidence that collaboration has failed (Wegner et al., 2019).

2.1.3 Stakeholder Alignment and Performance in Networks

Provan and Kenis (2008) link network effectiveness to four conditions: trust distribution, network size, goal consensus, and the need for network-level competencies. High trust and goal consensus favour Shared Governance, whereas larger networks, uneven trust, and stronger network-level capability requirements make brokered forms such as Lead Organisation or NAO governance more feasible. In cross-border settings, uneven regulatory knowledge and resources may add to the need for clearer roles and coordination procedures. Network governance also involves recurring tensions between efficiency and inclusiveness, internal and external legitimacy, and flexibility and stability (Provan & Kenis, 2008).

2.2 Institutional Theory and Cross-Border Challenges

2.2.1 Core Tenets of Institutional Theory

Scott (2014) distinguishes regulative, normative, and cultural-cognitive institutions. Regulatory requirements may encourage STCW-related standardisation, while local educational and professional expectations may favour established practices. A practice accepted within one educational setting may therefore require adaptation or additional evidence before it is accepted elsewhere. Governance structures in this context therefore must coordinate not only tasks, but also the interface between shared international requirements and locally embedded practices (Scott, 2014).

2.2.2 Institutional Misalignments in Networks

Legitimacy gained in one jurisdiction does not automatically transfer to another because organisations remain embedded in different institutional settings (Kostova & Zaheer, 1999). When organisations collaborate across borders, differences in regulation, professional norms, and accepted practices can create conflicting expectations within the same network.

Institutional distance refers to differences between the institutional profiles of the partners' home environments (Kostova & Zaheer, 1999). In maritime training, these differences appear in how quality standards are defined, how authority is understood, how compliance is demonstrated, and what forms of collaboration are accepted. Cross-country differences can therefore make coordinated action more difficult (Kostova et al., 2020).

Without a common authority, partners may struggle to settle differences over procedures, responsibilities, and evaluation criteria (Kostova & Zaheer, 1999). Institutional distance then becomes a governance problem rather than merely a difference between national systems.

2.3 Theoretical Framework

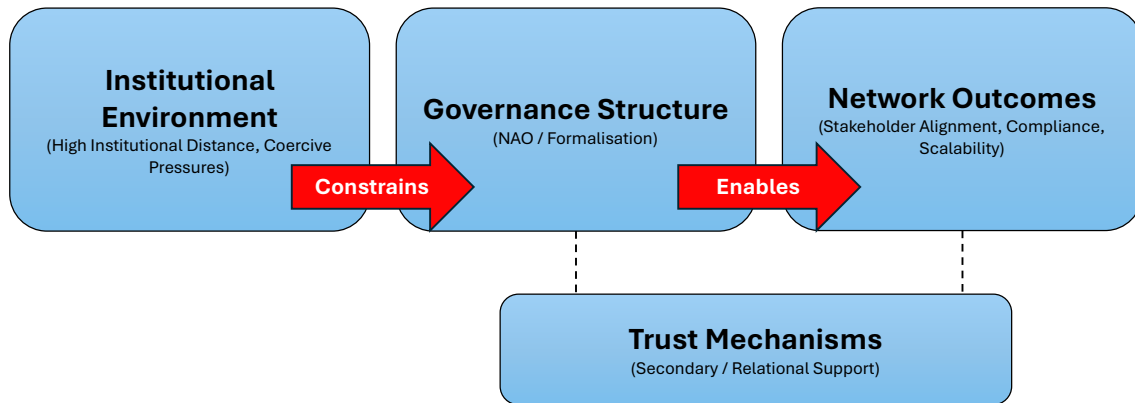


Figure 2: Theoretical framework: Institutional constraints on governance structure

Note. Author's own figure, developed from Network Governance Theory and Institutional Theory (Jones et al., 1997; Kostova & Zaheer, 1999; Provan & Kenis, 2008; Scott, 2014).

Figure 2 combines the two theoretical lenses used in the study. Network Governance Theory identifies how coordination can be organised, including Shared Governance, Lead Organisation Governance, and NAO-type arrangements (Provan & Kenis, 2008). Institutional Theory is used to examine the external conditions that make some arrangements more or less workable, especially institutional distance, regulatory differences, and recognition requirements (Kostova et al., 2020; Scott, 2014).

Governance choice is therefore treated as a response to both internal coordination needs and external institutional conditions. Where trust and shared norms are strong and regulatory demands are limited, decentralised governance may be workable. Cross-border maritime training adds approval, recognition, documentation, and monitoring requirements that can increase the need for clearer responsibility and more formal coordination.

Figure 2 is used as a sensitising analytical framework rather than a tested causal model. It highlights how institutional conditions constrain governance choices and how governance mechanisms may support alignment, without treating these relationships as

deterministic. Trust remains a relational mechanism alongside formal governance, while the empirical analysis examines whether auditability and attributable responsibility increase the feasibility of more brokered or formalised arrangements. Trust therefore represents a working proposition rather than a predetermined empirical conclusion.

The specific gap addressed by the framework is that maritime collaboration research identifies fragmented or informal coordination, differences in STCW interpretation, and stakeholder expectations, but does not resolve how authority and accountability should be organised when collaboration crosses jurisdictions (Dalton et al., 2020; Pareliussen et al., 2022; Ghosh et al., 2025; Phanphichit & Bartusevičienė, 2024). The literature also gives limited guidance on how differences in approval, recognition, professional expectations, and regulatory interpretation should shape the organisation of accountability and compliance evidence across jurisdictions (Kostova et al., 2020; Kostova & Zaheer, 1999; Rikkilä, 2019).

The framework therefore connects Network Governance Theory's focus on authority, coordination, and accountability with Institutional Theory's explanation of cross-jurisdictional regulatory and professional differences (Jones et al., 1997; Kostova et al., 2020; Kostova & Zaheer, 1999; Provan & Kenis, 2008). This study applies the framework to GigaMare Europe Oy to examine which governance configuration is feasible under cross-border compliance and recognition demands. In this thesis, effectiveness refers primarily to predictable coordination and the ability to demonstrate compliance through traceable evidence, rather than stakeholder satisfaction or financial performance.

3 Methodology

3.1 Research design and case boundaries

This chapter described how the study was designed to answer the research question and how the integrated theoretical framework was operationalised in empirical work. The study applied Network Governance Theory as the primary analytical lens and Institutional Theory as a complementary perspective to examine how formal governance structures could be configured to enable collaboration in cross-border maritime training networks characterised by institutional distance and compliance constraints related to STCW (IMO, 2017; Jones et al., 1997; Klijn & Koppenjan, 2016; Kostova et al., 2020; Kostova & Zaheer, 1999; Provan & Kenis, 2008; Scott, 2014).

This study used a qualitative single-case design. This choice followed from the nature of the research question, which was primarily explanatory and configurational, focusing on how governance arrangements were structured and how they functioned under specific institutional and regulatory conditions (Yin, 2018). Cross-border maritime training governance could not be captured with a single indicator or performance figure. In practice, it was made up of linked elements, for example, who had decision rights, what rules and procedures were used, how accountability was documented, which coordination roles existed, and how compliance work was organised across stakeholders (Jones et al., 1997; Klijn & Koppenjan, 2016; Provan & Kenis, 2008). A qualitative approach was appropriate because it enabled analysis of meanings, mechanisms, and stakeholder interpretations that shaped governance design and operation in practice.

The study followed a pragmatic interpretive approach with abductive logic. Network Governance Theory and Institutional Theory informed the interview guide and the initial coding template (Klijn & Koppenjan, 2016; Kostova et al., 2020; Kostova & Zaheer, 1999; Provan & Kenis, 2008; Scott, 2014). During analysis, the coding structure was adjusted where the evidence did not fit the initial categories. One such change separated course documentation (GOVDOC) from auditability and compliance evidence (AUDITCOMP):

the former covered documents used to coordinate delivery, while the latter covered evidence used to demonstrate approval, instructor competence, delivery, or certificate validity.

GigaMare Europe Oy was examined as a single case with an embedded network perspective. The case was selected because its cross-border collaboration involved compliance demands that constrained governance options (Klijn & Koppenjan, 2016; Kostova et al., 2020; Kostova & Zaheer, 1999; Provan & Kenis, 2008). The aim was analytical rather than statistical generalisation: to examine how network-governance concepts operate in a safety-critical, compliance-intensive training setting (Klijn & Koppenjan, 2016; Provan & Kenis, 2008).

The analysis targeted the formal coordination arrangements linking GigaMare Europe Oy with its key network counterparts in maritime training. This study examined governance design and early formalisation decisions, including how governance was negotiated and specified under compliance demands, rather than evaluating long-run performance outcomes. The study focused on how GigaMare Europe Oy and relevant external actors allocated coordination, decision-making, accountability, reporting, and compliance work, including formal agreements where accessible (Klijn & Koppenjan, 2016; Provan & Kenis, 2008). The analysis excluded training outcomes and instructional quality.

The case boundary covered the relationships directly involved in training delivery and recognition, together with the institutional and regulatory conditions affecting those relationships (Kostova et al., 2020; Kostova & Zaheer, 1999; Scott, 2014). Empirically, the two internal case actors provided evidence on the focal organisational arrangement, while the training-provider, customer-side, and regulatory-facing participants provided external stakeholder perspectives on coordination, recognition, approval, and auditability conditions relevant to that arrangement. These external participants were not treated as interchangeable with internal case actors, nor were they assumed to constitute the entire focal network. The study was bounded temporally by the period during which the

network and its governance mechanisms were being established and formalised. Within these boundaries, the aim was to identify which formal governance structures were feasible under institutional distance and compliance constraints and how these structures could support stakeholder alignment (Klijn & Koppenjan, 2016; Kostova et al., 2020; Kostova & Zaheer, 1999; Provan & Kenis, 2008).

3.2 Data collection

This study used two complementary sources: semi-structured interviews and supplementary document analysis. Interviews formed the primary empirical source, providing stakeholder accounts of how collaboration was organised, where coordination frictions arose, and what governance mechanisms were considered feasible under compliance expectations. Regulatory and organisational documents provided contextual and formal grounding for selected claims about requirements and governance practices. Documentary material was therefore used mainly to cross-check and contextualise the interview evidence rather than as an equally weighted second primary dataset (Bowen, 2009; Saunders et al., 2019).

3.2.1 Semi-structured interviews

Participants were chosen based on their role and involvement in collaboration and compliance work, so that the interviews covered governance arrangements and institutional constraints relevant to the case (Saunders et al., 2019). The intention was to cover the roles most relevant to the unit of analysis, rather than to build a numerically representative sample.

Participants were recruited from four categories aligned with the theoretical framework: internal case actors, maritime education and training participants, regulatory-facing stakeholders, and industry stakeholders. Together, these groups provided perspectives on both governance mechanisms and the institutional pressures affecting the case.

Group	Inclusion rationale	Example roles/organisations	Interviews conducted	Analytical purpose
Internal case actors	The focal case is GigaMare Europe Oy, but operational and coordination capacity relevant to Europe-linked activities is partly drawn from GigaMare Inc. Internal actors are therefore necessary to understand how governance is designed and enacted in practice across the focal arrangement.	GigaMare Europe Oy decision-maker; GigaMare Inc personnel involved in Europe-linked operations, partnerships, training coordination, documentation, or compliance support.	2	To identify how decision authority, coordination roles, reporting responsibilities, and formalisation choices are structured within the focal case arrangement.
Training providers / MET partners	These actors participate directly in training delivery, coordination, quality processes, and recognition-related interaction relevant to the focal case.	Aboa Mare; GMC; GigaMare PH; other directly relevant MET staff or partner representatives.	1	To examine coordination practices, role allocation, operational frictions, quality assurance routines, and the degree of formalisation in partner relationships.
Regulatory-facing stakeholders	The study explicitly examines institutional distance, recognition requirements, and compliance-related constraints, so regulatory-facing actors are relevant where access is feasible.	Traficom; maritime authority representatives; recognition, audit, or compliance-related stakeholders.	2	To examine documentation expectations, auditability requirements, recognition criteria, and points where cross-border institutional misalignment becomes visible.
Industry stakeholders/customers	These actors shape what kinds of training arrangements are considered credible, acceptable, and sufficiently auditable, but they are secondary unless directly accessible within the case network.	Shipping companies; crewing firms; training buyers; user-side representatives linked to the focal case.	1	To assess what governance arrangements increase credibility, predictability, and willingness to engage from the client or user perspective.
Optional: OEM / technology-linked training actors	These actors were not included because no technology-linked actor materially affected training design, certification expectations, or governance dependencies within the final case boundary.	Wärtsilä; ABB Marine; other directly relevant technology-linked training actors	0	No empirical role in the final analysis.

Table 2: Interview sampling strategy and analytical relevance

Interview participants were selected purposively based on their role and involvement in governance, coordination, compliance, and recognition-related processes relevant to the focal case. Because GigaMare Europe Oy operated with limited direct staffing while drawing on operational support and resources from GigaMare Inc, the internal case actor category included both GigaMare Europe Oy representatives and directly involved GigaMare Inc personnel. I conducted six interviews across four analytically relevant participant categories. Document analysis complemented the interviews, strengthening contextualisation and interpretation.

Interviewee code	Participant group	Position/title	Organisation	Interview date	Duration
I1	Internal case actor	Senior nautical training and compliance actor	GigaMare Inc / internal case organisation	30/04/26	54m 9s
I2	Industry stakeholder/customer	Crew management representative	Shipping company/crew management organisation	04/05/26	28m 32s
I3	Training provider / MET partner	Senior executive in maritime education and training	MET institution / maritime academy and training centre	04/05/26	24m 53s
I4	Internal case actor	Instructor; operational coordination and documentation	GigaMare Inc / internal operational training support	06/05/26	25m 59s
I5	Regulatory-facing stakeholder	Maritime qualifications/certification official	Traficom / Finnish maritime authority	06/05/26	30m 39s
I6	Regulatory-facing stakeholder	Seafarer education and training oversight official	MARINA / Philippine maritime authority	07/05/26	53m 29s

Table 3: Interview participants and interview duration

The interviews followed a semi-structured format, with common core topics and role-specific follow-ups (Saunders et al., 2019). I contacted participants through role-targeted outreach and provided a short information sheet covering the study purpose,

confidentiality, and use of the material. I conducted and recorded all six interviews in Microsoft Teams. Teams-generated transcripts were used as working transcripts and cleaned before extracts were used as direct quotations. Recordings and transcripts were stored in a University of Vaasa OneDrive folder that only I could access.

I derived the interview questions from the theoretical framework. The main questions were broad, while optional follow-ups introduced accountability, documentation, auditability, trust, and formalisation where relevant. Network Governance Theory informed questions on governance structure, coordination, decision-making, reporting, and conflict handling; Institutional Theory informed questions on legitimacy, institutional distance, and compliance demands. STCW provided the practical reference point for documentation, evidence, and recognition requirements (IMO, 2017). Because the guide was theory-informed, repeated references to these concepts were treated as evidence of their salience, not as proof that no other governance mechanisms mattered.

3.2.2 Document and secondary data collection

Documents were collected in parallel with the interviews and used mainly to contextualise selected interview claims against written requirements and accessible organisational materials, particularly where governance, compliance expectations, or recognition practices were described formally (Bowen, 2009).

Each document was catalogued with basic metadata, including source, date where available, document type, and a short note on relevance. Relevant sections were extracted using the same construct categories applied in the interview analysis, allowing selected interview accounts to be checked and contextualised against documentary material (Bowen, 2009). Table 4 therefore reports source categories rather than confidential individual file names.

Source category	Examples/source type	Analytical use	Limitation
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STCW regulatory baseline	IMO STCW Convention and Code and related STCW implementation context	Provided the common compliance reference for interpreting interview claims about certification, documentation, recognition, and auditability.	Used as a regulatory baseline for analysis, not as a legal audit of provider compliance.
Authority-facing regulatory and guidance material	Materials linked to maritime training approval, recognition, monitoring, and documentation expectations where accessible	Contextualised how STCW-related requirements were operationalised through national approval and recognition practices.	Availability varied by jurisdiction and access constraints.
Case-related organisational material	Accessible organisational, course-related, reporting, or quality documentation where made available during the study	Helped check and interpret interview claims about course specification, update routines, reporting, and quality evidence.	Confidential individual file names are not reported in the thesis.
Secondary maritime training and governance sources	Academic and contextual sources cited in the thesis	Provided comparison for collaboration problems, institutional distance, auditability, and governance mechanisms in maritime training.	Used for contextualisation rather than as primary interview evidence.

Table 4: Document and secondary sources

3.3 Data analysis

The empirical material was analysed using an abductive thematic analysis. Abduction was understood as an iterative logic in which the analysis moved between theoretical concepts and empirical material, refining interpretations when the initial fit between theory and data was weak (Dubois & Gadde, 2002). Thematic analysis helped organise the material by tracing recurring issues across the interviews and documents, then grouping those issues into themes that could be interpreted in relation to the research question (Braun & Clarke, 2006).

Interview evidence formed the main empirical basis of the analysis. Documents were used to check and contextualise interview claims about formal procedures, compliance expectations, and externally defined requirements. They remained supplementary and were not treated as a second primary dataset or a documentary audit (Bowen, 2009; Saunders et al., 2019).

Network Governance Theory was used to code decision-making, formal roles, accountability, reporting, and coordination mechanisms (Klijn & Koppenjan, 2016; Provan & Kenis,

2008). Institutional Theory was used to code institutional distance and legitimacy pressures, including the effect of compliance and auditability on feasible arrangements (Kostova & Zaheer, 1999; Scott, 2014). STCW provided the concrete reference point for documentation, recognition, and auditability requirements (IMO, 2017).

For analysis, 'governance configuration' meant the combination of decision authority, coordination roles, accountability and reporting, standardised procedures, and responsibility for compliance documentation.

Coding was used as the main analytic technique. Coding was understood as the step where parts of the material were marked with brief labels so they could be grouped and examined systematically (Saldaña, 2021). The first round of labels followed the study's framework to keep the analysis focused on the research question. The set of labels was then revised where interviews or documents repeatedly pointed to issues that did not fit the initial categories (Braun & Clarke, 2006; Dubois & Gadde, 2002).

The analysis proceeded in stages. First, interview material and documents were prepared for analysis, including transcription and organising accessible documents in a document register. Second, an initial coding framework based on Network Governance Theory and Institutional Theory was applied to material concerning governance mechanisms, institutional pressures, and compliance expectations. Next, coded material was reviewed across participants and, where relevant, documentary sources to identify convergence, divergence, and conditions that could explain differences. The codes were then grouped into a smaller number of themes describing the key mechanisms and constraints relevant to the research question. Finally, the themes were related to the integrated framework so the findings could be interpreted transparently through Network Governance Theory and Institutional Theory. The outcome was a set of empirically grounded themes supporting analytical rather than statistical generalisation (Yin, 2018).

Table 5 summarises the main coding categories and how they were consolidated into higher-level findings. The table is not a full codebook; it shows the analytical bridge from coded material to the structure of the findings chapter (Braun & Clarke, 2006; Saldaña, 2021).

Coding category	What was coded	Higher-level finding supported	Main use in findings
GOV-AUTH	Decision authority, contract ownership, role allocation, and identifiable accountability.	Cross-border training governance requires clear responsibility, not diffuse shared responsibility.	4.1 and 4.3
GOV-DOC	Course documents, lesson plans, update routines, reporting records, and quality-system evidence.	Documentation and auditability are central to provider credibility and regulatory acceptance.	4.1 and 4.3
GOV-COORD	Meetings, partner discussions, instructor forums, local intermediaries, and feedback routines.	Recurring coordination routines reduce fragmentation across locations and organisational boundaries.	4.1 and 4.3
INST-DIST	STCW interpretation, flag-state recognition, national approval systems, and local coordination requirements.	Institutional distance appears through how a shared standard is operationalised differently across settings.	4.2
AUDIT-COMP	Approval evidence, inspection expectations, certificate verification, customer due diligence, and traceable records.	Compliance becomes credible when it can be demonstrated through auditable evidence.	4.2 and 4.3
TRUST-REL	Personal contacts, reputation, sector relationships, trust, and due diligence concerns.	Trust supports collaboration, but it does not replace formal compliance evidence in regulated training.	4.1 and 4.3

Table 5: Coding categories

3.4 Trustworthiness and ethics

I addressed trustworthiness through credibility, dependability, confirmability, and transferability. For credibility, I compared selected interview accounts with accessible documents and included participants from different roles (Bowen, 2009; Saunders et al., 2019). For dependability, I recorded the recruitment process, interview procedures, document-selection criteria, and the main coding steps (Saunders et al., 2019). I addressed confirmability by documenting how interpretations were developed and by considering how my familiarity with the case could influence the analysis (Saunders et al., 2019). Transferability was treated analytically rather than statistically, so the case context and governance conditions are described for readers to judge relevance to similar settings

(Yin, 2018). The study did not audit legal compliance; it examined how compliance expectations and auditability shaped governance design.

The ethics procedures focused on informed consent, confidentiality, and secure storage. Participants received an information sheet explaining the study, voluntary participation, the right to withdraw, and use of the material. I used participant codes and broad role descriptions rather than claiming full anonymity, because some specialised roles could still be identifiable to informed readers. Recordings, transcripts, and documents were stored in a restricted-access University of Vaasa OneDrive folder. Recordings were to be deleted after grading, while pseudonymised transcripts and analysis notes were retained only for the thesis process.

4 Findings

The findings draw primarily on six semi-structured interviews: two internal case actors, one training-provider participant, one customer-side participant, and two regulatory-facing participants. Supplementary regulatory and organisational documents were used to contextualise selected claims.

Coding identified recurring issues around decision authority, coordination, documentation, auditability, regulatory interpretation, and trust. These themes are used below to examine how governance addressed institutional distance and demonstrable compliance.

Sections 4.1 and 4.2 present the governance arrangements and institutional constraints observed in the case; Section 4.3 examines how those arrangements addressed the constraints, and Section 4.4 maps the findings back to the framework.

4.1 Governance configuration elements observed in the case

The case did not show a single formal body responsible for the whole cross-border training network. Governance appeared through a combination of contract ownership, role allocation, recurring coordination routines, documentation practices, and relationship-based channels. Responsibility was concentrated at specific points, while delivery and day-to-day coordination remained distributed across several actors. The observed arrangement therefore worked through clear responsibility and practical coordination rather than a fully centralised structure.

The clearest governance element was how responsibility was allocated. Interview evidence showed that responsibility was not treated as a general network-wide obligation, but as something attached to the contract, the course, and the organisation formally facing the client or authority. From the training provider perspective, contract ownership determined who remained accountable for delivery and quality even when other

partners participated in implementation. As one interviewee put it, *“you have one organisation who's in charge for ... a client cooperation like this. ... It's also easier for the customer ... because the customer, they have one party that they're discussing with”* (I3). This indicates that the governance problem was not only how to collaborate, but how to prevent responsibility from becoming too diffuse once several organisations were involved.

Customer-side evidence pointed to the same arrangement. A multi-country provider was useful only if the customer could still verify delivery across locations. The participant explained that *“it would be ... practical to deal only with one training provider who can implement it on different regions”* (I2). Initial and validation audits were then used to check whether the provider could deliver as stated (I2). The issue was therefore not scale by itself, but whether responsibility and quality remained visible across locations.

Internally, technical and commercial responsibilities were divided. One internal participant described the technical role directly: *“So usually when it comes to technical, so I give my inputs on ... the topics, the equipment needs to be used for the training, the number of hours required for the training, the outline”* (I4). Sales then handled pricing and direct client communication (I4). Course design therefore crossed functions, with technical feasibility, customer requirements, regulatory expectations, and pricing all affecting the final arrangement. Governance therefore involved coordination between internal functions and external organisations.

Several interviews tied coordination to recurring contact rather than ad hoc communication. Meetings, partner discussions, instructor meetings, and feedback-sharing were used to keep course interpretation and delivery aligned across locations (I1, I3). An internal case actor warned: *“If we go months without meeting, we can ... go, go in different direction, we deliver them the same course”* (I1). Where common course material was used, these routines acted as a practical control without centralising every decision.

This coordination also reached operational staff. I3 described partner and instructor meetings as places to resolve course-level questions and delivery problems. Formal agreements set responsibilities, but instructors and coordinators still needed channels for handling issues that arose during delivery.

Reporting provided another control. For ETO courses, principals and shipping companies received regular updates. I4 described the routine: *“we also have this regular monthly status report ... it includes the pictures, the activities, practical activities that they do, and then the actual topics that they have for the month. And then they also have the list of instructors that handle the courses”* (I4). These reports made delivery visible and created a record that external stakeholders could check.

Documentation carried more weight for mandatory STCW-related training than for a general partnership. I1 stated that *“if it's ... mandatory training STCW courses, it should be very specific”* (I1). Course materials, lesson plans, instructor requirements, update routines, and compliance responsibilities therefore needed to be specified and circulated when changes occurred. This placed responsibility on both the course-content owner and the local delivery actor.

The evidence also showed that course design itself was often formalised through client-facing documentation. For tailor-made in-house courses, clients could request specific topics, equipment focus, drawings, diagrams, and manuals. The provider then submitted specifications, timetables, and learning objectives for approval and revised them based on client input (I4). This shows that governance entered the process before delivery began. In tailor-made courses, clients and providers had to negotiate and document requirements, technical materials, proposed timetables, and learning objectives before the course could move forward. These documents helped both sides clarify what was being delivered and on what basis.

Personal contacts helped open collaboration and maintain communication. Participants described relationships, meetings, and existing sector networks as common entry points (I1, I3, I6). I1 summarised the start of collaboration as *“Personal connection ... and then meetings and see if it's possible to collaborate”* (I1). In the Philippine setting, associations of schools, training centres, manning agencies, and employers also made local contacts easier to identify (I6). These relationships supported access, but they did not establish formal accountability.

Trust had a similar limit. The training-provider participant explained that *“once you, the trust is there, you always need the formal part ... you need to have something to fall back on ... Then you need an agreement”* (I3). I2 likewise linked good relationships with due diligence, integrity, and functioning quality systems. Trust could ease cooperation, but formal evidence still mattered once quality or compliance had to be demonstrated.

Overall, responsibility remained identifiable while delivery and day-to-day coordination were distributed across several actors. Personal relationships supported communication but did not establish accountability on their own.

4.2 Institutional distance and compliance-related constraints

Institutional distance appeared not because STCW was absent, but because the same baseline was handled differently in national approval, flag-state recognition, documentation, monitoring, and local coordination. I1 described the problem directly: *“STCW is international and it should be the same standard all over the world, but each flag state country they interpret it a little bit differently”* (I1).

Customer-side evidence showed that STCW sat alongside other requirements rather than operating as a complete compliance package. Training decisions could also depend on flag-state additions, company-specific requirements, and whether the training was being used globally or regionally (I2). A course could therefore meet the STCW baseline and still need further verification or adaptation in the setting where it would be used.

Recognition by flag states created a separate constraint. I3 described uneven acceptance of Finnish certificates and certificates of proficiency, noting that *“Some flag states require, like, an endorsement”* (I3). The same interview included cases in which training was not approved at all (I3). The practical problem was therefore recognition: technically valid training could still have limited use if another authority or flag state did not accept the evidence. This is consistent with legitimacy remaining tied to specific institutional settings (Kostova et al., 2020; Kostova & Zaheer, 1999).

The Finnish regulatory perspective showed one version of this institutional logic. Traficom did not require strict use of IMO model courses, as long as providers covered the required STCW content. The regulatory-facing participant explained that *“they have this kind of a pedagogical freeness to plan their courses. Of course, the content has to be what it is there in STCW, but the way they do it, so I think it's good that they can be various”* (I5). This allowed pedagogical flexibility because model-course hours did not always fit Finnish course structures. At the same time, this flexibility did not mean loose approval. Traficom still checked whether providers had an STCW-aligned quality system, programme curriculum, implementation plan, materials, facilities, equipment, simulators, and workshops, followed by site visits where relevant (I5). The Finnish model therefore combined flexibility in course design with a need for documented and inspectable delivery capacity.

Traficom also illustrated why approval does not travel automatically across borders. I5 explained that *“one of the reasons why we are not approving foreign education providers ... they have to follow the Finnish laws and Finnish regulations”* (I5). The same participant noted that Traficom lacked the resources to approve and monitor providers globally. In this setting, foreign approval was constrained by Finnish law, jurisdiction, and monitoring capacity (I5; Kostova & Zaheer, 1999; Scott, 2014).

The Philippine arrangement was more centralised. MARINA was described as the single authority for STCW implementation and enforcement, with provider documents, facilities, instructors, and quality systems specified through mandatory circulars and advisories (I6). As I6 put it, *“there would be no like guessing what will be the compliance. It is specifically stated what document will be requested of them, what document they will be submitting ... how they will be evaluated”* (I6). The evidence therefore showed a more prescriptive documentary process than the Finnish example.

MISMO added a digital layer to this process by linking enrolment, assessment, completion, and certificate issuance, while initial compliance documents could be submitted before inspection (I6). This improved traceability and certificate verification, but it did not replace inspections, qualified personnel, facilities, or quality systems.

The contrast was therefore not between strict and loose regulation. Both settings required evidence and recognised quality systems, but they organised approval differently. Finland allowed more flexibility in course structure, while the Philippine case showed more prescriptive documentary requirements. For a cross-border provider, those differences affected course design, document control, and communication with authorities.

The customer added another verification layer. Before accepting a provider, I2 described checking flag-state approvals, business legitimacy, facilities, industry standing, quality systems, trainee feedback, audits, class observations, and instructor qualifications. The participant summarised the process as *“a mix of everything actually ... another part would be the on-site audits, inspections. But primarily, it's just ... to validate what has been already advised to us by the provider”* (I2). Certificate legitimacy was also linked to recognised issuing authorities and digital verification tools (I2). Customer due diligence therefore sat alongside regulatory approval rather than replacing it.

Local coordination requirements created another constraint. In the Philippine context, foreign client communication often passed through local representatives or agencies. I4

described the expected channel: *“they want the communication to pass through them. So that is the usual flow of communication. We need to coordinate with their local ... representatives”* (I4). Bypassing that route could create friction because local agencies were expected to manage the international counterpart (I4). Technical compliance alone therefore did not remove the need to work through local coordination structures.

Capacity also mattered. I5 referred to shortages of qualified staff, familiarisation time, turnover, and financial pressure on schools. MARINA faced a similar monitoring problem across a large training system; I6 stated that *“the biggest challenge for Marina ... is the scarcity of resources”* (I6). This meant that compliance depended not only on written rules, but on whether authorities and providers had enough capacity to apply them.

Taken together, institutional distance appeared in approval, recognition, customer verification, and local coordination. STCW was the common baseline, but the evidence still had to fit the jurisdiction, authority, and customer involved. Cross-border governance therefore had to manage both collaboration and the conditions under which training was accepted.

4.3 How governance structures mitigate constraints and support alignment

The first mechanism was identifiable responsibility. Several interviews showed that collaboration was easier when customers, partners, and authorities knew which organisation they should approach. Training could involve several actors, but responsibility for the customer relationship still had to remain clear. From the training provider perspective, this was usually linked to contract ownership. A participant described the arrangement as follows: *“the main contract is with us ... we are in charge, we are responsible for the training of course”* (I3). The organisation holding the main contract therefore remained answerable to the customer even when partners carried out parts of the delivery.

This did not mean that one organisation performed every task. It meant that the customer did not have to work out which partner was responsible whenever a question or problem arose. The customer-side interview also showed that a provider operating in several countries was useful only when the customer could verify the delivery location, the quality controls in place, and the organisation responsible if something went wrong (I2). A wider delivery network could therefore offer convenience, but only when responsibility remained visible.

Documentation was another mechanism that appeared throughout the interviews. Providers had to show compliance through course materials, records, approvals, reports, and quality-system documents. A general statement that training followed STCW was not considered sufficient. As one regulatory-facing participant put it, *“it's not just enough that they say that ... but they really have to describe ... What do they really do there?”* (I5). Written material allowed customers, partners, and authorities to see how the course had been designed and what arrangements supported its delivery.

Course-level documents were particularly important. Specifications, lesson plans, learning objectives, instructor requirements, timetables, materials, and update procedures gave the actors involved something concrete to work from. In mandatory STCW-related training, a general partnership agreement did not provide enough detail on its own. One internal participant stressed that *“The course should be the same. The course content should be the same. If there is any changes, updates ... It's important that that is passed around to all”* (I1). The documents attached to the course therefore had to show what would be taught, how delivery would be organised, which requirements applied, and who would update the material when changes occurred. This reduced the possibility that different locations would use the same course title while working from different content or expectations.

The same process appeared in tailor-made training. Before delivery, the customer and provider discussed the required topics, equipment, technical materials, proposed hours,

timetable, and learning objectives (I4). The process was described directly: *“upon forming the course specification, the timetable, and the objectives of the course, we submitted to them for their approval”* (I4). The same participant explained that customers could then provide input on what to add to or remove from the proposal (I4). The resulting documents recorded the agreed scope and gave both sides a basis for checking the delivered course afterwards.

Reporting made the delivery process visible once training had begun. In the focal case, monthly reports for ETO courses recorded completed activities, practical exercises, covered topics, instructors, photos, and other information from the training period (I4). Principals and shipping companies could use these reports to follow the programme without being on-site. The reports also preserved evidence of what had taken place, rather than leaving the customer dependent on a verbal account from the provider.

The need for auditability extended beyond course reports. The customer-side participant described checking flag-state approvals, business legitimacy, facilities, quality systems, trainee feedback, class observations, and instructor qualifications before accepting a provider (I2). Regulatory-facing participants referred to many of the same matters, including curricula, implementation plans, training materials, equipment, simulators, personnel, quality systems, and inspection arrangements (I5, I6). Across the interviews, acceptance depended on whether the relevant requirements and capabilities could be demonstrated with evidence.

For governance purposes, MISMO created a traceable record across enrolment, assessment, completion, and certificate issuance without replacing inspections or other controls (I6).

Meetings and direct contact addressed issues that documents could not settle in advance. I1, I3, and I5 referred to partner meetings, instructor discussions, feedback

channels, and contact with authorities when requirements or delivery problems needed clarification.

Coordination occurred at both management and delivery levels. Management discussions clarified responsibilities, while instructor meetings dealt with issues arising during courses (I3). I3 described *“regular instructor meetings where you can discuss topics ... questions coming up during courses, problems, whatever it could be, so it can be solved straight ... by the instructors”* (I3). Direct contact with authorities was used when approval or documentary requirements were unclear (I5).

The interviews also identified a gap after training ended. I4 stated that *“when they finish training and join on board, we no longer have communication ... that's why it's difficult to track really how they progress or how they perform when they are on board”* (I4). The provider therefore had less visibility of later onboard performance than of course preparation and delivery.

Local interface capacity was useful where requirements could not be managed from outside the jurisdiction. In the Philippines, local representatives or agencies often mediated communication with foreign clients (I4), while sector associations linked training centres, schools, manning agencies, employers, and authorities (I6). Direct authority contact was also important when approval or document requirements needed clarification (I5).

Personal relationships supported these arrangements, particularly when actors identified partners or opened communication. Existing contacts, reputation, and sector networks made it easier to begin discussions and maintain working relationships across organisations and jurisdictions (I1, I3, I6). Their role became more limited once approval, recognition, or formal responsibility was involved.

The interviews did not suggest that trust could replace written evidence. Good relationships could simplify communication and administration, but the customer-side

participant described the relationship as complementary: *“I believe it should go hand in hand. Having a good relationship with the provider, of course, it always comes handy ... But having this certification also gives you ... assurance ... that this certain provider is really doing its due diligence”* (I2). The training-provider participant also regarded formal agreements as necessary because they gave the parties something to refer to when expectations were not met (I3). Trust helped actors work together, while documents and records established what each party had agreed to do.

4.4 Summary of findings mapped to the framework

Figure 3 brings together the patterns reported in Sections 4.1 to 4.3. It links the constraints identified in the material with the arrangements used to manage them and the practical effects reported by participants.

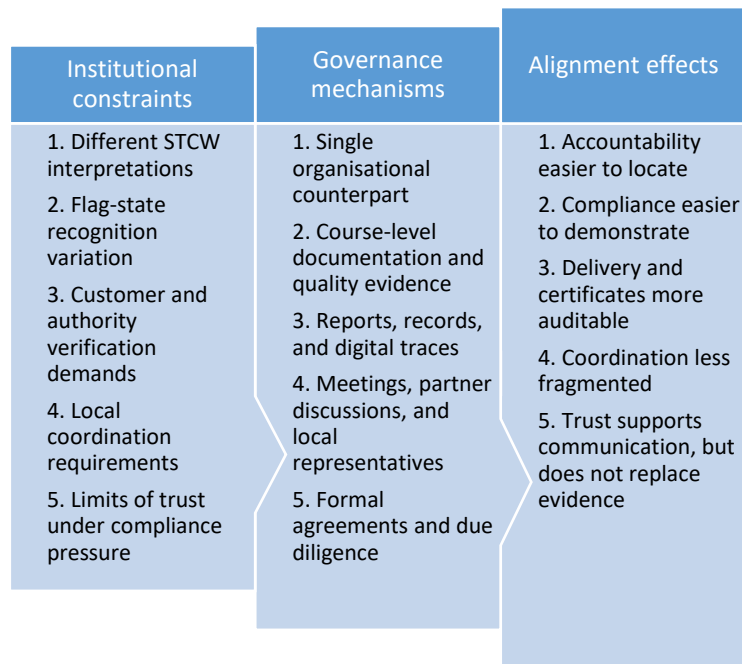


Figure 3: Empirical governance pattern observed in the case

Note. Author's own figure, based on the coded empirical material.

The pattern indicates that formal governance did not remove differences between national approval and recognition systems. Instead, identifiable responsibility,

documentary evidence, coordination routines, and local interfaces made those differences easier to manage within individual training arrangements.

5 Discussion

Chapter 5 interprets the findings through the two theoretical perspectives used in the study. It first considers how the observed governance configuration relates to Network Governance Theory, then examines how institutional distance and legitimacy requirements shaped feasible arrangements. The chapter closes by answering the research question and setting out the governance design supported by the case.

5.1 Interpretation through Network Governance Theory

Interpreted through Network Governance Theory, the pattern observed in the case did not fit neatly into any one of the ideal governance modes described by Provan and Kenis (2008). Responsibility and coordination were not distributed evenly enough for pure Shared Governance, while no separate administrative body governed the network as an NAO. The comparison therefore focuses on the points at which the case resembled each mode, rather than placing it fully within one category.

Shared Governance had limited fit on the dimensions that were clearly visible in the material. The case involved substantial coordination needs, unevenly distributed responsibilities, and repeated demands for accountability and traceable evidence. These conditions made diffuse responsibility difficult to sustain. The study did not, however, establish the network's overall size, the density of trust across all participants, or the degree of goal consensus. The comparison with Shared Governance therefore rests on coordination and accountability demands, not a full test of every contingency identified by Provan and Kenis (2008).

The case more closely resembled Lead Organisation Governance, where contract ownership, customer communication, and compliance-facing responsibility were attached to a particular organisation. Even so, authority was not fully centralised. Delivery still depended on instructors, local partners, and role-specific expertise, while coordination continued across several organisational interfaces.

Some NAO-like functions were also present. Documentation, reporting, quality evidence, course updates, and recurring coordination routines performed administrative work for the wider arrangement. These functions made activity easier to follow and responsibility easier to trace, but they were carried out within the existing structure rather than by a separate administrative organisation. Taken together, the case is described here as light-weight brokered governance with network-level administrative functions. This is an analytical description of the observed configuration, not an additional governance mode within Provan and Kenis' typology.

Trust supported partner identification, communication, and working relationships, but became less sufficient when compliance, recognition, or customer acceptance had to be demonstrated (Jones et al., 1997; Provan & Kenis, 2008).

The case therefore qualifies the treatment of trust in Network Governance Theory within a regulated cross-border setting. The findings suggest greater reliance on process-based confidence alongside interpersonal trust. Personal relationships still helped the parties work together. Once compliance had to be demonstrated, however, those relationships needed documentary and organisational support. Since the evidence comes from a single case, the finding should be read as a narrow qualification of the theory rather than a broad theoretical extension.

5.2 Interpretation through Institutional Theory and institutional distance

The interviews treated STCW as a common reference point, but not as a uniform operating system. Approval, certificate recognition, documentation, provider checks, and local communication differed across jurisdictions. Institutional distance was therefore visible in how the shared standard was applied and accepted, rather than in the absence of a standard itself (IMO, 2017; Kostova & Zaheer, 1999; Scott, 2014).

The provider also faced institutional complexity because it had to satisfy several systems at the same time: STCW, national authorities, flag states, customers, and local intermediaries. A course could meet the international baseline and still require an endorsement, additional approval, or further evidence elsewhere. Here, institutional distance concerns differences between systems, while institutional complexity concerns the need to deal with several of them simultaneously.

This pattern is consistent with Kostova and Zaheer's (1999) argument that legitimacy does not transfer automatically across institutional environments. Flag-state recognition and customer due diligence showed that STCW alignment alone did not secure acceptance; the provider and its evidence still had to be accepted by the authority, customer, or local actor involved.

The empirical material mainly revealed regulative and legitimacy-related pressures. Authorities and customers expected documentary proof, recognised approvals, qualified personnel, suitable facilities, and traceable procedures, while cultural-cognitive differences were less visible in the case.

Formal governance helped manage some of the practical consequences of institutional distance. Clear responsibility, course documents, reports, quality evidence, update routines, and local coordination channels gave the actors a way to record and demonstrate what had been agreed and delivered. These arrangements did not remove the differences between national systems. They made those differences easier to handle by turning some of the resulting uncertainty into procedures and evidence that could be checked.

The theoretical point is therefore narrow. In this case, governance structures translated some consequences of institutional distance into auditable procedures. Recognition and legitimacy remained tied to particular authorities, customers, flag states, and national

systems. The case should therefore be read as a context-specific application of Institutional Theory, not as a general revision of the theory.

5.3 Answer to the research question

The case answers the research question through five linked design elements: identifiable accountability, course-level documentation, audit-ready evidence, recurring coordination routines, and local institutional interface capacity. Their common function is to keep responsibility and evidence visible while allowing delivery and local adaptation to remain distributed.

Identifiable accountability places overall responsibility with one organisation or contracting counterpart. Delivery can be shared, but customers, partners, and regulatory-facing stakeholders still have a clear organisation to approach. This avoids the diffuse accountability problem identified in network governance research (Klijn & Koppenjan, 2016; Provan & Kenis, 2008).

Course-level documentation records the agreed scope of delivery, update responsibilities, and quality controls. It gives partners a common reference when national or organisational interpretations differ.

Audit-ready evidence allows requirements to be checked by actors outside the immediate delivery process. Its governance function is to make compliance demonstrable in the authority or customer setting where recognition is sought (Kostova & Zaheer, 1999; Scott, 2014).

Recurring coordination routines deal with changes and interpretation problems that cannot be fully specified in advance. They allow operational work to remain distributed while giving partners a route for resolving issues during delivery (Jones et al., 1997; Klijn & Koppenjan, 2016).

Local institutional interface capacity gives the network a way to work with the authority, intermediary, or recognition process of the jurisdiction concerned. STCW remains the common baseline, but approval and recognition still follow local requirements (IMO, 2017; Kostova et al., 2020; Kostova & Zaheer, 1999).

Together, the five elements separate overall accountability from individual task performance. Responsibility stays identifiable, while delivery and local interpretation remain with the actors closest to the work.

They do not create universal recognition. Authorities, flag states, and customers still decide whether training and evidence are accepted in their own settings. Demonstrable compliance therefore means keeping the required evidence traceable and available for scrutiny, not replacing jurisdiction-specific approval or customer verification.

6 Conclusions and implications

This thesis examined how formal governance can support cross-border maritime training networks when national differences and compliance demands complicate coordination. The research question focused on how governance can be configured to mitigate differences in approval, recognition, and monitoring practices while supporting demonstrable regulatory compliance (IMO, 2017; Kostova & Zaheer, 1999; Provan & Kenis, 2008).

The case did not fully align with either Shared Governance or a formal Network Administrative Organisation. Instead, it reflected lightweight brokered governance with network-level administrative functions. Accountability remained concentrated in an identifiable organisational counterpart, while instructors, partners, and local actors distributed delivery and operational work. Administrative functions such as course updates, delivery records, and routine coordination remained within the organisations already involved in the arrangement.

Five elements recurred across the case: identifiable accountability, course-level documentation, audit-ready evidence, recurring coordination routines, and local institutional interface capacity. Their value lies in the combination. One organisation remains answerable for the arrangement, while delivery can still be shared and adjusted to local requirements. Regular meetings and other coordination routines helped prevent partners from interpreting or delivering the same course differently. Written records then gave customers and authorities something concrete to check against the agreed scope and actual delivery. Local contacts were still needed because STCW sets a common minimum standard, while approval and recognition remain organised differently across jurisdictions (IMO, 2017; Klijn & Koppenjan, 2016; Kostova et al., 2020).

The study does not propose a fourth governance mode. The case is better understood as a hybrid use of existing arrangements: one organisation remained identifiable, while administrative functions such as documentation and coordination stayed within the existing network. This is consistent with work showing that real networks can combine

features of ideal types (Provan & Kenis, 2008; Wegner et al., 2019). The case also shows why trust was insufficient on its own once compliance and auditability had to be evidenced. Institutional Theory helps explain that limit because legitimacy remains tied to the setting in which it is judged (Kostova & Zaheer, 1999; Scott, 2014).

6.1 Practical implications for GigaMare Europe Oy

For each cross-border course or partnership, GigaMare Europe Oy should name one organisation as the overall owner. That owner would hold the customer relationship, allocate partner responsibilities, control course documents, escalate delivery or compliance issues, and maintain the evidence package. Instructors, partners, and local representatives could still carry out the delivery work. The recommendation follows directly from the customer and training-provider evidence favouring one visible counterpart (I2, I3) and from network-governance arguments for clear accountability between autonomous organisations (Klijn & Koppenjan, 2016; Provan & Kenis, 2008).

Each cross-border course should use a standard governance package covering the course specification and learning objectives, applicable STCW and local requirements, instructor and delivery responsibilities, facilities or equipment, document control, approvals, reporting, and record retention. This would not impose identical delivery across countries. It would give each course a comparable documentary structure while making regulatory, customer, or operational adaptations explicit. This reduces the risk of using the same course title across locations without shared expectations for content, responsibility, or quality (IMO, 2017; Scott, 2014; I1, I4, I5, I6).

A controlled evidence register should accompany the course package. Customer checks and authority enquiries often require several types of evidence at once. GigaMare Europe Oy should therefore keep one register containing provider and partner approvals, the current course version, instructor credentials, attendance and assessment records, delivery reports, completion and certificate records, and any corrective action. Keeping this material together would also make internal reviews easier. The findings indicate that

credibility depended on traceable records, along with recognised approvals, competent instructors, suitable facilities, and functioning quality systems. Broad assurances of compliance were not enough (IMO, 2017; I2, I5, I6). Digital systems improve retrieval, but do not replace qualified personnel, facilities, inspections, or quality controls (I2, I6).

Coordination should not begin only after a problem has appeared. Different forums should deal with different parts of the partnership. Management reviews would focus on contracts, responsibilities, and unresolved risks. Course staff and instructors would discuss timetables, materials, teaching arrangements, and problems arising during delivery. When an issue concerned regulatory interpretation, quality, or certificate recognition, it should move through a recorded escalation route rather than remain in informal exchanges. Documents preserve the agreed position, while meetings allow the parties to respond when conditions change, or requirements are interpreted differently (Jones et al., 1997; Klijn & Koppenjan, 2016; I1, I3, I5).

For every jurisdiction in which it plans to operate, GigaMare Europe Oy should maintain a practical reference file. This would record relevant authority contacts and recognition conditions, as well as any local intermediary, customer check, or required document. STCW provides the common baseline, although provider approval and monitoring still depend on the national system concerned (IMO, 2017; Kostova et al., 2020; Kostova & Zaheer, 1999). The Finnish and Philippine material showed that similar compliance aims were organised through different approval, documentation, and local coordination practices (I4, I5, I6).

At present, the case gives no basis for creating a separate Network Administrative Organisation. Existing roles were already carrying out the administrative work. The more immediate task is to clarify ownership, control course documents, keep evidence accessible, schedule coordination, and maintain local contacts. Creating a separate body would be easier to justify if the current roles could no longer manage the records and coordination involved. The current set-up would also need review if a customer or

authority no longer accepted oversight by the existing team (Provan & Kenis, 2008; van den Oord et al., 2023; Wegner et al., 2019).

Recommendation	Immediate action	Governance problem addressed	Evidence from the study
Assign governance ownership	Name one organisational owner for each course or partnership	Diffuse responsibility	Clear counterparts were preferred by customers and partners (I2, I3)
Standardise course governance	Create one documentary template with recorded local adaptations	Inconsistent course content and responsibilities	Detailed course and approval documentation was required (I1, I4, I5, I6)
Build an evidence register	Centralise approvals, credentials, records, reports, and changes	Weak auditability and slow verification	Acceptance depended on traceable evidence (I2, I5, I6)
Formalise coordination	Establish scheduled reviews and an escalation route	Fragmentation and unresolved interpretation issues	Meetings supported adjustment and problem resolution (I1, I3, I5)
Map local interfaces	Maintain a jurisdiction-specific authority and recognition map	Institutional distance and local access barriers	Approval and coordination differed between jurisdictions (I4, I5, I6)
Delay structural expansion	Retain the current structure and review the	Premature bureaucracy and unnecessary cost	Administrative functions were observed without a separate

	need for an NAO as complexity grows.		NAO; theory supports reviewing structural expansion as complexity grows (Provan & Kenis, 2008; van den Oord et al., 2023).
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Table 6: Practical implementation priorities for GigaMare Europe Oy

Note. Author's own table based on the empirical findings and the interpretation of governance mechanisms through Network Governance Theory and Institutional Theory (Kostova & Zaheer, 1999; Provan & Kenis, 2008).

6.2 Limitations

The study examined one focal organisational arrangement, allowing it to consider governance mechanisms and institutional constraints in detail. The same design also limits the reach of the conclusions. A single-case study supports analytical generalisation to settings with comparable characteristics, rather than statistical claims about an entire sector (Yin, 2018). The governance configuration identified here may therefore be relevant to other compliance-intensive training networks, but the evidence does not establish that it is the most suitable arrangement for maritime training networks more broadly.

The empirical coverage was deliberately role-based rather than numerically representative. I conducted six interviews: two with internal case actors, one with a training-provider or MET representative, one with an industry-side customer, and two with regulatory-facing participants. This provided several analytically relevant viewpoints and reduced reliance on a single organisational perspective (Saunders et al., 2019). Because one or two participants represented each external stakeholder category, the evidence does not support sector-wide claims. No OEM or technology-linked training actor was included because it did not materially affect the final case boundary. The conclusions are therefore better supported for accountability, documentation, regulatory interpretation, and customer verification than for OEM-controlled training, technology partnerships, or wider market behaviour.

The study's timing creates a further limitation. The study examined GigaMare Europe Oy while its governance arrangements were still being established and formalised. The material therefore shows how responsibilities, documents, and coordination practices were being designed, but not how they perform over several years.

Document access was uneven across organisations and jurisdictions. The study used available regulatory and organisational material to check selected interview accounts, but confidential files and gaps in access meant that not every partner procedure or approval process could be examined. The document analysis was therefore supplementary rather than a comprehensive audit (Bowen, 2009). The study also did not assess legal or regulatory compliance; it examined how compliance expectations and auditability affected governance design.

My familiarity with the focal organisation may have influenced access, participant selection, and analytical emphasis. Documentary cross-checking and a traceable coding process helped limit this risk but could not eliminate it (Bowen, 2009; Braun & Clarke, 2006; Saunders et al., 2019).

The interview guides were also theory-informed. Although the main questions were broad, some optional follow-ups explicitly raised accountability, documentation, auditability, formalisation, and trust. This may have directed participants' attention towards mechanisms already present in the theoretical framework. The findings should therefore be read as an analysis of the mechanisms supported by the collected material, not as evidence that these are the only relevant governance mechanisms.

6.3 Future research

The priority is to test the governance configuration beyond a single case. Comparative case studies could examine maritime training networks operating under different flag-state and national approval systems, as well as networks using shared, lead-organisation,

and NAO-like arrangements. Including both established and newly formed networks would also make it possible to compare how governance changes with maturity. A design of this kind would show whether the five elements identified in this thesis recur elsewhere and whether their importance changes as institutional distance becomes greater or smaller (Kostova et al., 2020; Kostova & Zaheer, 1999; Provan & Kenis, 2008; Yin, 2018).

Longitudinal research could follow GigaMare Europe Oy, or a similar provider, as the network develops. It could track breakdowns in coordination, missing documentation, approval delays, customer assessments, and corrective actions over time. This would move the analysis from governance design to whether the arrangements continue to work when used repeatedly (Klijn & Koppenjan, 2016; Provan & Kenis, 2008; Yin, 2018).

A particularly relevant theoretical question concerns when lightweight brokerage stops being sufficient. The present case showed administrative functions without a separate administrative organisation. Future studies could therefore examine when network size, partner heterogeneity, institutional distance, or audit demands begin to exceed what existing organisational roles can manage. The question is therefore not simply whether an NAO would improve coordination. A separate body may become necessary if the current roles can no longer keep up with the network's coordination, records, and oversight demands (Provan & Kenis, 2008; van den Oord et al., 2023; Wegner et al., 2019).

Future research could also examine how digital systems redistribute control over records: who owns the data, who can access it, and whether digitisation reduces disputed certificates and missing evidence or creates new dependencies. The present case only showed that digital tools support traceability; they did not replace qualified staff, facilities, inspection, or quality assurance (IMO, 2017; I2, I6).

Research could then extend beyond compliance and coordination to outcomes such as educational consistency, trainee competence, onboard performance, employer

confidence, and commercial scalability. Those outcomes were outside the present study, so their relationship with the proposed governance arrangements remains untested.

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Appendices

Appendix 1. The declaration regarding the usage of AI in the thesis

I used ChatGPT during the thesis process (GPT-5.1 to GPT-5.5, and later GPT-5.6 Sol) to brainstorm the topic, organise the thesis structure, and search for relevant academic literature.

Because the topic is narrow, I also used ChatGPT to find search terms and publications related to maritime training, maritime networks, and STCW. I searched for each publication ChatGPT suggested separately. I used only sources I could find and verify through the University of Vaasa library, the publisher, DOI information, or another academic database. I decided which suggestions were relevant and adapted the structure and topic choices myself.

Appendix 2A. Semi-structured interview guide for regulatory-facing stakeholders

Target participants: Regulatory authorities and other regulatory-facing stakeholders involved in maritime training recognition, certification, auditability, or compliance interpretation.

Examples: MARINA, Traficom, and other relevant flag-state or recognition-related authorities.

Estimated duration: 30 to 40 minutes

Format: Semi-structured interview

Note: The interview guide was used flexibly. Follow-up prompts were used selectively depending on the participant's role, expertise, and available time.

Section	Main Question	Optional Follow-ups
A. Context and role	Q1. Can you briefly describe your organisation's role in overseeing maritime training and certification, and your own role within that process?	How long have you been in this role? Does your work focus specifically on STCW recognition, or more broadly on maritime safety regulation?
B. Recognition process and decision basis	Q2. How does your organisation assess or handle recognition requests from foreign maritime training providers, and what kinds of evidence or documentation matter most in that process?	Are there formal bilateral or other recognition arrangements in place? What documents or quality assurance materials are most important when assessing a provider?
C. Common shortcomings and friction points	Q3. In your experience, where do cross-border training providers most commonly fall short when seeking recognition or acceptance in your jurisdiction?	Do the most common issues relate to documentation, curriculum standards, instructor qualifications, simulator specifications, or quality assurance? Do you observe recurring patterns across providers from different jurisdictions?
D. Institutional distance in practice	Q4. How do differences in national interpretation or implementation of the STCW Code create practical complications for cross-border training partnerships?	Can you give a concrete example of a requirement that is interpreted differently between jurisdictions? How are such interpretation gaps usually managed in practice?
E. Governance expectations	Q5. From a regulatory standpoint, what governance or organisational arrangements make a cross-border maritime training provider or network easier to oversee, more auditable, and more credible?	Would a single contact point for compliance matters be useful? Would standardised documentation across partner sites help? Is there a preferred accountability structure, such as a single, clearly responsible legal entity?

F. Governance failure modes	Q6. What governance or compliance mistakes do you most often see in cross-border training arrangements, especially in newer or less formalised providers?	Do problems typically arise from unclear accountability, weak documentation, fragmented quality systems, or informal arrangements that are not properly documented?
G. Optional follow-up, if time allows	Q7. Have you encountered any cross-border training networks or partnership arrangements that worked particularly well from a compliance perspective? What made them work?	Were responsibilities clearly distributed across partners? Were formal agreements, standard procedures, or dedicated coordination roles in place?
H. Optional follow-up, if time allows	Q8. Do you expect digitalisation, regulatory harmonisation, or other developments to affect cross-border maritime training recognition in the coming years?	Do you expect changes in how compliance is demonstrated, documented, or audited?
I. Optional case-relevant closing prompt	Q9. Based on your experience, what advice would you give to a newly established cross-border maritime training provider when designing its governance and compliance arrangements?	What is the first thing such a provider needs to get right? What early-stage mistakes should it avoid?

Appendix 2B. Semi-structured interview guide for training providers / MET partners

Target participants: Maritime training providers and MET partner organisations involved in cross-border training delivery, coordination, quality assurance, or recognition-related collaboration.

Examples: Aboa Mare, GMC, GigaMare Philippines, and other directly relevant training or partner organisations.

Estimated duration: 30 to 40 minutes

Format: Semi-structured interview

Note: The interview guide was used flexibly. Follow-up prompts were applied selectively depending on the participant's role, expertise, and available time.

Section	Main question	Optional follow-up
A. Organisational context	Q1. Can you briefly describe your organisation's role in maritime training and the extent to which you work with partners across borders?	Which countries or flag-state contexts are most relevant to your operations? How significant are cross-border partnerships in your current activities?
B. Partnership background	Q2. How did your current cross-border partnership arrangement come about, and what were the main reasons for entering it?	Did you initiate the collaboration through formal channels or personal contacts? Were the main drivers commercial, regulatory, educational, or strategic?
C. Decision-making and accountability	Q3. How are decisions made within your cross-border training partnerships, who is responsible for what, and how are disagreements resolved?	Is there a lead organisation or coordinating actor? Are decisions made jointly or does one partner have final authority? Can you recall a situation where partners disagreed on something important?
D. Formal governance and documentation	Q4. What formal agreements, procedures, or documents govern the partnership, and how clearly do they define roles, compliance responsibilities, and accountability?	Do you use MoUs, contracts, or quality agreements? How often do you review or update them? Do they clearly specify responsibility for compliance and quality assurance?
E. Coordination and quality assurance in practice	Q5. How do you manage day-to-day coordination and ensure that training standards are applied consistently across partner organisations?	What coordination mechanisms do you use, such as meetings, shared platforms, or designated coordinators? Do you use shared quality systems, joint audits, or site visits? Who is responsible

		if training at one site does not meet the expected standard?
F. Institutional distance and friction	Q6. Where do you see the biggest practical differences between operating in your home country and working with partners in other jurisdictions, and how do those differences affect the partnership?	Do the main differences relate to regulation, pedagogy, assessment standards, administration, accreditation, or documentation requirements? Have you had to adapt your own practices because of partner-country requirements?
G. Governance strengths and failure points	Q7. Looking at your experience so far, what governance features make cross-border training partnerships work well, and what tends to create the biggest problems?	Are reliable partnerships built more through formal procedures, shared quality expectations, clear accountability, personal trust, or reputation? What tends to go wrong when partnerships become difficult to manage?
H. Optional follow-up, if time allows	Q8. If you could change one aspect of how your current cross-border partnerships are governed, what would it be?	Would you prefer more central coordination or more autonomy for partners? Would greater formalisation help, or would it create unnecessary rigidity?
I. Optional follow-up, if time allows	Q9. Based on your experience, what kind of governance arrangement is most suitable for a cross-border maritime training network involving multiple countries and partner organisations?	Where should final compliance responsibility sit? What role should digital platforms or shared systems play in coordination?

Appendix 2C. Semi-structured interview guide for industry stakeholders/customers

Target participants: Shipping companies, crewing firms, training buyers, or other customer-side actors involved in evaluating, approving, or procuring maritime training services.

Examples: Shipping companies and other user-side organisations directly relevant to the focal case.

Estimated duration: 30 to 40 minutes

Format: Semi-structured interview

Note: The interview guide was used flexibly. Follow-up prompts were applied selectively depending on the participant's role, expertise, and available time.

Section	Main question	Optional follow-up
A. Training procurement context	Q1. Can you briefly describe how your company manages maritime training procurement and seafarer certification requirements?	Is training procurement centralised or distributed across fleets, business units, or regions? Does your company work with a fixed set of approved providers or assess providers on a case-by-case basis?
B. Provider qualification criteria	Q2. What does your company require from a maritime training provider before it can be considered credible, compliant, and acceptable for use?	Are specific accreditations, flag-state approvals, quality management systems, or prior performance records especially important?
C. Verification and auditability	Q3. How does your company verify that training delivered by a provider, especially one operating in another country, meets your standards and compliance expectations?	Does your company conduct its own checks or rely on flag-state, classification society, or other external approvals? What documentation or auditability matters most?
D. Handling unfamiliar or unvetted providers	Q4. How do you handle situations where a seafarer presents training from a provider your company has not previously vetted or worked with?	Do you have a process for assessing new providers? Does the jurisdiction or approving authority affect whether you accept the training?
E. Confidence in cross-border provider networks	Q5. If a training provider operates across multiple countries through a network of partner organisations, how does that affect your confidence in its consistency, accountability, and compliance?	Does a multi-country structure raise concerns about variation in standards? What would such a network need to demonstrate to be seen as reliable?

F. Governance preferences from the customer perspective	Q6. What kinds of governance or organisational arrangements give your company the most confidence in a training provider or training network?	Are features such as a clear point of accountability, standardised documentation, independent quality oversight, or transparent reporting particularly important?
G. Main strengths and failure points	Q7. From your perspective, what tends to make cross-border training arrangements work well, and what most often causes concern or rejection?	Do problems usually relate to weak documentation, inconsistent standards across sites, unclear accountability, limited auditability, or over-reliance on informal trust?
H. Optional follow-up, if time allows	Q8. In practice, what role do long-standing relationships, reputation, or personal trust play in supplier decisions compared with formal compliance credentials?	Can informal trust ever compensate for weaker formal evidence, or does formal compliance always take priority?
I. Optional follow-up, if time allows	Q9. Do digital systems, simulator-based delivery, or other technology-enabled forms of training change what your company expects from providers in terms of documentation, oversight, or auditability?	Are digital audit trails, remote oversight, or other governance safeguards becoming more important?
J. Optional follow-up, if time allows	Q10. What would a newly established cross-border maritime training provider need to demonstrate before your company would seriously consider using it?	What would the first proof points be? Is there a formal onboarding or vetting process such a provider would need to pass?

Appendix 2D. Semi-structured interview guide for OEM / technology-linked training actors

Target participants: OEM and technology-linked training providers involved in delivering proprietary maritime equipment, simulator, or technology training through their own centres or external partner arrangements.

Examples: Wärtsilä, ABB Marine, and other directly relevant OEM or technology-linked training actors.

Estimated duration: 25 to 35 minutes

Format: Semi-structured interview

Note: This interview guide was prepared but was not used because no OEM or technology-linked actor was included within the final case boundary.

Section	Main question	Optional follow-up
A. Organisational context	Q1. Can you briefly describe how your organisation's training function is structured and how it relates to your broader equipment or technology business?	Is training a stand-alone business unit or embedded in sales, service, or after-sales support? Do you mainly deliver training in-house, through your own centres, or through external partners?
B. Partnership model	Q2. How does your organisation collaborate with maritime training institutions or external training centres when delivering your programmes?	Are these collaborations mainly formal, contractual, and standardised, or more flexible and relationship-based? What does a typical partner arrangement look like?
C. Quality control and partner oversight	Q3. How do you maintain the quality and consistency of your training when it is delivered through external partner organisations rather than entirely in-house?	Do you impose curriculum standards, trainer requirements, audit rights, or certification rules on partners? What happens if a partner does not meet the required standard?
D. Decision-making and authority	Q4. How are decisions made in these partnership arrangements, especially regarding curriculum, delivery standards, trainer requirements, and certification?	Does your organisation retain central control, or do partners have meaningful autonomy? Is there a dedicated oversight or governance role? How are disputes or disagreements handled?
E. Cross-border adaptation and constraints	Q5. How does operating across countries complicate your training governance, especially when local regulatory, market, or institutional requirements differ from your own standards?	Have local requirements ever conflicted with your proprietary training standards? How do you handle market-specific adaptation without weakening brand, quality, or technical consistency?

F. Main strengths and failure points	Q6. From your experience, what tends to make OEM training partnerships work well, and what most often causes friction or failure?	Do problems usually arise from quality misalignment, weak partner capability, unclear contractual boundaries, commercial disagreements, or cross-border adaptation issues?
G. Optional follow-up, if time allows	Q7. How important are contractual controls, intellectual property protections, and content-use restrictions in governing partner delivery arrangements?	Are there clear limits on how partners may adapt, reuse, or localise your training content, software, or technical data? Have IP boundaries ever become unclear in practice?
H. Optional follow-up, if time allows	Q8. How does your organisation position its training in relation to STCW-based or institutionally accredited maritime education and training?	Do customers expect OEM training to align with wider regulatory frameworks, or do they treat it as a separate category? Have STCW-related requirements ever affected how your training is delivered or recognised?
I. Optional follow-up, if time allows	Q9. What kinds of governance arrangements make an external training network easier for your organisation to work with?	Are features such as a clear contracting entity, defined accountability, standardised documentation, or shared digital infrastructure especially valuable?