



OrCA Expansion Guidebook:

**An Informed Guide for
Scaling Operations
Responsibly & Sustainably**



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1. Executive Summary

OrCA operates within the marine plastics recycling sector, specialising in the recovery and processing of fishing nets through deployable, containerised recycling units managed by a decentralised global partner network. The primary risks facing this model are not technical but human, cultural, and relational, which may arise from coordinating diverse external partners across varied contexts. To address these risks, this guidebook sets out key international standards, local legal compliance checks, and practical governance tools for OrCA and partners to follow. A flexible standardisation framework distinguishes between globally non-negotiable requirements (covering safety, quality, environmental performance, and material traceability) and areas where local adaptation is permitted, ensuring consistency without cultural imposition. Engagement strategies are tailored to OrCA's three core partner groups (entrepreneurial operators, government bodies and port authorities, and NGOs), each approached according to their distinct motivations, decision-making structures, and working norms. Together, these frameworks equip OrCA to scale responsibly and sustainably, maintaining operational integrity across all deployment regions while preserving the local flexibility essential to partner participation.

2. Risk Assessment

2.1. Industry-Level Risks

OrCA operates within the marine plastics recycling and circular economy sector, specifically targeting end-of-life fishing nets, a subset of ocean-bound plastic waste. This segment is widely recognised as structurally complex due to fragmented collection systems, weak reverse logistics, and reliance on local actors such as fishing communities, ports, and informal waste handlers. According to a submission to the United Nations Ocean Conference, fishing gear waste is often inadequately managed due to limited infrastructure, leading to disposal through landfill, incineration, or ocean abandonment. This highlights a fundamental supply chain coordination gap, where waste generation and industrial recycling demand are geographically and operationally disconnected.

Within this context, OrCA's model is distinct in that it attempts to delocalise recycling capacity through deployable, containerised systems, enabling processing at the point of waste generation. However, this innovation shifts complexity from logistics to partner coordination and operational execution, as the system relies on externally owned and operated units rather than centralised control.

Based on this structure, several operational risks emerge:

2.1.1. Supply Chain Fragmentation Risk

The sourcing of fishing nets is inherently decentralised and dependent on local collection behaviours. This creates variability in both volume and material quality, which may disrupt consistent production flows. Fragmented supply chains are widely recognised as a constraint in circular economy systems, particularly in marine waste recovery (UN Ocean Conference, 2025).

2.1.2 Technology Adoption Risk

OrCA's system requires correct technical operation at the local level. However, partners may vary significantly in technical capability. Research on knowledge transfer suggests that performance declines when system complexity exceeds user capability, particularly in decentralised environments (Argote & Ingram, 2000).

2.1.3. Partner Capability and Alignment Risk

Given the diversity of partner types, there is likely to be variation in: operational competence, resource availability, commitment to standards. From a Strategic Human Resource Management perspective, organisational performance is contingent on alignment between people and system requirements (Boxall & Purcell, 2016). Hence, misalignment may lead to inconsistent implementation across locations.

2.1.4. Incentive Misalignment Risk

Partners operate under fundamentally different motivations:

- entrepreneurs prioritise financial return,
- governments prioritise regulatory compliance,
- NGOs prioritise environmental and social impact.

This divergence creates a risk of inconsistent prioritisation of operational standards, particularly where economic pressures conflict with safety or ESG requirements.

2.1.5. Trust and Governance Risk

As a decentralised network, OrCA cannot rely solely on hierarchical control mechanisms. Instead, it must balance trust-based relationships with minimum enforceable standards. Network governance literature suggests that such systems are vulnerable to breakdown if trust is not supported by clear structures and accountability mechanisms (Gulati et al., 2000).

2.2. Cultural and Geographical Risk Considerations

Beyond structural and operational risks, OrCA's global expansion introduces significant cultural and geographic variability, particularly given its focus on fishing communities across diverse regions.

2.2.1 Cultural Variability in Work Practices

Fishing communities and local operators differ in:

- attitudes towards hierarchy (power distance),
- communication styles,
- approaches to authority and compliance,
- perceptions of responsibility and accountability.

These differences can directly influence how policies and systems are interpreted and enacted. Research in organisational behaviour demonstrates that cultural context significantly shapes workplace behaviour, cooperation, and compliance (Chow, Lowery & Knowles, 2021).

For example:

- In high power-distance cultures, workers may avoid questioning unsafe practices.
- In low formalisation contexts, procedures may be adapted informally, reducing consistency.

2.2.2 Safety Perception and Compliance Risk

A critical risk area is health and safety compliance, particularly as OrCA aims to align with standards such as ISO 45001. In many regions, safety may be viewed as:

- situational rather than procedural,
- secondary to economic necessity,
- informally managed rather than formally enforced.

This creates a risk of inconsistent adherence to safety protocols, which could lead to:

- operational incidents,
- legal liabilities,
- reputational damage.

From a Sustainable Work Design perspective, effective systems require alignment between task requirements, worker capabilities, and environmental conditions (Parker, 2014). Misalignment in any of these areas increases the likelihood of unsafe or inefficient practices.

2.2.3 Regulatory and Geographical Differences

Operating across jurisdictions introduces additional complexity in:

- labour laws,
- environmental regulations,
- certification requirements,
- infrastructure availability.

For example:

- Some regions may lack regulatory enforcement capacity.
- Others may impose stringent compliance requirements that increase operational costs.

This variability creates a risk of inconsistent legal compliance and operational feasibility, particularly during early-stage expansion.

2.2.4 Cultural Autonomy vs Standardisation Tension

A central theme in OrCA's model is the desire to maintain local autonomy while enforcing global technical standards. This reflects a well-documented strategic tension between:

global integration (standardisation for efficiency and control), and local responsiveness (adaptation for cultural and contextual relevance) (Bartlett & Ghoshal, 1989).

If not managed effectively, this tension can result in:

over-standardisation → reduced partner engagement and resistance,
over-flexibility → loss of system integrity and performance consistency.

2.2.5 Diversity as Both Risk and Opportunity

While cultural diversity introduces risk, it also presents an opportunity for:

- locally optimised practices,
- stronger community engagement,
- innovation through contextual adaptation.

However, diversity contributes positively only when supported by clear guiding principles and inclusive frameworks, rather than rigid or culturally insensitive policies (Dobbin & Kalev, 2016).

2.3. Analytical Insight and Priorities

The primary risks facing OrCA are not purely technical or operational. Rather, they are:

Human, cultural, and relational risks arising from coordinating a decentralised network of diverse external partners across global contexts.

This suggests that successful scaling will depend on:

- clearly defined non-negotiable standards,
- structured yet flexible partner engagement frameworks, and
- the ability to translate global objectives into locally meaningful practices.



3. Standards and Legal Requirements

3.1. Purpose of Standards

Building on the risks previously identified, the following section translates these risks into practical standards, legal checks, and governance tools. For OrCA, standards and legal requirements are not only compliance documents; they are governance tools for managing a decentralised global partner network. Since OrCA does not aim to impose a uniform corporate culture, standards provide a shared operating baseline for safety, quality, environmental performance, and material traceability, while still allowing local flexibility.

3.2 Three-layer structure for standards and legal requirements:

For OrCA, standards and legal requirements can be organised into three connected layers:

Layer	Key Questions	What is included	Relevance to OrCA
Formal Standards	What must remain globally consistent?	ISO 9001, ISO 14001, ISO 45001, GRS, MMS	Defines the minimum baseline for quality, environmental performance, health & safety, and material traceability across partner-operated units
Local Legal Requirements	What must be checked before local implementation?	Occupational health and safety law, environmental permits, waste handling rules, machinery safety, data protection, labour/contractor and anti-bribery law	Ensures each local deployment complies with the legal requirements of its specific jurisdiction
Governance Requirements	How can OrCA ensure partners follow the requirements?	Partner Code of Conduct, due diligence checklist, capability assessment, training records, audit process, incident reporting, corrective action process	Turns standards and legal obligations into practical tools, responsibilities, and monitoring mechanisms for a decentralised partner network.

3.3. Formal Standards Overview: Global Operating Guidelines

Formal standards should define the non-negotiable requirements that all OrCA partners must meet, regardless of location, partner type, or local working culture. These standards should not be used to impose a uniform corporate culture.

Instead, they should define the minimum technical, safety, environmental, and traceability requirements needed to protect OrCA's operating model.

OrCA functions within an international network of decentralized partners, including NGOs, port administrations, governments, private entrepreneurs, and local community groups operating under diverse legal and cultural systems.

Standard	What it controls	Relevance to OrCA
ISO 9001	Quality management	Ensures recycled PA6 output is consistent enough for industrial buyers and supports SOPs, output checks, batch records, and corrective action.
ISO 14001	Environmental management	Protects the credibility of OrCA's environmental claims by guiding waste storage, water-use control, contamination control, and environmental incident reporting.
ISO 45001	Health and safety	Supports safe operation of machinery, net handling, maintenance, PPE use, risk assessment, and emergency procedures in port-side environments.
Global Recycled Standard (GRS)	Recycled material traceability	Helps verify the source of fishing nets, batch movement, chain-of-custody records, and recycled-content claims.
Materials Matter Standard (MMS)	Future sustainability evidence	Acts as a forward-looking reference for responsible sourcing, environmental safeguards, social safeguards, community respect, and buyer-facing sustainability evidence.

3.4 Local Legal Requirements: Jurisdiction-Specific Checks

Because OrCA aims to deploy partner-operated recycling units across different jurisdictions, formal standards alone are not sufficient. ISO, GRS, and MMS can define global operating baselines, but each local implementation must also comply with the legal requirements of the specific country, port authority, or municipality in which the unit operates. Therefore, the guidebook should not attempt to provide one universal legal answer. Instead, it should require each partner to complete a local compliance check before deployment.

Local legal requirements to be checked before deployment:

1. Occupational Health & Safety Law

Workplace safety, risk assessment, training, incident reporting, and emergency procedures.

2. Machinery & Work Equipment Safety

Equipment inspection, maintenance, operator competence, safe use.

3. Environmental Permits

Recycling operations, emissions, wastewater, noise, site activities.

4. Waste Handling Regulations

Collection, storage, transport, processing, disposal of end-of-life fishing nets.

5. Labour & Contractor Law

Employees, contractors, volunteers, community workers.

6. Anti-bribery & Conflict of Interest

Gifts, payments, public officials, procurement, port access, conflicts of interest.

7. Data Protection Law

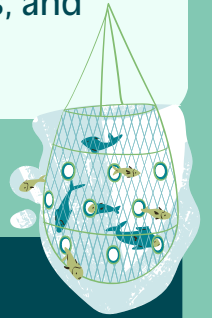
Collection, storage, sharing, reporting of operational, partner, or worker data.

8. Cross-border Material Movement

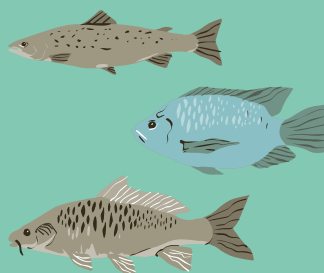
Customs, waste shipment, material transfer between jurisdictions.

3.5. Governance Requirements: Making Standards Practical

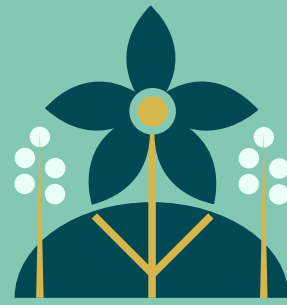
Standards and legal checks only become useful when translated into practical governance tools. Since OrCA uses a light-touch partner model, these tools help clarify expectations, check partner readiness, monitor key requirements, and respond when problems occur.



Governance Tool	Purpose
Partner Code of Conduct	Sets minimum expectations for safety, respect, anti-bribery, environment, and ethics.
Due Diligence Checklist	Checks whether a partner is suitable before deployment.
Capability Assessment	Assesses staff, skills, infrastructure, and management capacity.
Local Compliance Checklist	Confirms local legal requirements before operations begin.
Training Records	Shows operators are trained and authorised.
Traceability & Incident Forms	Records batch movement, quality checks, and incidents.
Audit & Corrective Action	Reviews compliance and tracks required corrective actions.



4. Policy Development



4.1. Introduction

OrCA functions within an international network of decentralized partners, including NGOs, port administrations, governments, private entrepreneurs, and local community groups operating under diverse legal and cultural systems.

This results in several operational, environmental, and governance risks, including variations in the quality of materials, non-compliance with safety regulations, fragmented supply chains, and differences in the capabilities of various partners.

As a means of mitigating the associated risks, OrCA needs to have a dynamic governance system, which ensures the same high standards on a global scale, including safety, quality, traceability, and ethics, while allowing for flexibility in terms of how those standards are applied by local partners.

The balance between the two is crucial as either extreme may lead to a lack of participation or inconsistency.



4.2. Policy Risk Assessment

Purpose

The purpose of this policy is to ensure that risks across OrCA's decentralised partner network are identified, assessed, controlled and reviewed before and during operations. This policy supports OrCA's wider standards and legal requirements framework, particularly the need to maintain consistent safety, quality, environmental and traceability standards while allowing local operational flexibility.

Scope

This policy applies to all OrCA partner-operated recycling units, including activities involving fishing net collection, storage, sorting, processing, machinery use, maintenance, batch recording, environmental controls and material movement.

Policy statement

All partners must complete a documented risk assessment before operating any OrCA recycling unit. No site should begin operations until major risks have been assessed, suitable controls are in place, and relevant local legal requirements have been checked.

Risk assessments must cover, at minimum:

- health and safety risks;
- environmental risks;
- quality and material contamination risks;
- traceability and batch recording risks;
- machinery and operator competence risks;
- local legal and regulatory risks;
- partner capability and governance risks.

This is necessary because OrCA's model depends on decentralised local partners, where risks may arise from supply chain fragmentation, different levels of partner capability, cultural differences, inconsistent safety practices and varying legal requirements.

Responsibilities

OrCA is responsible for providing the risk assessment template, setting minimum standards, reviewing high-risk issues and deciding whether a partner site is ready to operate.

Local partners are responsible for completing site-specific risk assessments, checking local legal requirements, training operators, maintaining records, reporting incidents and correcting identified risks.

Operators are responsible for following approved procedures, using required PPE, reporting unsafe conditions and stopping work where there is an immediate safety, environmental or legal risk.

RISK ASSESSMENT TABLE

Area	Assessment
Health & Safety	Machinery use, PPE, manual handling, emergency response, slips/falls, contaminated net
Environment	Net storage, waste handling, wastewater, spills, contamination, local permits
Quality	Material contamination, output consistency, process changes, failed batches
Traceability	Source records, batch identification, chain of custody, rejected materials
Legal compliance	Local safety law, environmental permits, labour rules, anti-bribery, data protection
Partner Capability	Training, staffing, supervision, technical ability, record-keeping capacity

RISK RATING TABLE

Rating	Meaning	Action Required
Low	Minor risk, controlled through normal procedures	Monitor
Medium	Could affect safety, quality, environment or compliance	Control measures required
High	Serious risk if not controlled	Action required before work continues
Critical	Immediate danger, legal breach or major environmental/quality risk	Stop work until resolved

Control measures

Partners must put controls in place before operations begin. Controls may include training, PPE, operating procedures, maintenance checks, emergency procedures, environmental controls, batch records, supervision or corrective action plans.

Local adaptation is allowed, but it must not weaken OrCA's minimum requirements. For example, training may be translated or delivered in a culturally appropriate way, but the underlying safety, quality, environmental and traceability requirements must remain consistent.

Records

Partners must keep the following records:

- completed risk assessment;
- local compliance checklist;
- operator training records;
- machinery inspection records;
- PPE records;
- batch and traceability records;
- incident and near-miss reports;
- corrective action records.

These records support the governance tools already identified in the standards and legal requirements section, such as training records, incident reporting, audits and corrective action.

Review

Risk assessments must be reviewed:

- before operations begin;
- every six months;
- after an accident, near miss, environmental incident or quality failure;
- when equipment, staff, site conditions or legal requirements change;
- when audit findings show non-compliance.

Pause rule

Operations must stop immediately if there is a serious safety risk, environmental incident, machinery fault, missing legal approval, untrained operator, or loss of material traceability. Work may only restart once the risk has been reassessed and corrective action has been completed.

4.3 Flexible Standardisation Framework

Level 1- Global non-negotiables

Requirements that every partner must follow

Eg: Safety, quality, environment, traceability, ethics



Level 2- Local Adaptation Areas

Where partners can adjust implementation.

Eg: Lanaguage, culture, local law

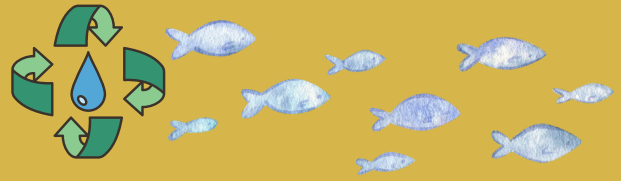


Level 3- Governance tools

Mechanisms used to monitor and support compliance

Eg: Training, audits, reporting, corrective action

4.4 Policy Design Principles



Principle	Core Idea	Practical Application for OrCA
Principle 1: Minimum standards, not uniform culture	OrCA should not impose one global workplace culture across all partners. Instead, it should establish minimum standards that protect the integrity of the operating model.	Standards should cover safety, environmental management, material quality, traceability, and ethical conduct while still allowing local operational flexibility.
Principle 2: Local law comes first	OrCA's internal policies should never replace local legal requirements.	Before operations begin, local partners should check applicable laws relating to occupational safety, environmental permits, waste handling, machinery use, labor obligations, and data protection.
Principle 3: Practical and simple implementation	Policies should be easy for local partners to understand and apply.	Policies should be supported through simple templates, checklists, training materials, and reporting forms, particularly in decentralized or low-resource environments.



Conclusion

Overall, this policy framework helps OrCA manage the main risks created by its decentralised partner model without removing local flexibility. By requiring risk assessments, clear responsibilities, records, and reviews, OrCA can maintain consistent safety, environmental, quality and traceability standards across different locations. This supports the wider standards and legal requirements framework while ensuring that local partners remain accountable for identifying and controlling risks before and during operations.

5. Engagement & Community

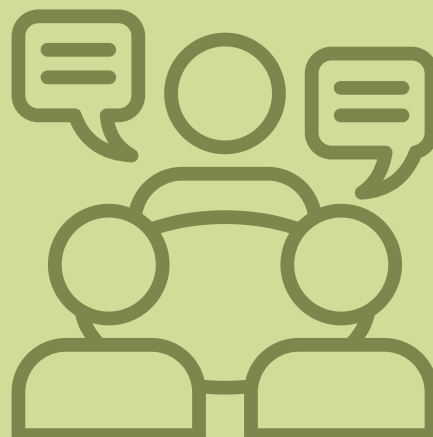
5.1 Introduction

The company's partner ecosystem spans three primary groups:

- Entrepreneurial operators (profit-driven, execution-focused),
- Government bodies and port authorities (compliance-driven, policy-oriented),
- Non-governmental organisations (NGOs) (impact-driven, community-oriented).

This creates a multi-actor network structure, rather than a traditional firm hierarchy. Such structures are typically characterised by interdependence and reliance on relational governance, rather than formal authority (Gulati, Nohria & Zaheer, 2000).

Each partner group, and within those groups, working cultures can differ significantly. OrCA shall not impose on those to create a new social operating system. Rather, the following engagement and community plans (4.3, 4.4) are designed to support community growth, build trust, and enable each group to participate in the network on terms aligned with their own motivations and working norms.



5.2. Group Definitions

Group	Entrepreneurial Operators	Government Bodies and Port Authorities	Non-Governmental Organisations (NGOs)
Definition	Independent business operators or local commercial partners that own, operate, and manage OrCA's recycling units within regional contexts. Actors may include waste management firms, fishing cooperatives, or recycling entrepreneurs	Public-sector institutions responsible for marine regulations, port operations, environmental compliance, waste management oversight, & regional economic/ ecological development.	Mission-driven organisations working in areas including marine conservation, community development, environmental advocacy, and waste management, supporting mobilisation and social engagement.
Expectations	<ul style="list-style-type: none"> Reliable technical support & clear operational guidelines Transparent commercial arrangements, incl. clear material purchase or revenue-sharing terms Timely onboarding with minimal overhead Respect for existing local business knowledge & operational autonomy Prompt resolution of equipment issues or operational problems 	<ul style="list-style-type: none"> Compliance with environmental and waste regulations. Reliable reporting and traceability of materials. Long-term operational stability and reduced environmental risk. 	<ul style="list-style-type: none"> Genuine collaboration with local communities Alignment with environmental and social objectives Inclusion in decision-making and programme development Transparent reporting on environmental and social outcomes
Working Patterns	<ul style="list-style-type: none"> Operational autonomy, favour concise guidance Likely to communicate and prefer action-oriented, visual instructions. Decision-making is often concentrated in one or few individuals rather than committees . Responsive to peer learning & examples from other operators rather than top-down directives . 	<ul style="list-style-type: none"> Process-driven and policy-oriented. Decision-making may include multiple departments and extended approval timelines. Formal communication and reporting prioritised. Engagement is often linked to public accountability and regulatory obligation. 	<ul style="list-style-type: none"> Collaborative and relationship focused. Often reliant on partnerships, grants, and volunteer engagement Community engagement activities may operate on project-based timelines Emphasis on consultation, inclusivity, and education
Culture/ Key Motivations	<ul style="list-style-type: none"> Revenue generation and business growth. Operational success. Independence and autonomy in decision-making. Interest in commercial opportunities linked to sustainability markets. 	<ul style="list-style-type: none"> Public legitimacy & measurable sustainability outcomes. Reduce of marine pollution & illegal waste disposal. Legal compliance & institutional risk mitigation. Alignment with regional environmental policy targets & international sustainability commitments. 	<ul style="list-style-type: none"> Environmental and social impact Community empowerment and behavioural change Long-term ecological sustainability Advocacy, awareness-building, and stakeholder participation

Cross Group Similarity:

While each partner group brings distinct motivations and working norms, all three share a foundational stake in OrCA's long-term operational success, whether through commercial returns, sustained environmental outcomes, or ongoing community engagement. This common ground helps OrCA build trust across the network, even where day-to-day engagement approaches must differ.

5.3. Group-Specific Engagement Plan

Each engagement plan below is tailored to the distinct motivations, working norms, and decision-making structures of each partner group. OrCA's role is to enable and support rather than to direct. The engagement plan, following the SMART framework (specific, measurable, attainable, relevant, time-bound), therefore focuses on the quality and consistency of OrCA's own actions, not on prescribing partner behaviours or timelines. The time-bound element therefore reflects when OrCA will act, not when partners are expected to respond.

**Entrepreneurial
Operators**

**Government
Bodies & Port
Authorities**

**Non-
Governmental
Organisations
(NGOs)**

SMART Framework

SPECIFIC

Clearly define your goal with precision, detailing exactly what needs to be accomplished.

MEASURABLE

Establish criteria and indicators to track progress and determine when the goal is successfully achieved.

ACHIEVABLE

Ensure the goal is realistic and attainable within current constraints and resources.

RELEVANT

Align the goal with broader objectives, ensuring it matters and contributes meaningful value.

TIME-BOUND

Set a specific deadline or timeframe to create urgency and focus efforts for completion.

5.3.1. Entrepreneurial Operators

S

Build and maintain effective working relationships with entrepreneurial operators by delivering clear onboarding support, responsive technical assistance, and transparent commercial terms that respect each operator's autonomy and local business knowledge.

M

Track the proportion of operators who complete onboarding within an agreed framework period, targeting full completion before first operation. Monitor response times to technical or commercial queries (target: acknowledged within 48 hours) and record operator feedback on support quality through optional post-interaction surveys.

A

Attainable with structured informational materials, a technical support channel, and clear commercial documentation. Achievable through a concise digital toolkit which includes short instructional materials, a one-page operational summary, and a dedicated support contact, designed to require minimal time from the operator.

R

Strong, trust-based relationships with this group directly enable consistent unit operation and material throughput, which is central to OrCA's commercial and environmental impact.

T

Onboarding materials and support systems to be in place prior to first operation. Feedback mechanisms reviewed quarterly by OrCA to continuously support quality.

5.3.2. Government Bodies & Port Authorities

S

Establish and maintain credible, compliance-aligned relationships with government bodies and port authorities by providing reliable documentation, transparent environmental reporting, and formal communication that supports their regulatory and public accountability obligations.

M

Track compliance reports submitted on schedule quarterly. Publish an annual environmental performance summary aligned with government reporting cycles, covering material volumes, environmental outcomes, and incident records.

A

Achievable through a standardised regulatory engagement pack with a one-page operational overview, relevant ISO certification summaries, and a named OrCA contact. No bespoke documentation required per partner as templates do the heavy lifting.

R

Government bodies and port authorities provide regulatory legitimacy. Encouraging engagement with this group by maintaining trust and compliance alignment reduces institutional risk and supports long-term operational continuity.

T

Initial regulatory contact established within 30 days of deployment. First formal compliance report delivered within 90 days. Annual environmental summary published on a fixed yearly cycle thereafter.

5.3.3. Non-Governmental Organisations (NGOs)

S

Cultivate genuine, mission-aligned partnerships with NGOs by facilitating collaborative knowledge exchange, providing relevant impact data, and supporting community engagement activities in a manner that respects each organisation's programme priorities and working culture.

M

Track the number of NGO partnerships formalised through a Memorandum of Understanding (MOU) or equivalent agreement. Monitor the volume and reach of shared impact materials (e.g. case studies, outcome reports distributed through NGO channels); gather feedback from NGO partners on the quality of collaboration and input on where increased engagement may be desired.

A

OrCA can produce and share impact data, contribute to educational resources, and create platforms for dialogue without directing NGO programme delivery or scheduling. Collaboration is structured around OrCA's capacity to provide meaningful inputs, leaving programmatic decisions to each NGO.

R

Regulatory legitimacy from this group is essential to OrCA's ability to operate in port environments. Maintaining compliance alignment reduces institutional risk and supports long-term operational continuity across all deployment regions.

T

Initial partnership outreach and data-sharing to be established during the operational planning phase. Engagement is ongoing and responsive, with formal check-ins offered (but not mandated) at six-month intervals to review shared objectives and outputs.

5.4. Community Networks

The following community network structures provide optional but encouraged mechanisms for cross-sector dialogue that promotes knowledge sharing, peer-learning, and collaboration. Participation is designed to complement each group's existing ways of working.

Entrepreneurial Operators

- Introduce optional (but encouraged) bi-annually digital roundtables where operators share implementation experiences and process improvements.
- Establish regional operator champions to support onboarding and local coordination.
- Create a shared knowledge repository containing maintenance guidance, operational templates, and best-practice case studies.

Government Bodies and Port Authorities

- Establish a formal reporting method, providing standardised bi-annual updates on environmental performance, material volumes, and compliance status.
- Where appropriate, facilitate cross-learning between port authorities that have successfully integrated OrCA units, using peer examples as evidence of regulatory compatibility.
- Engage with existing government-led sustainability networks to position OrCA as a credible long-term operational partner.

Non-Governmental Organisations (NGOs)

- Create shared impact storytelling platforms highlighting environmental and social outcomes from recovered fishing nets that NGOs.
- Facilitate ongoing dialogue between NGOs, operators, and local communities on these platforms to strengthen long-term stakeholder relationships and informed decision-making.
- Support campaigns and educational initiatives involving fishing communities and partners by providing necessary outcomes and informational materials.

6. Case Studies

The following section presents a variety of case studies that illustrate how OrCA's suggested engagement and community principles may translate into practice. The selected case studies may be relevant to OrCA due to their industry, goals, operational structure, or stakeholder context. They are not direct comparisons, but rather, are offered as a reference point to approach OrCA's approach as it continues to develop.

Heading	RReuse- European circular Economy Social Network	Waste Concern Bangladesh – Decentralised Waste Management Mode	Philips Circular Economy Transformation	Circular Community Repair & Reuse Networks (Wales Pilot Study)
Overview	RREUSE is Europe's largest network of social enterprises operating in reuse, repair & recycling sectors across the continent	Waste Concern is a community-based waste management initiative focused on decentralised waste collection, community participation & localised recycling systems	Philips developed circular business models based on stakeholder collaboration, material recirculation, and decentralised implementation across markets.	A Welsh pilot study examined how decentralised repair and reuse hubs operate across rural and urban sustainability networks.
Relevance to OrCA	Operates through geographically dispersed actors, different regulations, and decentralised structures while maintaining coordination.	Relies on distributed operations, local participation, behavioural engagement, and community-integrated environmental systems.	Demonstrates how sustainability systems can scale through external partnerships while maintaining global standards and local adaptation.	Reflects OrCA's challenge of coordinating geographically dispersed actors and maintaining engagement across culturally different locations.
Key Strategic Insight	Decentralised sustainability systems function more effectively through shared principles and communication structures rather than rigid hierarchical control.	Long-term operational success depends heavily on community trust, stakeholder involvement, and behavioural participation rather than technology alone.	Sustainability transitions require not only technological innovation, but also coordinated ecosystems of suppliers, operators, and stakeholders.	Successful decentralised systems rely heavily on continuous stakeholder communication, local flexibility, trust-building, and shared learning structures
Application to OrCA	Supports the creation of a partner with knowledge-sharing ecosystem, community-led implementation, and principle-based operational frameworks.	Suggests OrCA should treat fishing communities as long-term stakeholders and priorities relationship-building alongside technical deployment.	Reinforces the importance of ecosystem governance, partner engagement structures, and shared sustainability objectives across operators.	Supports recommendations for partner onboarding frameworks, collaborative learning systems, and cross-network communication structures.

7. Final Note

The frameworks, engagement strategies, and community structures set out in this report represent an initial baseline. It is a starting point informed by available evidence and operational planning, rather than a fixed blueprint. As OrCA moves from planning into active deployment, it will be essential to treat real-world experience as a source of learning. Therefore, future research is essential. Regular internal check-ins should be scheduled to review what is working, where friction is emerging, and how partner relationships are evolving in practice.

Equally important is the consistent collection and storage of internal data. This may include material volumes, operator feedback, regulatory interactions, and community engagement statistics. Thereby, patterns can be identified over time. This data will form the evidence base for refining risk assessments and improving engagement quality as OrCA continues to scale. The goal is a constantly adapting, sustainable strategy, not a static one.



8. Key References

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