

B1. Introduction

This annex examines the role of safety in shaping public perceptions of e-fuels and explores how processes can be designed to facilitate open dialogue between the public and industry stakeholders. Such dialogue can help identify and address potential safety concerns while fostering informed and positive perceptions of e-fuels. As public perceptions are equally relevant across the stages of bunkering, storage, and use of e-fuels, this annex addresses public perception as a cross-cutting issue that spans all three phases.

The section begins with a review of the state-of-the-art literature on public perceptions of energy transitions, with a particular focus on e-fuels in the maritime sector. This is followed by an overview of existing energy transition information initiatives undertaken by Danish ports. Three common approaches to public engagement - inform, communicate, and involve - are then presented as a framework for the subsequent case study. To provide a concrete and relevant analysis of public perceptions, a case study was conducted in Rønne, Bornholm, involving citizens' organisations and port stakeholders. The study aimed to identify potential concerns and opportunities for facilitating future public perception processes. The annex concludes with a set of recommendations for establishing effective information pathways that can support positive public perceptions of sustainable energy transition initiatives.

B2. State of the Art Review

Literature widely agrees that the transition to green fuels, including in the maritime sector, constitutes a socio-technical transformation rather than a purely technological shift [B1][B2]. This implies that technological innovation must be understood alongside institutional frameworks, stakeholder relations, and societal perceptions. In particular, the development of green fuel storage and bunkering infrastructure is shaped not only by technical feasibility and economic viability but also by public perception, trust, and social acceptance.

A theme across the literature is that public perception of safety plays a decisive role in enabling or constraining the deployment of green fuels. Empirical evidence suggests that perceived risk, rather than objective risk, is central to community acceptance [B3]. Safety, therefore, functions as both a technical and social construct, mediated by transparency, communication, and trust in regulatory institutions. Studies show that acceptance is more likely to emerge where safety standards are harmonised, visibly enforced, and aligned with established frameworks such as the IGF Code (International Code of Safety for Ships Using Gases or Other Low-flashpoint Fuels).

At the same time, research on energy transitions emphasises that public participation is critical for ensuring democratic legitimacy, procedural justice, and durable social acceptance (e.g., meta-analysis of 129 studies on participation processes) [B4]. Participation enables the integration of local knowledge, values, and concerns into decision-making, thereby strengthening both outcomes and legitimacy. However, a persistent gap exists between theory and practice. Most participatory processes remain limited to information provision and consultation, while more empowering forms of engagement, such as co-creation or shared governance, are comparatively rare.

This implementation gap is also reflected in the maritime domain. Social impact assessments, which could provide a structured approach to addressing community concerns, are rarely applied systematically. Instead, they are often subsumed under Environmental Impact Assessments, with limited attention to social acceptance, worker safety culture, and local perceptions [B1]. As a result, social dimensions are frequently treated as secondary to technical and environmental performance indicators.

Where stakeholder engagement does occur, it is often reactive rather than proactive. Case studies from European ports demonstrate that community consultations typically take place late in the planning process, reinforcing conflict dynamics such as 'Not-In-My-Backyard' in densely populated port-city regions [B1]. This aligns with broader findings in the participation literature, which identify late involvement, limited transparency, and power imbalances as drivers of mistrust and resistance.

Stakeholder-focused studies further illustrate that, in practice, social acceptance is often operationalised through proxies such as institutional trust, infrastructure reliability, and risk management capacity rather than through deliberative or participatory frameworks [B5]. This suggests that acceptance in the maritime sector is frequently understood as a function of confidence in systems and governance, rather than as an outcome of inclusive decision-making processes.

Recent research increasingly points to the importance of pilot and demonstration projects in overcoming these limitations. Drawing on socio-technical transition theories such as the multi-level perspective and strategic niche management, pilot projects are shown to play a crucial role in building legitimacy, reducing uncertainty, and shaping stakeholder mindsets [B2]. Social acceptance in this context emerges less from formal participation processes and more from the visibility and credibility of successful, locally embedded initiatives.

Overall, the state of the art reveals a tension between two approaches to social acceptance in green fuel transitions. On one hand, there is a normative emphasis on participatory governance, co-creation, and procedural justice. On the other hand, current practices, particularly in the maritime sector, tend to rely on technocratic risk governance, regulatory clarity, and demonstration effects to build trust. Bridging this gap requires moving beyond participation as a formal requirement toward more integrated approaches that combine robust safety governance with early, meaningful, and context-sensitive public engagement.

B2.1. Existing port initiatives

Numerous initiatives at ports are already in place to involve citizens in the local energy transition. These initiatives demonstrate different degrees of participation and communication.

A. Åben Havn (open port)

Initiatives like Åben Havn primarily serve as open houses and exhibitions, inviting citizens to learn about ongoing projects. These initiatives emphasise transparency and accessibility by presenting technical details in a tangible and localised context. They exemplify informational participation, aiming to raise awareness and understanding of the energy transition and its local effects.

Additionally, they showcase the harbour, highlight recent activities within the harbour, and introduce key harbour figures. Food and drink are also provided at these events, making them more inviting. This approach attracts a broader audience, e.g. families, beyond traditional town hall meetings, fostering greater community engagement.

B. Borgermøder (town hall meetings)

Town hall meetings offer an interactive format in which citizens are invited to attend presentations and ask questions. These meetings create a space for dialogue, but the structure is often still top-down, with authorities or project developers setting the agenda.

This format aligns with consultative participation, in which communication flows primarily from project developers to citizens, with opportunities for feedback and clarification.

C. Exhibition and communication material

Exhibition materials about the harbour, displayed at the harbour, serve as effective communication tools for locals to keep up with developments and tell visitors about ongoing activities. They should be designed to inform the public about the project's goals, benefits, and impacts.

While these materials contribute to transparency, they largely represent one-way communication, with limited opportunities for citizens to actively shape the project.

B2.2. Three approaches towards public perception

Based on both the literature and existing initiatives in ports, public participation in energy transitions can be conceptualised along three levels: 1) inform, 2) communicate, and 3) involve (Figure B1).



Figure B1 Three levels of public participation in energy transitions

These three levels are used to evaluate the empirical data collected in this project on public perception and to highlight the potential and barriers across the different levels. Below are the levels described.

1. Inform (one-way communication)

This level focuses on disseminating information to the public through channels such as websites, exhibitions, and printed materials.

- *Purpose:* awareness and transparency
- *Role of citizens:* passive recipients
- *Typical formats:* information campaigns, open port events, exhibition posters

While necessary, this level is usually insufficient on its own, as it does not allow citizens to influence decisions.

2. Communicate (one-way with feedback options)

At this level, communication still primarily flows from authorities to citizens, but with opportunities for questions, comments, and limited dialogue.

- *Purpose: clarification and feedback*
- *Role of citizens: respondents*
- *Typical formats: town hall meetings, hearings, Q&A sessions*

This level can improve understanding and trust but often lacks real decision-making power.

3. Involve / Interact (two-way communication with influence)

This level represents active participation, where citizens are involved in shaping decisions through dialogue and collaboration.

- *Purpose: co-creation and shared ownership*
- *Role of citizens: active contributors*
- *Typical formats: workshops, citizen assemblies, co-design processes*

Research shows that this level has the greatest potential to build trust, legitimacy, and long-term acceptance, especially when participation occurs early and meaningfully.

B3. Building Involvement in Public Perception in Port of Rønne

To understand citizens' concerns about the energy transition, the Port of Rønne (Rønne Havn) on the island of Bornholm, Denmark, has been examined as a case study. In particular, the challenges and opportunities involved in communicating transition processes in Rønne through informative, communicative, and involving approaches were investigated. To do this, a qualitative study was conducted, including interviews with citizens, interest organisations, and fire inspectors, as well as a review of local news articles. In addition, a workshop with relevant stakeholders at Rønne Havn was facilitated.

The aim of the study was to understand current public perceptions of the past and ongoing energy transitions at Rønne Havn, with a particular focus on green fuels and PtX technologies. Gaining insight into these perceptions provides a citizen-centred perspective on safety concerns and highlights potential barriers that may arise during such transition processes.

The findings from the study were subsequently used to design a targeted workshop with citizens' organisations. This workshop focused on developing information strategies to enhance public acceptance and increase the societal readiness level for the storage, bunkering, and use of green fuels at Rønne Havn.

B3.1. Interviews and workshops with local stakeholders

Most interviews were conducted by the industrial PhD fellow, Kristian Holst Kristiansen, and followed a semi-structured format [B7]. Interviews focused on the implementation of PtX plant on Bornholm. Furthermore, he conducted, together with Kristian Borch, a workshop with technical actors from Rønne Havn to gauge their perceptions of public involvement in such transitions and to discuss specific themes with one another.

The interview and workshop data were analysed using thematic coding techniques [B8] enabling patterns and differences among stakeholders and interest organisations to be identified from the empirical material.

To follow up on the initial interviews, a dialogue was initiated between the research team and Rønne Havn (including the communication manager) to present the overall challenges identified in the data and to understand how they have addressed or will address them in future communication work.

B3.2. Reviewing local media coverage

The analysis was based on a systematic review of local media coverage from the newspaper, Bornholms Tidende and the TV station, TV2 Bornholm, focusing on written articles published between 2023 and 2026. The review used the keywords 'Rønne Havn', 'power-to-x', and 'citizen meeting' to identify 203 articles on how developments related to PtX at Rønne Havn are communicated and discussed locally. This approach aimed to capture both formal engagement activities and recurring citizen perspectives, concerns, and expectations as reflected in local media.

B3.3. Participatory workshop with citizens' organisations

Based on the initial interviews and mapping of local media coverage, a participatory workshop [B9] was arranged to involve citizens in co-creating effective, citizen-friendly communication strategies for public acceptance of green fuels, together with two citizens' organisations in Rønne (Rønne Borgerforening and Rønne Byforening).

The purpose of the workshop was not to examine technical aspects of the transition processes, but rather to explore which types of knowledge and forms of information are needed from a citizen perspective to foster a sense of safety in the ongoing transformations at Rønne Port.

The participatory workshop was structured into three main phases. First, participants worked to identify and discuss current uncertainties and challenges related to existing information practices. This phase built on previously identified issues and encouraged dialogue across stakeholder groups to ensure multiple perspectives were represented. These issues were presented as physical problematisation cards under the workshop, where participants had the opportunity to add their perception of the challenge to the card (Figure B2).

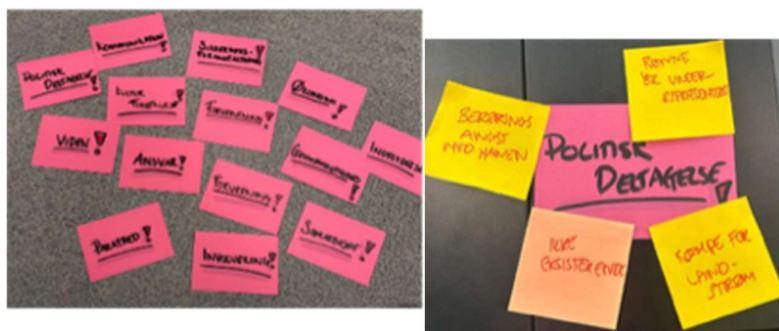


Figure B2 Physical material used during the first workshop phase

In the second phase, the workshop focused on identifying best practices for effective communication. Participants explored what constitutes accessible, timely, and trustworthy information from both employee and citizen perspectives. This phase included defining necessary elements under the themes Who, When, and How throughout a transition process (Figure B3).

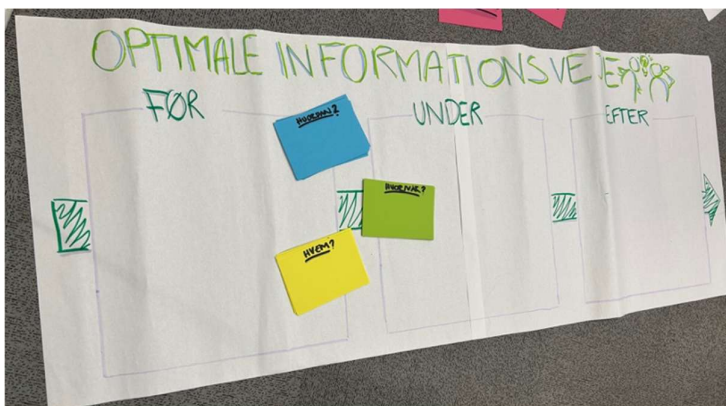


Figure B3 Physical material used under the second workshop phase

Finally, participants developed potential implementation strategies. Through discussions, the participants needed to connect the challenges with the developed information pathways. This phase emphasised co-creation and aimed to identify feasible ways of aligning stakeholder needs and expectations.

B4. Current Public Perception around Rønne Havn

This section presents the findings from the investigative studies conducted to understand current public perceptions in Rønne, providing the basis for and informing the design of the participatory workshop.

B4.1. Port actors

The combined material from the workshop with port stakeholders and the interview with the fire and civil protection authority highlights how the development of PtX and associated port infrastructure is shaped by an interplay between technical risk governance, institutional coordination, and public communication. While the fire authority focuses on formal safety systems and regulatory frameworks, the workshop participants emphasise knowledge gaps, communication challenges, and the need for building trust in relation to complex infrastructure projects.

Risk management and technical safety frameworks

From a regulatory perspective, safety is demonstrated through systematic hazard identification and effective management of the risks around hazardous installations (see Chapter 5 of the main report), including scenario-based modelling to assess how far potential incidents, such as leaks, toxic gas dispersion, or explosions, could affect surrounding areas.

For example, installations involving ammonia may require safety distances of approximately 300 metres. These calculations form part of the formal planning basis for locating facilities in relation to residential areas and other sensitive functions.

Scenario modelling is also used to determine worst-case impacts and necessary safety barriers, ensuring that both acute accidents and longer-term exposure risks are accounted for in planning decisions.

Institutional coordination and regulatory approval

A feature of the safety system is inter-agency coordination. New storage or bunkering facilities must be jointly reviewed by the Environment Ministry, police, and fire authorities before approval. This ensures that risk assessments are aligned across institutions and that safety requirements are consistently applied.

In addition, facilities handling hazardous fuels are subject to recurring inspections, typically every 2 years, ensuring ongoing compliance rather than a one-time certification. This approach is intended to maintain long-term safety standards as technologies and operations evolve.

Knowledge gaps and the need for “demystification”

The workshop data highlight that a central challenge is not opposition to development but uncertainty and a lack of accessible knowledge. Stakeholders report that many public concerns stem from a lack of clarity regarding economic viability, safety distances, environmental impacts, and operational responsibility.

As a result, a key objective is to “demystify” complex projects by building shared knowledge. This includes improving understanding of:

- safety risks and mitigation measures
- infrastructure roles and responsibilities
- economic and operational frameworks.

The intention is to enable more informed public debate and reduce perception gaps between experts and citizens.

Communication, transparency and public awareness

The empirical data emphasise that communication is a core element of safety governance.

The fire authority stresses that public awareness is essential for preparedness and legitimacy, particularly in harbour areas where hazardous transport occurs. Clear communication systems, rapid alerts in the event of incidents, and coordinated messaging across regions are considered critical components of emergency preparedness.

Workshop participants similarly highlight the importance of transparent and credible communication. There is a strong view that technical information alone is insufficient and that trust is also shaped by who communicates, how information is framed, and whether messages are perceived as understandable and relevant. External experts and trusted voices are often seen as particularly influential in shaping public understanding.

On the other hand, stakeholders from the port argue that communication efforts can be challenged by the way information is perceived by the public. They feel that the information they provide is often interpreted or framed in a negative manner, which may influence both the content and the continuity of the information disseminated by the port.

Governance, roles and responsibility

Both perspectives underline the importance of clearly defined roles between actors.

The fire authority describes a structured system in which responsibility is distributed among emergency services, environmental authorities, and port operators. Safety decisions are made through formal procedures, while public communication supports preparedness.

Workshop participants from the port, however, point to a need for a clearer understanding among stakeholders of:

- Who is responsible for safety, infrastructure, and operations
- What decisions are politically defined versus technically constrained
- Where public influence is possible and where it is not.

A lack of clarity in these boundaries can contribute to uncertainty and reduced trust.

Balancing rapid development and public confidence

An overarching tension identified in the datasets is the balance between **accelerated green infrastructure development and the need for robust public legitimacy and safety assurance**.

While green fuel usage and associated port expansion are seen as necessary for the green transition, they also introduce complex technical risks and societal concerns. This requires balancing:

- Fast implementation of infrastructure
- Thorough risk assessment and regulation
- Meaningful but structured public engagement
- Clear and consistent communication strategies.

The combined findings show that safety in port development is not only a technical issue but also a governance and communication challenge, as confirmed in the state-of-the-art section. The fire authority provides a structured framework based on risk modelling, inter-agency coordination, and ongoing inspection, while workshop participants highlight the importance of knowledge sharing, transparency, and trust building.

Together, the two perspectives point to a governance model in which **technical safety systems and public legitimacy processes must be developed in parallel** to support sustainable and socially accepted infrastructure development.

B4.2. The local media

Across the reviewed media material, several engagement and outreach activities are described, including public information meetings, open port events, and visits to energy-related facilities such as the power plant. These initiatives indicate ongoing efforts by authorities and project actors to inform citizens about developments at the port. Media coverage presents these activities primarily as channels for one-way communication, in which information about plans and projects is shared with the public, but also as opportunities for the public to raise concerns about the port's development.

Expectations of stronger citizen involvement

Despite these activities, a prominent finding in the analysis is a recurring expectation among citizens for stronger, more meaningful involvement. Several articles, including those featuring sceptical citizens seeking greater inclusion in processes for the development of energy islands, indicate that residents perceive their current engagement as insufficient. The desire for involvement is particularly linked to early-stage dialogue and opportunities to influence decisions, rather than merely receiving information once plans are already underway.

Another finding concerns how citizens experience and describe local impacts of port activities. Noise, vibration, odours, and diesel traffic through the city are repeatedly cited as everyday nuisances that citizens feel are not adequately addressed by authorities or project developers. Importantly, the analysis shows that citizens tend to perceive the port as a single, unified entity. They do not distinguish between different port projects or operators, so negative experiences with one activity may affect perceptions of other developments, including PtX. This lack of differentiation contributes to frustration, as residents feel their concerns are not taken seriously when responsibility is unclear or fragmented.

The harbour as a shared lifeline

At the same time, media coverage indicates that citizens view Rønne Havn as a vital lifeline for the island, central to employment, logistics, and future development opportunities. This strong sense of ownership and dependence helps explain the high level of public interest and concern. The analysis suggests that public criticism is not rooted in opposition to development per se, but in a demand for transparency, acknowledgement of local impacts, and clearer communication on how noise and air-related implications are managed and mitigated. Overall, the findings highlight a need for more targeted, impact-focused engagement that recognises both the harbour's strategic importance and its close integration with everyday life in Rønne.

4.3. Citizens' organisations

Across the interviews, with actors from the citizens organisations in Rønne, there is a generally limited and uneven understanding of initiatives such as PtX and the energy transition at the port. While the concept is often recognised in broad terms as "green fuel" or part of a green transition, its concrete implications remain unclear to most citizens. This lack of clarity is not necessarily interpreted as disinterest but rather as a consequence of communication perceived as technical, fragmented, and insufficiently connected to everyday concerns. As a result, the energy transition is often experienced as something happening "around" the city rather than as something fully explained or collectively understood within it.

Participation, Dialogue, and Perceived Influence

All interviews indicate the existence of formal dialogue structures, including public meetings and consultation processes among the port, the municipality, and citizens' organisations. These are generally described as open and polite in tone and, in some cases, as constructive spaces for exchange. Their actual influence is questioned, however and several respondents describe a pattern in which decisions appear to be made before consultation, with public hearings serving more as procedural requirements than as arenas for genuine co-determination.

There is also a sense that participation is uneven, involving a relatively small circle of engaged citizens and organisations, while the broader population remains more passive or distanced. Even when citizens are invited into dialogue, the structure of these meetings is often perceived as informational rather than active, with limited opportunity to shape outcomes.

Local Impacts: Noise, Pollution, and Everyday Life

A central and strongly articulated theme across the interviews is the direct impact of harbour activities on everyday life in Rønne (which was also seen in Section B3.2 above). Residents describe significant disturbances related to noise, continuous industrial activity, visual changes to the harbour landscape, and emissions from ships and heavy machinery. These effects are not abstract but experienced as concrete disruptions to sleep, well-being, and quality of life, particularly for those living close to the harbour or in the city centre.

Concerns are especially raised regarding round-the-clock operations, diesel and other exhaust emissions, and the placement of industrial facilities near residential and recreational areas. In some cases, residents report feeling physically affected by pollution or being unable to keep windows open during the summer. Suggested mitigation measures, such as noise monitoring stations or onshore power for cruise ships, are often mentioned as reasonable solutions but are perceived as insufficiently implemented or dismissed on technical or administrative grounds. These local impacts have a direct negative impact on the public perception about safety in future transition processes, because the citizens do not get the necessary information about the consequences of changes or development plans.

Trust, Transparency, and Governance Structures

The interviews also reveal broader concerns about trust and institutional transparency. A recurring issue is the complex governance structure surrounding Rønne Havn, where ownership and political responsibility are closely intertwined through municipal involvement. This is perceived as creating blurred lines of accountability, making it difficult for citizens to understand who is ultimately responsible for decisions.

In addition, there is a strong perception that critical scrutiny from local political actors is limited. Some interviewees express concern that major investment decisions are primarily validated through financial feasibility and business cases rather than through broader democratic debate. This contributes to uncertainty about whether risks, particularly financial and environmental, are being fully and critically assessed.

Benefits, Compensation, and Perceived Imbalance

While none of the interviews indicate a rejection of port development or the green transition in principle, they consistently highlight a perceived imbalance between local costs and collective benefits. Residents acknowledge the importance of Rønne Havn for Bornholm's connectivity, economy, and future development, and some phases of expansion are explicitly supported as necessary or positive.

This support is conditional, however. A recurring expectation is that the port should provide tangible benefits to the local community in exchange for the disruptions it causes. This includes investment in recreational areas, urban improvements, and better integration between the city and the port. Several interviewees express frustration that such elements are either delayed, deprioritised, or not fully realised, despite being part of earlier visions or master plans.

Conditional Support and the Question of Legitimacy

Overall, the interviews suggest that public perception of the energy transition and port expansion in Rønne is not characterised by outright opposition, but rather by conditional support. Acceptance depends strongly on whether citizens feel adequately informed, meaningfully involved, and fairly treated in the distribution of costs and benefits.

While there is recognition of the strategic importance of the port and the broader green transition, legitimacy is repeatedly tied to issues of transparency, procedural fairness, and trust in decision-making processes. The central tension is therefore not between citizens and the idea of development itself, but between large-scale infrastructural ambitions and the lived experience of those most directly affected by them.

B4.4. Conclusion

Across the citizen interviews, the stakeholder workshop, and the interview with the fire and civil protection authority, a consistent picture emerges of both **strong structural acceptance of the green transition** and **clear constraints on maintaining that acceptance in practice**. While there is broad recognition that infrastructure development such as PtX and associated harbour expansion, and energy system transformation, is necessary, acceptance is not unconditional. It is shaped by how risks are communicated, how decisions are made, and how citizens feel meaningfully included in the process.

A first constraint relates to **asymmetries in knowledge and transparency**. Both citizens and workshop participants describe a persistent gap between technical expertise and public understanding. Complex risk models, environmental assessments, and economic business cases are not easily accessible, which creates uncertainty and, in some cases, distrust. The fire authority's structured approach to risk zoning, scenario modelling, and inter-agency approval demonstrates a highly developed technical safety system, but this system does not automatically translate into public understanding. As a result, acceptance becomes fragile when technical explanations are not sufficiently translated into meaningful, contextualised communication.

A second constraint concerns **perceived uncertainty in decision-making processes and responsibilities**. Across the interviews, there is a recurring concern about who is actually responsible for evaluating trade-offs between economic development, environmental impact, and safety. While formal roles are clearly defined within regulatory systems, this clarity is not always experienced by citizens or even local stakeholders. In the workshop, this led to calls for clearer boundaries between what is open for influence and what is already fixed by technical or regulatory frameworks. Without such clarity, engagement risks being perceived as symbolic rather than substantive.

A third constraint concerns **trust and legitimacy in governance structures**. The citizen interviews particularly highlight concerns about whether political and institutional actors sufficiently interrogate large infrastructure decisions, especially when projects are complex, costly, and implemented over accelerated timelines. Similarly, workshop participants note that legitimacy is strengthened when credible and recognisable voices communicate risks and opportunities, rather than purely institutional messaging. The fire authority's emphasis on coordinated inter-agency approval and regular inspections contributes to institutional trust, but this trust still depends on how transparently these processes are communicated externally.

A fourth constraint relates to **the design of participation formats**. The material shows a tension between structured, "curated" engagement, where parameters are predefined, and more open, exploratory forms of dialogue. While open formats can increase inclusion, they may also create confusion or uneven participation, especially when technical complexity is high. Conversely, highly structured formats risk limiting perceived influence. This tension points to the need for carefully designed engagement processes that match the level of complexity and the available decision space.

Finally, there is a shared recognition that **speed and scale of infrastructure development can challenge acceptance capacity**. Accelerated implementation of multi-phase projects reduces the time available for iterative learning, adaptation, and trust-building. This can increase resistance even when individual project components are seen as reasonable in isolation.

Combining the public perception findings with the results of the risk management process, there is a clear key consideration around the reliability of safety systems. Previous experiences towards the information level in transition processes at the port, citizens in Rønne have expressed a level of mistrust in the reliability of governance systems, which potentially can harm the acceptance of future transitions. Another key concern is pollution, which concerns both noise and air pollution. There needs to be implemented effective information systems that can make citizens feel safe when they experience a higher level of pollution in their local environment.

Overall, there is a need to investigate the necessary information structures to accommodate the public concerns regarding energy transition processes placed in the local environment. In the following, a guideline for co-creating information strategies together with citizens is presented.

B5. Co-creating involving Information Strategies

The overall ambition for the participatory workshop was to develop **information strategies** that can be further refined and used as a practical reference point for future communication and engagement activities in energy transition processes. Citizens do not necessarily want to be involved in decision-making processes, but they want to feel involved through the information provided by the port actors when processes affect their harbour or local environment.

Target group

Though this workshop was facilitated with only citizens' organisations. The workshop is intended for a cross-sector group of relevant stakeholders, including:

- Operational actors at the harbour
- Harbour management

- Safety and emergency professionals (e.g. the fire and rescue authority/emergency manager)
- Communication and engagement staff
- Local citizens' organisations and interested residents
- Municipal actors.

To ensure that technical, administrative, and citizen perspectives are represented in the co-creation process, fostering interdisciplinary discussion and gaining a cross-understanding of the different perspectives and challenges present in the current system.

B5.1. Workshop structure and content

As described in Section B3.3, the workshop is structured into three sequential and interlinked parts, moving from identification and building on of challenges to development of solutions and implementation pathways. During the participatory workshop, four people, two from each citizens' organisation, participated.

Understanding current uncertainties and information challenges

From the analysis, 14 key challenges were identified:

1. Political participation (politisk deltagelse)
2. Communication (kommunikation)
3. Safety considerations (sikkerhedsforanstaltninger)
4. Cultural understanding (kulturforståelse)
5. Knowledge (viden)
6. Expectations (forventninger)
7. Economy (økonomi)
8. Involvement (Involvering)
9. Collaboration (samarbejde)
10. Pollution (fourening)
11. Transparency (gennemsigtighed)
12. Influence (indflydelse)
13. Responsibility (Ansvar)
14. Readiness (parathed).

These challenges were translated into the challenge cards described in Section B3.3. Participants were asked to negotiate which of the 14 challenges they considered most important and to select 4–6 priorities.

Following group discussions, six key challenges were selected: knowledge, political participation, transparency, involvement, pollution, and communication. In addition, they discussed safety concerns, which they perceived as closely linked to the issue of pollution (Figure B4).



Figure B4 The six chosen challenges together with added understanding

During the discussion, the participants emphasised that their access to information about activities and developments at the port has diminished following a change in leadership within the port organisation. Previously, residents received regular newsletters and had access to a dedicated point of contact. These communication channels have since been discontinued as a result of internal changes within the port organisation. According to the participants, this has led to unnecessary concerns and uncertainty among local residents, who expressed a need for more open, continuous, and transparent communication to provide clarity and enable them to plan their daily lives around potential environmental impacts.

Reflecting on earlier transition processes at the port, the participants also highlighted a perceived lack of local political engagement. They suggested that internal political disagreements may have contributed to a reluctance among local politicians to engage with port-related issues, resulting in Rønne being deprioritised in broader political discussions.

The discussion both confirmed challenges identified in previous qualitative work and brought forward new perspectives that had not emerged earlier. Furthermore, it fostered greater alignment between the two citizens' organisations and helped identify shared interests that could be pursued more strategically in future collaboration. The participants also viewed themselves as potential communicators who could contribute to disseminating positive stories and strengthening the public image of the green transition initiatives taking place at the port.

Exploring best practices in information and communication

The second part focused on identifying **what constitutes effective, trustworthy, and accessible information in the context of energy transitions in the port**. Having the selected challenges in mind, the participants discussed the ideal *Who*, *When* and *How* information elements necessary to have during transition processes (Figure B5).



Figure B5 Results from the second phase of the participatory workshop

This phase was designed to be more open and exploratory, aiming to develop a shared understanding of communication needs. Participants may co-create **the ideal information pathways** that represent key principles, formats, or elements of effective communication. In the following, the key considerations are described:

Who?

During the “who” discussion (Figure B6), municipal actors were repeatedly identified as important stakeholders to involve in future information strategies. Participants emphasised that the municipal council should be represented and actively engaged in the transitions taking place across the city of Rønne, not necessarily as direct providers of information, but as actors expressing positions and taking responsibility for ongoing activities.

Furthermore, the Port should be involved not only as a single actor, but also through the inclusion of the various stakeholders operating within the port (e.g. ferry services, the wind industry, cruise operators), in order to ensure that different perspectives are reflected in the information provided.

The participants also observed that not all citizens need to receive information directly. Instead, they suggested that information should primarily be directed towards citizens’ organisations, which can then disseminate it further to interested citizens in Rønne.

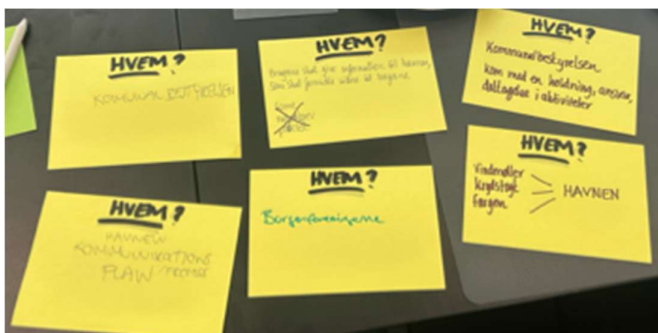


Figure B6 Results from the ‘Who?’ discussion

How?

The workshop participants generated a range of ideas for how information should be communicated (Figure B7). First, they expressed a wish to reinstate previous communication channels from the Port, such as citizen meetings, newsletters, and publicly displayed posters outlining future plans at visible locations across the city. They particularly appreciated the “Open Port” initiative and suggested that it should take place more frequently than once a year, potentially including opportunities for more in-depth access to the port’s operations (“behind the scenes” or “machine room” access).

Participants emphasised the importance of closeness between the Port and the citizens of Rønne, highlighting that such initiatives could strengthen this relationship, for example through the possibility for citizens’ organisations to book guided tours.

During the discussion, there was also a general interest in not only being informed about the negative impacts of transition processes, but to a greater extent also receiving communication about the positive stories and outcomes of the transition. This could be achieved through channels such as social media, interviews with port actors, or podcast formats.

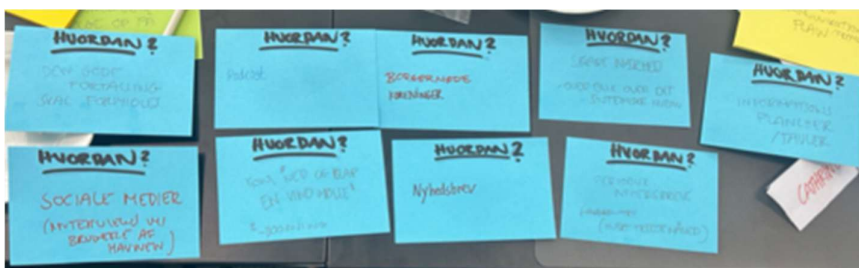


Figure B7 Results from the ‘How?’ discussion

When?

The “when” discussion (Figure B8) was ongoing throughout the other discussions. The central focus of this discussion concerned the need for a systemic and future-oriented information system. Participants emphasised that, while present and real-time information is important, there is also a need to communicate future visions and the long-term implications of developments at the port.

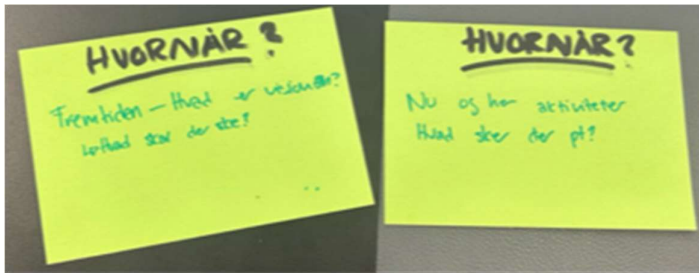


Figure B8 Results from the 'When?' discussion

Implementation of information pathways

Based on the first two phases of the workshop, the participants were asked to reflect upon and discuss how the ideal information pathways could be connected to the challenges to solve/accommodate them.

The empirical findings from this discussion point to several concrete ways in which ports and associated actors could strengthen citizen involvement, thereby increasing public acceptance of ongoing and future green transition developments. A central insight is that communication efforts should place greater emphasis on proactive storytelling. Both citizens and port actors appear to share an interest in communicating the positive aspects and outcomes of the green transition. Actively highlighting benefits, local opportunities, and tangible results of the transition may therefore help counterbalance the predominance of negative perceptions associated with noise, emissions, and disruptions.

At the same time, there is a clear demand for a more comprehensive and forward-looking communication approach. Citizens do not only seek information about ongoing activities but also about future developments that may affect their everyday lives. In particular, there is a desire for early awareness of potential impacts, such as increased noise, traffic, or air pollution, several years in advance. Providing such long-term, systemic overviews would allow residents to anticipate and prepare for changes, rather than experience them as unexpected disruptions. This suggests that transparency should not be limited to current projects but should include long-term development trajectories.

Another finding concerns the importance of consistent and readily available information. Citizens express that partial information is preferable to a lack of communication altogether, indicating that even incremental updates can play an important role in maintaining trust. In this regard, existing communication channels, such as newsletters, should be maintained and developed rather than discontinued, as their removal may increase uncertainty and concern rather than reduce it. Consistency in communication thus emerges as a critical factor in shaping perceptions of openness and reliability.

The findings also point to the potential role of local intermediaries in communication efforts. Citizens' organisations express a willingness to act as ambassadors for positive stories about the port, suggesting an untapped opportunity to co-produce communication and strengthen local anchoring. Engaging such actors more systematically could help disseminate information in ways that are perceived as more credible and locally grounded. Importantly, the analysis emphasises a mismatch between how port activities are organised institutionally and how they are perceived by citizens. While the port comprises multiple actors and projects, residents tend to view it as a single unified entity. As a result, fragmented communication from different actors can cause confusion rather than clarity. This highlights the need for greater coordination and joint efforts across port stakeholders, ensuring a coherent and transparent overall narrative about activities, responsibilities and impacts.

Regarding specific engagement formats, citizens prefer more accessible, recurring initiatives. There is interest in expanding formats such as open port events beyond an annual occurrence, as well as in more frequent guided tours and public talks that address both current and future projects. These could be organised in collaboration with local institutions such as libraries or citizens' organisations, thereby lowering barriers to participation and strengthening community involvement. Similarly, updated on-site exhibition materials presenting ongoing processes and future plans could enhance everyday transparency.

Finally, the empirical material suggests that meaningful engagement does not necessarily require extensive participatory processes. Rather, citizens emphasise the importance of clear, continuous, and accessible information. Consistency, transparency, and responsiveness to concerns, particularly regarding noise and air-related impacts, appear to be more critical for acceptance than formalised participation alone. Taken together, these insights indicate that strengthening citizen engagement is less about introducing entirely new mechanisms and more about improving coordination, continuity, and clarity in existing communication practices.

B5.2. Workshop Conclusions and Recommendations

Overall, the findings from the participatory workshop highlight that effective communication in the context of energy transition processes is less about increasing formal participation and more about strengthening the quality, continuity, and coordination of information flows between ports and citizens. While citizens do not necessarily demand a direct role in decision-making, they express a clear need for being meaningfully informed about ongoing and future developments that may affect their local environment.

A central conclusion is that transparency, consistency, and accessibility of information are key factors in shaping public perceptions and trust. The discontinuation of established communication channels has contributed to uncertainty and concern among citizens, suggesting that stable and predictable information pathways are essential for maintaining legitimacy and reducing misunderstandings. In this regard, even incremental and partial updates are valued, as long as they are delivered consistently.

The findings further underline the importance of a more strategic and coordinated communication approach across port actors. Citizens tend to perceive the port as a single entity, which makes fragmented communication potentially counterproductive. Strengthening internal coordination and developing a coherent narrative across stakeholders, therefore, appears crucial for improving clarity and credibility.

In addition, the workshop demonstrates the value of involving local intermediaries, such as citizens' organisations, as active communicative partners. These actors can play an important role in translating and disseminating information in ways that are locally grounded and perceived as trustworthy. At the same time, there is a clear interest in more diverse and engaging communication formats, including open port events, guided tours, and accessible public storytelling that highlights both challenges and positive outcomes of the green transition.

Finally, the results suggest that building public acceptance of energy transition processes depends not only on addressing concerns related to environmental impacts such as noise and pollution, but also on establishing long-term, forward-looking communication that enables citizens to anticipate and understand future changes. Taken together, these insights point towards the need for information strategies that prioritise coherence, continuity, and openness as foundational elements of successful public engagement in sustainable port transformations.

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