



‘Social license to operate’ in the Blue Economy

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ABSTRACT

The Blue Economy is an ocean based economic growth model gaining traction around the world. The way in which the Blue Economy is conceived and understood differs significantly across different sets of actors. A particular area of contestation exists around which ocean based industries or sectors can be considered to be ‘Blue’. This highlights the possibility of the Blue Economy becoming a forum through which the legitimacy of different private uses of ocean resources is contested and debated. The question of legitimacy of Blue Economy activities and sectors is explored through a critical engagement with the notion of a ‘social license to operate’ (SLO). Whilst SLO is normally considered in the context of individual businesses or developments, in this article we explore the applicability of SLO at a cross-sectoral scale. In doing so we examine how the concept of SLO may inform debates over appropriate private use of public ocean resources, and how this might influence the legitimacy of the broader concept of a Blue Economy. A case study involving a range of private sectors actors engaged in diverse ocean industries was conducted, drawing on interviews, a cross-sectoral survey and an interactive workshop with the ocean business community. The case study explores the role that SLO is currently playing in ocean industries. In particular we explore perceptions of *who* grants a SLO, *what* kind of concerns impact a SLO and *how* sectors work to obtain, or maintain, a SLO. By comparing the responses of individual sectors to these three critical questions, we identify that many of the SLO challenges currently being experienced by ocean industries relate to conflicting social and political values. This is creating a range of complex, sometimes irresolvable, SLO challenges for maritime industries, largely concentrated in sectors engaged in resource extraction, such as mining and oil and gas. In addition we find that attempts to address SLO challenges to date focus mostly on technical or technological adaptations. When comparing this to Blue Economy narratives we find that current engagement with SLO speaks primarily to interpretations of the Blue Economy which favour growth based narratives, and largely neglect competing discourses. This has considerable implications for the overall legitimacy of the Blue Economy, as the loss of SLO within one sector may undermine the credibility of the concept overall. This research highlights the importance of broader societal and political engagement in questions about appropriate use and management of private sector activities in the ocean.

1. Introduction

The Blue Economy, sometimes also called ‘Blue Growth’, is a contested, yet increasingly influential concept which is gaining considerable traction in ocean based sustainable development narratives (Mulazzani and Malorgio, 2017). The concept has been championed by institutions around the world, including the World Bank, European Union, African Union, OECD and the United Nations as coastal states explore the economic opportunities that exist within and beyond their ocean jurisdictions (Voyer et al., 2018). Yet there is no common agreement of what the terms ‘Blue Economy’ and ‘Blue Growth’ mean either in principle or in practice, with evidence to date pointing to the term being co-opted by many different actors according to often competing agendas and objectives (Silver et al., 2015; Voyer et al., 2018). To date the emerging literature on the Blue Economy has focused heavily on the lack of clarity and consistency around the many different interpretations of the term (Silver et al., 2015; Voyer et al., 2018; Winder and Le Heron, 2017), as well as the implications of this

incoherence for oceans governance (Hadjimichael, 2018).

Inherent in the contested discourses around the Blue Economy are the competing objectives, values and worldviews of the actors involved. In this article we focus on the private sector, which has been quick to embrace Blue Economy concepts and ideas as a means of recognising the value of investment and exploration of ocean based resources and services. Yet this primary focus on economic objectives is likely to be challenged and debated by actors with competing value systems, such as those who prioritise conservation and social equity objectives. Therefore, as the Blue Economy moves from a largely discursive construct towards practical applications, debates over the legitimacy of particular manifestations of the idea are likely to surface. These debates over legitimacy are likely to occur on three levels – at the scale of an individual project or activity, the scale of entire sector or use, including whether it can be considered to be ‘Blue’, and finally at the scale of the overall concept of a Blue Economy (eg see Hadjimichael, 2018).

At the first ‘operational’ level, the legitimacy of the activities or developments of an individual business are already mediated to some

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<h1>Blue Economy</h1>	
<p>Oceans as natural capital Focus on conservation objectives</p> <p>Favoured by environmental NGOs.</p> <p>Major sectors: Eco-tourism and MPAs, Payment for Ecosystem Services models, Carbon intensive industries (e.g. oil and gas) and deep sea mining excluded.</p>	<p>Oceans as a driver of innovation Focus on technological or technical fixes, including innovation hubs</p> <p>Favoured by industry and Governments and some research institutes</p> <p>Major sectors: All sectors especially emerging industries like renewables, biotechnology and deep sea mining.</p>
<p>Oceans as livelihoods Focus on poverty alleviation and food security objectives</p> <p>Favoured by Small Island Developing States (SIDS), Small Scale Fishing (SSF) advocates and development agencies.</p> <p>Major sectors: Small scale fisheries/eco-tourism, aquaculture. Precautionary approach to deep sea mining.</p>	<p>Oceans as good business Focus on economic growth and employment</p> <p>Favoured by industry, and larger global economies (EU, OECD, China etc.)</p> <p>Major sectors: All sectors but focus on large multi-national corporations and sectors – shipping, oil and gas, renewables and deep sea mining.</p>

Fig. 1. Blue economy ‘lenses’ (adapted from Voyer et al., 2018).

extent by a range of formal and informal ‘checks and balances’, including political and legal licenses. In addition, more recently the private sector has increasingly recognised the importance of obtaining and maintaining social support in order to ensure ongoing viability and political and social capital. This social support is often conceptualized as a ‘Social License to Operate’ (SLO) (Hall, 2015). Increasingly the private sector is therefore seeking to demonstrate the ways in which it is managing its environmental impact and operating as good corporate citizens through a plethora of means, including Corporate Social Responsibility (CSR) strategies, environmental reporting and accreditation or certification programs. To date, consideration of SLO has largely focused at the operational level in relation to individual, often geographically discrete, businesses or industrial activities.

At the second (sectoral) and third (cross-sectoral) levels there are at present no formal or informal ‘check and balances’ which articulate which industrial developments can be considered a legitimate component of the Blue Economy, or how the overall concept should be enacted in practice (Voyer et al., 2018). Given the lack of consensus over a definition for the Blue Economy, it is unlikely that there will be any formal guidance on this question in the immediate future.

This article, therefore, seeks to explicitly explore the role that the concept of SLO may play in the emerging Blue Economy, and in particular how private sector engagement with the expectations and concerns of stakeholders may be influenced by, and in turn influence, the different ways in which the Blue Economy is interpreted and operationalised. This article will thus explore how different Blue Economy sectors engage with communities, and the strategies they use to identify and address societal expectations and concerns. Furthermore, we problematize how these strategies are underpinned by certain values and discourses related to the Blue Economy. In doing so we seek to answer three research questions:

1. What are the dominant SLO practices that ocean industries employ in seeking societal support for their sector and operations?
2. How do these SLO practices incorporate conflicting expectations and concerns of communities and stakeholders?
3. To what extent do differences in Blue Economy discourses between actors influence SLO practices and expectations?

The paper seeks to address these research questions through a small, explorative case study based on both quantitative and qualitative data collection methods, involving ocean based private sector actors. The way in which SLO is currently understood and enacted within ocean industries was explored through direct engagement with members of the private sector, with a particular focus on attendees of the World Ocean Council Sustainable Ocean Summit of 2017 (WOC SOS). This conference is specifically focused on questions of improved environmental and social performance from the private sector and hence was a forum through which the researchers could access business people already actively engaged in questions around the transition to a Blue Economy. Given this method of recruitment it should not be assumed that the results are indicative of the broader private sector, but rather an insight into a specific subset of business people engaged in ocean industries.

This article will begin with exploring the definition and theoretical positioning of the concepts of the Blue Economy and SLO. After outlining the methodological approach to the research, it will then explore the practices and challenges of SLO in addressing the breadth of stakeholder expectations for the ocean industries we interviewed. Finally, it will outline how the findings inform our three research questions and present a theoretical framework illustrating the role that values play in SLO expectations and practices and how subsequently differing Blue Economy discourses may play a role in informing debates over legitimacy in the Blue Economy.

2. The many shades of the Blue Economy

The term ‘Blue Economy’ emerged out of the 2012 United Nations Convention on Sustainable Development (UNCSD), or Rio+20 conference. The concept seeks to extend on land-based notions of a Green Economy by drawing attention to development opportunities from the sustainable use of ocean resources. Whilst fundamentally based upon the core principles of Ecologically Sustainable Development, to date there is no commonly accepted definition of the Blue Economy. In practice the term has been employed by a variety of actors for a variety of purposes. Building on the earlier work of Silver et al. (2015), Voyer et al. (2018) confirmed four dominant conceptual interpretations of the

Blue Economy in current discourse and practice. These four ‘lenses’ (Fig. 1) were described as;

1. The ‘oceans as natural capital’ lens, which seeks to quantify the benefits of conservation and the economic opportunities that arise from increased protection of the oceans. The primary sectors or uses considered within this lens tended to be eco-tourism, Marine Protected Area (MPAs) and payment for ecosystem services models.
2. The ‘oceans as livelihoods’ lens, which frames the Blue Economy as a tool which can assist in addressing poverty and food security issues and build social and economic resilience in developing economies. The primary sectors considered within this lens are small scale fisheries and tourism.
3. The ‘oceans as good business’ lens, which emphasises the scale of economic contributions of ocean based industries to global markets in order to lay stake to the importance of these sectors and their capacity to deliver greater growth. In most cases the focus of this lens relates to large, multinational companies in the shipping, industrial fishing, oil and gas and mining sectors.
4. The ‘oceans as a driver of innovation’ lens, which promotes the seemingly limitless potential of the oceans by imagining them as sources of new discoveries and new wealth. The focus of this lens is largely technical and technological innovations across all sectors, with a particular emphasis on new and emerging sectors such as ocean based renewable energy, biotechnology and seabed mining.

Whilst interpretations of the Blue Economy vary, there are common elements which are consistent across all. Most significantly, all interpretations of the Blue Economy use the ‘ocean economy’ as a reference point. The ocean economy (also sometimes called the marine economy) refers to ‘that portion of the economy which relies on the ocean as an input to the production process or which, by virtue of geographic location, takes place on or under the ocean’ (Kildow and McIlgorm, 2010 p368). The ocean economy therefore includes a wide variety of sectors as outlined in Table 1 (Kildow and McIlgorm, 2010; McIlgorm, 2005; The Economist, 2015).

The extent to which the Blue Economy is differentiated from the broader ocean economy varies considerably across the different Blue Economy lenses (Voyer et al., 2018). In fact the inclusion or exclusion of particular industries from the Blue Economy ‘umbrella’ is one of the central points of contestation between the four competing interpretations. The ‘oceans as natural capital’ lens, for example, inherently rejects the inclusion of carbon intensive industries like oil and gas, and the extraction of non-renewable resources through seabed mining within the notion of a Blue Economy. The ‘oceans as good business’ lens, on the other hand, embraces these sectors and promotes efforts to ‘green’ all existing ocean industries and develop new and emerging

activities (Voyer et al., 2018).

The implications of these competing interpretations are yet to be played out, yet it highlights the possibility of the Blue Economy becoming a forum through which legitimacy of different private uses of ocean resources is contested and debated. This debate will centre most significantly on the future economic uses of the ocean space, and the role of private sector actors in ocean governance.

3. Conceptualising SLO practices for the Blue Economy

SLO is generally defined as ‘the ongoing acceptance and approval of an operation by those local communities affected by it and those stakeholder who can affect its profitability’ (R. Boutilier and Thomson, 2011; Moffat et al., 2016; Prno, 2013; Van Putten, Cvitanovic, Fulton, Lacey and Kelly, 2018). The concept reflects growing pressure to seek acceptance by stakeholders because of the decreasing public trust in government structures and processes and the legitimacy of governmental environmental regulation (Smits et al., 2017; Van Putten et al., 2018). This has been particularly pronounced in terrestrial mining projects, which increasingly face opposition and delays or are even discontinued (Prno and Scott Slocombe, 2012). SLO is therefore generally seen as a logical development in line with the paradigm of governance beyond government and growing empowerment of civil society (Prno and Scott Slocombe, 2012; Smits et al., 2017). Moreover, although the SLO concept was popularised by the mining industry it is increasingly also used in the fields of forestry, energy and agriculture, and is gaining increasing attention amongst ocean-based industries as well (Hall, 2015; Kelly et al., 2017; Moffat et al., 2016).

SLO literature can roughly be divided into two categories. The first focuses on those factors that relate to achieving and maintaining the social support for industrial projects, and is therefore largely instrumental in nature (see also Ford and Williams, 2016). The second category of literature takes a more critical perspective.

Literature relating to the instrumental aspects of SLO is largely concerned with the components of SLO, especially in relation to questions of how businesses, corporations or developments might gain and maintain social and political trust and legitimacy. It seeks to understand which factors might influence the achievement of SLO, including how SLO might be measured along a spectrum of complete rejection to full acceptance (or identification) (Boutilier, Black and Thomson, 2012; Prno, 2013; Prno and Slocombe, 2014). Achieving an SLO has been found to be dependent on a range of factors, including relationships between and with stakeholders, the distribution of social and economic costs and benefits, and concerns around environmental sustainability (Prno, 2013) and is influenced by biophysical, socio-economic and governance conditions (Prno and Slocombe, 2014). The notion of SLO extends the more business centric focus of CSR and recognizes the need

Table 1
Sectors that contribute to the ocean economy (adapted from The Economist, 2015).

Extraction of non-living resources, or resource generation	Harvesting of living resources	Commerce and trade in and around the ocean	Ecosystem protection and management
Seabed/Seabedbed mining Oil and gas	Fisheries Aquaculture	Shipping (ocean transportation) Shipbuilding and repair	Blue Carbon Surveillance and maritime security
Water (desalination) Dredging	Ocean bio-technology Recreational fishing and boating	Ocean construction (e.g. jetties etc.) Hazard protection	Habitat protection/restoration
Energy/renewables (tidal/wave energy; coastal/offshore wind)	Seafood processing	Port infrastructure and services Ocean services (e.g. mapping, monitoring, consulting, maritime insurance, etc.) Ocean education and R&D Coastal Development Ocean and coastal tourism Defence	Ecological/ecosystem research Waste treatment and disposal

for a more continuous support of stakeholders for economic activities (Hall, 2015; Kelly et al., 2017). In doing so SLO recognizes continuous engagement processes of private actors with social and political communities and actors (Filer and Gabriel, 2017).

The second category of literature critiques these more instrumental conceptualizations of SLO. For example, Owen and Kemp (2013) consider them to be risk averse. They argue that this limits discussion and debate on diverging expectations regarding mineral-led developments. Bice, Brueckner and Pforr (2017) add to that the need for attention to the structural and ideological influences that both shape and limit SLO agendas. Rather than treating the SLO as a license, they argue that the social element of this concept needs to be scrutinized in both a theoretical and empirical sense. Several authors emphasize that an SLO is very context-dependent as its concerns a social contract between business and local communities and stakeholders that is intangible in nature. This contract can be influenced by a range of factors, including meaningful and trusted dialogue and relationships between a business and communities (Van Putten et al., 2018), the beliefs and perceptions a local community and other stakeholders hold over the operation (Moffat et al., 2016) and the way in which democratic and political power is exercised (Curran, 2017; Meesters and Behagel, 2017). Core questions that emerge then are what constitutes a community, who may grant or take away an SLO, who is involved in shaping community acceptance (Moffat et al., 2016) and how balance between competing interests is created, by whom and under what terms (Bice et al., 2017). Moreover, the focus on local communities is being questioned as social support is also related to national and international scales and actors. This even extends to questioning the legitimacy of entire industries rather than a single company (or project) (Moffat et al., 2016).

In the remainder of this article we explore *how* dialogue is created with which communities and stakeholders (*who*) and on *what* kind of concerns. The *who* thus centres on the communities and stakeholders with whom private sectors engage. The *what* serves to understand which environmental and social sustainability issues and concerns are being deliberated in engagement processes. Finally, the *how* focuses on the means through which private actors seek to respond to and resolve these issues and concerns. For all three elements of the SLO we formulated a spectrum of possibilities (see Fig. 2) that allowed us to critically review the development of SLO and the way in which the *who*, *what* and *how* together form engagement practices of different ocean-based sectors. It should be noted, however, that all elements of *who*, *what* and *how* are fluid, evolving and dynamic in that they may vary according to spatial, temporal and relational influences.

3.1. Identification of stakeholders (*who*)

The focus on stakeholder and community support for industrial operations requires an initial consideration of who are the relevant stakeholders, or in other words – *who* ‘grants’ the social license? Identifying which stakeholders might influence SLO is a key challenge of SLO mentioned in the literature as there is a whole array of constituents that claim a stake in the developed industrial activity (Filer and Gabriel, 2017; Wilburn and Wilburn, 2011). In general the stakeholders identified to be most likely to be relevant to questions of SLO in ocean sectors fall broadly into two main categories. These are geographically discrete communities close to or surrounding the operations of a particular sector or industry such as immediate neighbours, regional communities and Indigenous people. These can be classified as ‘*communities of place*’.¹ Given the often offshore, and transboundary, nature of ocean industries, the second group of stakeholders we identify are not necessarily specifically linked to the geographical area in which

the activity is taking place but are identified as a stakeholder group due to their shared ideas, interest areas or value systems. These include various Non-Government Organisations (NGOs) and use groups (e.g. recreational fishers), groups that are increasingly vocal when it comes to ocean based industrial developments (e.g. see Brownlee et al., 2015; Filer and Gabriel, 2017). These are classified as ‘*communities of practice*’, after (and see also Harrington et al., 2008; Dare et al., 2014).

Consideration of the *who* question of SLO is considered to be critical to engaging with the competing interpretations of the Blue Economy, as it is different sets of actors who tend to subscribe to these. For example Voyer et al. (2018), found that environmental NGOs tended to view the Blue Economy through the ‘oceans as natural capital lens’, while small scale fisheries and development agencies viewed it through the ‘oceans as livelihood lens’. SLO considerations at a sectoral, and broader cross-sectoral level will therefore require engagement with the concerns and objectives of these competing interpretations and the stakeholders that identify with them.

3.2. Issues and concerns of stakeholders (*what*)

Following identification of the relevant stakeholder groups, it is then important to understand and identify the primary issues of concern which are likely to influence SLO. In other words, *what* impacts and concerns are raised by communities, and are there specific issues or perceptions that are of concern to these groups which need to be addressed in order to build or maintain their support and trust? This may differ across and within the stakeholder groups, according to a range of influences, including the values, beliefs and worldviews which underpin their notions of sustainability or appropriate use of the environment (Ratner, 2004).

While the *what* is often not conceptualized within SLO literature, the vast number of communities of both place and interest with a stake in ocean development and use creates an equally vast array of issues and concerns which these groups will prosecute. In general the array of issues can be loosely classified into two main areas. Firstly, *tangible impacts* related mostly to concerns over impacts on biodiversity or amenity, pollution or contamination issues, and some of the more concrete expression of economic and social impact and benefits. Secondly, however, there is also a range of intangible impacts relevant to SLO challenges and concerns, including conflict with other users or sectors over space and clashes of values and ideologies.

It is common for both communities of place and practice to raise concerns which both tangible and intangible categories of impact. The distinction between these impact categories is important, however, in that they are likely to be of varying relevance to the ways in which the Blue Economy is conceived and interpreted by different sets of actors. Tangible impacts are most likely to relate closely to the direct social, environmental and economic impacts, costs and benefits of an activity. The ‘oceans as a driver of innovation’ lens tends to focus heavily on developing innovative responses to addressing these tangible impacts. Intangible impacts such as conflicting uses and clashes in value systems will, however, most directly impact on perceptions of ‘fairness’, equity and inclusion which are fundamental to the social equity objectives of the Blue Economy (Bennett, 2018). The ‘oceans as livelihoods’ lens tends to be more significantly concerned with these questions of justice in their advocacy for more marginalised groups. Across all lenses, both tangible and intangible impacts, will impact the trust and legitimacy of the company or activity at stake, which means that SLO processes need to be able to identify and facilitate deliberation on both sets of issues during engagement practices.

3.3. Strategies employed to build relations with stakeholders and mitigate their concerns (*how*)

Finally, ensuring ongoing trust and support from stakeholders will require demonstrable evidence of efforts to address stakeholders’

¹ For the purposes of this research, we also included ‘*communities of identity*’ within this category – that is people who may not live in the affected area but who identify with it.

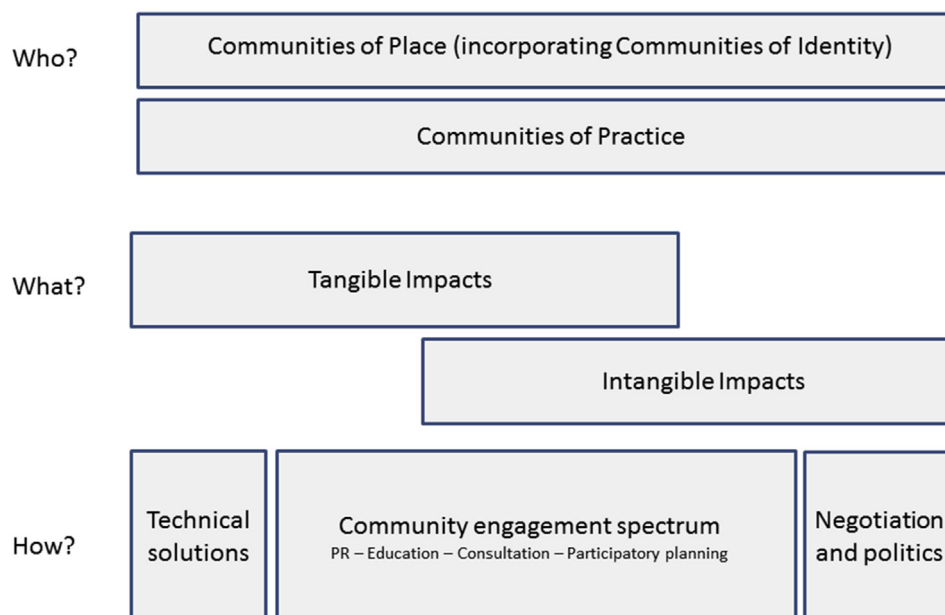


Fig. 2. SLO conceptual model: elements of who what and how.

concerns, or avoid potential future concerns (Parsons et al., 2014; Richert et al., 2015; Smits et al., 2017). These responses may take a range of forms. For example they may include addressing tangible impacts through *technical solutions* such as technological innovation or technical ‘fixes’. There is considerable focus on innovation within most interpretations of the Blue Economy, and it is especially important within the ‘oceans as a driver of innovation’ lens (Voyer et al., 2018). Another likely suite of strategies employed to address stakeholder concerns centre around *community engagement activities*, such as consultative and public participation mechanisms, as well as education and marketing (Dare et al., 2014). These tools, when done well, have the potential to play a critical role in identifying and addressing tangible and intangible (social) impacts, and facilitating inclusive decision making. An extension of these consultative approaches are more formalised *negotiation processes*, often facilitated by Governments, whereby trade-offs are made and compensatory mechanisms employed in order to address impacts that cannot be mitigated or avoided or are highly uncertain. Negotiation is central to the governance processes which underpin the Blue Economy, such as Marine Spatial Planning (MSP), especially in relation to managing multiple, and often conflicting, uses. In dealing with a suite of stakeholders, private actors are thus expected to use a variety of strategies to deliberate and resolve both tangible and intangible issues and concerns in building trust and legitimacy for Blue Economy developments.

4. Methods

A mixed methods approach was employed to unpack the three central questions of *who*, *what* and *how* for SLO practices in ocean industry sectors. The research followed a grounded theory method, using both qualitative and quantitative research, with each component of research informing and building upon the others. Data triangulation was employed to compare and contrast across the different methodological approaches, in order to build and develop a theoretical understanding of the relationship between SLO and the Blue Economy, using a discrete case study approach.

The initial fieldwork involved 20 in-depth interviews with business people engaged in ocean industries. Analysis of the data collected from the interviews involved thematic coding using NVIVO 11 qualitative data analysis software around the core questions of *who*, *what* and *how*. The primary themes identified were used to inform the design of the

other components of the research.

A second component of the fieldwork included a workshop at the World Ocean Council Sustainable Ocean Summit (WOC SOS). The WOC SOS workshop was attended by 24 participants. The workshop involved a presentation by representatives from five major ocean industries, including fisheries, seabed mining, offshore energy, shipping and oil and gas. These representatives discussed how their sector was considering the three central questions of *who*, *what* and *how*. The workshop then broke up into small round table discussions, which again focused on these three questions with a particular emphasis on areas of commonality and divergence between the sectors represented. The findings of these discussions were recorded on worksheets in each group. The worksheets were analysed using qualitative approaches consistent with the interview analysis.

Finally, a survey was distributed to business people involved in maritime industries through the WOC membership and communication channels, promotion at the SOS workshop, direct emailing of existing contacts in the private sector by the research team and social media posts via Linked in and Twitter. The primary themes the respondents were asked to address were based on common responses seen in the in depth interviews (see supplementary material for survey questions). The survey obtained 46 complete responses from twelve countries. Of these 13 responses were incomplete or were policy makers or researchers from universities or other institutes not considered directly relevant to this article. Therefore their responses were excluded, leaving 33 responses from relevant private sector actors in core ocean industries.

Across the interviews, survey and workshop the respondents were employed in a variety of organisations, from start-ups through to large corporations. The majority of respondents came from the following, traditional and emerging, ocean sectors, and hence these sectors are the focus of this article:

- Resource extraction: seabed mining, oil and gas operations,
- Ocean renewable energy,
- Fisheries and aquaculture, and
- Ports and shipping.

Further details of the project participants can be found in the supplementary material.

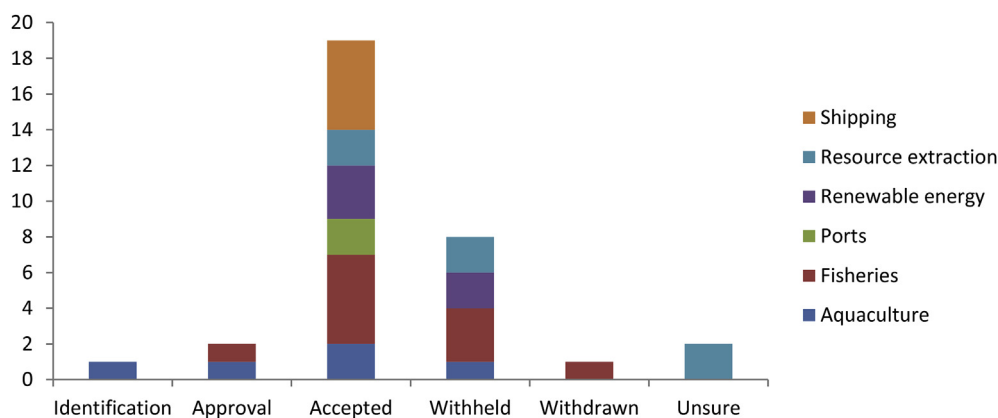


Fig. 3. Average level of SLO perceived to be held by sector.

5. SLO practices of ocean industries

Before investigating questions of *who*, *what* and *how*, the research first explored the extent to which the different sectors felt vulnerable to SLO, and associated political and legal license, challenges. In the online survey the majority of research participants (57%), selected the following statement as the most relevant for their sector; ‘our sector is accepted and/or tolerated but we have occasional issues of concern with social acceptability, such as with particular stakeholder groups’ (Fig. 3). This suggests that most of these participants felt somewhat vulnerable to challenges to SLO.

More than a quarter of respondents (27%) considered that their sector was dealing with a lack of social acceptability (withheld SLO) or was facing community rejection through protests, boycotts and legal challenges (withdrawn SLO). In particular the resource extraction sector and some forms of fisheries indicated a high level of vulnerability in relation to SLO. With reference to the mining sector, this vulnerability is perhaps born out of the level of scrutiny on their activities resulting from the legacy of environmental impacts of similar land based activities. The shipping industry, for example, does not have a comparable land based legacy and considered themselves as largely accepted. This may be linked with their confidence in the importance of the sector and the older, more established nature of the industry. The potential factors which might influence SLO across sectors are further explored in the following sections.

5.1. Who ‘grants’ the SLO for the ocean industries?

The data collected indicates a mix in the focus of the different sectors between communities of practice and communities of place. Sectors with a presence in more populated areas, unsurprisingly, had a greater emphasis on communities of place as their primary stakeholder groups. For example, one workshop presenter from the fisheries sector outlined the importance of home port communities and particularly highlighted the benefit of a long term, historic engagement with that community as crucial to the success of their business in maintaining a perceived high level of SLO. Aquaculture operators discussed the influence of close neighbours to their onshore facilities and residents with views that might take in their offshore facilities. Port interview participants referenced concerns over urban encroachment and changing demographics or gentrification around port lands, highlighting the fluid and dynamic nature of SLO in response to social, political and environmental change.

a lot of the older type of people are coming to live here. A lot of them are lawyers and that kind of thing. They start to complain, because they don't have any interest with [our company]. They see it as a burden.

Shipbuilding industry interview participant

However, relevant stakeholders might also include communities of practice, such as other resource users (private and non-private sector) including recreational fishers and Indigenous people. Across most sectors, Indigenous communities were considered to be of particular significance in relation to SLO. This group were highlighted as a distinct ‘community of place’ given they are often marginalised, and their legal rights to land and sea may be different to non-Indigenous communities and consultation with these groups is often mandated.

Communities of practice, particularly international NGOs, were a priority stakeholder group for resource extraction sectors operating in largely offshore, and remote ocean spaces. In these instances, interactions with environmental NGOs were often regarded as highly adversarial, with the arguments for and against extraction activities couched in terms of a battle for the hearts and minds of a wider constituency.

I think so much work and thought went into it ... there was a point though where it was tough and it's really when an..NGO ... launched a campaign and really, really tried very hard to break down some relationships we'd worked so hard to get.

Resource extraction interview participant

Understanding the *who* question was sometimes noted as a challenge for sectors, especially those operating in remote locations or in areas beyond national jurisdiction, where, in the words of one workshop participant, stakeholders could be considered to be ‘*everyone worldwide*’. The difficulties in identifying relevant stakeholders was exemplified in responses from members of the shipping industry, which tended to focus on the ‘hidden’ nature of shipping as a major challenge for their sector in building SLO. In the workshop and interviews they talked particularly about the ‘general public’ as their major stakeholder group given the fundamental importance of shipping for international trade, yet had trouble clearly articulating specific groups that were important to building and maintaining SLO. This challenge points to the problems associated with scale when determining a relevant community of place for SLO, with transboundary sectors such as shipping interacting with multiple and vast geographical communities.

The results of the internet survey (Fig. 4) largely supported the findings of the interview and workshop analysis. It demonstrated a high level of recognition of the relevance of all major stakeholder groups by most sectors, exemplifying a tendency to consider ‘everyone’ as relevant stakeholders. However there appears to be a lower level of engagement with communities of place for the resource extraction sector (incorporating oil and gas and seabed mining). Contrary to that, ports appear to have a stronger focus on communities of place, especially immediate neighbours, reflecting the static and localised nature of these activities. The survey indicated that they had the lowest level of concern in relation to interaction with other sectors, perhaps reflecting that port lands are often protected and prioritised in coastal planning and management.

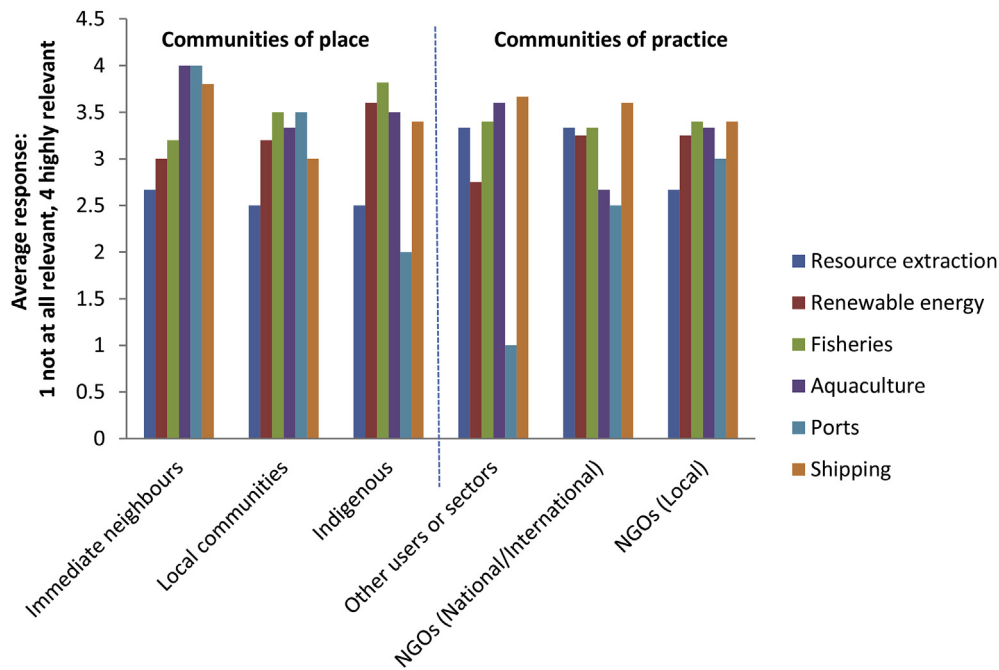


Fig. 4. Average level of importance of stakeholder groups by sector.

5.2. What are the primary SLO challenges for ocean industries

The survey results show that ocean industries recognise that a diversity of concerns exist amongst stakeholders, including a range of both tangible and intangible impacts (Fig. 5). All sectors appeared to have high levels of concern in relation to resource conflict between user groups and impacts on biodiversity. The resources and fisheries sectors were the most concerned in relation to ideological differences, with a sense that some sections of the community are opposed to their activities in any form.

There are NGOs who are very orthodox, very strict in everything and it's almost a religious discussion. They're very difficult to deal with because it's their belief against our belief. Then you have a standoff.

Commercial fishing industry interview participant

The interviews and workshop highlighted the fickle nature of SLO and a general level of frustration over the difficulties in adequately

prosecuting the case that individual sectors are worthy of community support. Many of these discussions highlighted the fundamental role of emotion, values, beliefs and worldviews in influencing SLO, and how difficult this could be to address using science based or technical responses.

Even if a project has a social licence you can so easily lose it, sometimes as we've heard through no fault of your own because somebody's decided they're fundamentally opposed to mining and so wants to try to wreak some havoc ... so how do we prevent that? Because I'm all for intellectual conversations and intellectual challenges based on science, but nobody should be able just to ... make something up, spread lies, or be violent.

Resource extraction interview participant

At the other end of the scale the renewables and port industries demonstrated lower level of agreement with the suggestion that the values and beliefs of the sector were at odds with stakeholders or the broader community. This may in part be due to an existing 'green'

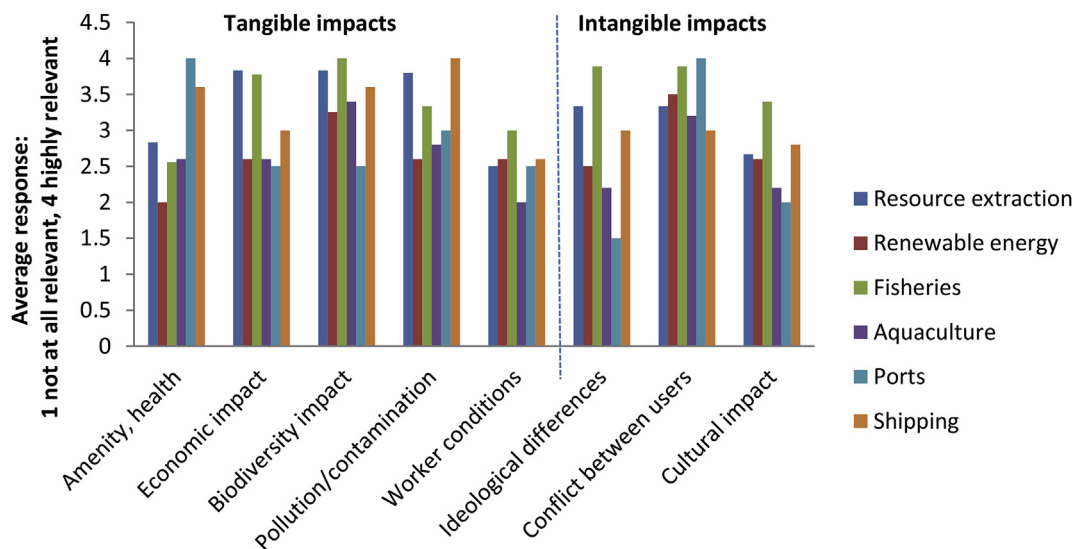


Fig. 5. Average level of importance of issues by sector.

image of renewable energy, whereby environmental benefits are obtained through providing an alternative to carbon intensive, non-renewable energy sources. There was a suggestion through the interviews that it may also be a reflection of the fundamental importance of these sectors for maintaining or improving existing standards of living for the communities they service.

...we don't expect much pushback at all. Part of it has to do with the fact that we're providing them a lifesaving commodity that they really, really need.

Renewable energy interview participant

Despite this, many of the interview respondents and workshop participants indicated tangible impacts as most relevant to their sector. Whilst the nature and type of environmental impacts were quite different, there were many similarities between the concerns of emerging sectors, including seabed mining, renewable energy and aquaculture. All these sectors highlighted the inherent difficulties associated with doing something 'new' in the oceans. For example, one workshop presenter from the renewable energy sector, indicated that *'the main problem is the remaining scepticism about these technologies. It takes a long uphill battle to develop the necessary trust'*.

5.3. How are ocean industries addressing SLO concerns?

The question of *how* ocean industries are addressing SLO considered three key categories of responses – technical or technological adaptations, community engagement and negotiation strategies. Overall the survey responses (Fig. 6) indicate that most sectors favoured technical responses to tangible impacts through research and innovation and impact management. The results for each of the three categories are considered in further details in the sections below.

5.3.1. Technical responses to tangible impacts

Throughout the interviews and workshop, participants from across the full range of maritime sectors indicated a broad array of often technical approaches to managing the identified SLO challenges for their sectors. There was a clear emphasis on developing new technologies and innovative responses to conducting operations and reducing impacts, particularly in the resource extraction sector where research participants outlined the often extensive measures undertaken to

detect, monitor and address environmental impacts. This included engineering responses in resource extraction and renewables sectors, gear modifications in fisheries and innovation and research around offshore aquaculture, such as improved feed opportunities.

It's very important that we have a feed that's not introducing anything in to the ocean environment that's foreign so we're looking into feed developments.

Aquaculture industry interview participant

5.3.2. Community engagement

There was universal acknowledgement that stakeholder engagement was a key aspect of addressing SLO concerns. The engagement tools employed took a number of forms. Some participants discussed consultation mechanisms they had put in place. Other participants focused on public relations strategies, including marketing and promotion. For example, workshop participants from fisheries and aquaculture industries discussed a range of strategies aimed at 'humanising' the sectors, through storytelling and linking consumers with the faces of the industry. Participants from the shipping and port sectors considered education of the general public about the role of ports and shipping in the economy as important, such as through open days and education campaigns, although there was a feeling that these were not always effective strategies:

We are the port, we manage the port but this is not our freight. We are facilitating the people and the businesses of [our region] to thrive and to maintain a high standard of living..you can actively inform people about how that works, but I've heard that people generally are not that interested in hearing about that. They basically just don't want to hear about freight, they just want it to work.

Port sector interview participant

Certification programs were highlighted as a useful tool through which some sectors, particularly fisheries, aquaculture, shipping and ports, were aiming to educate and inform customers of their efforts to improve sustainability and gain trust and legitimacy in the market place.

In sum, the results suggested a greater degree of reliance on, and comfort with, 'one way' information exchange such as public relations exercises, education programs and information days. Two-way

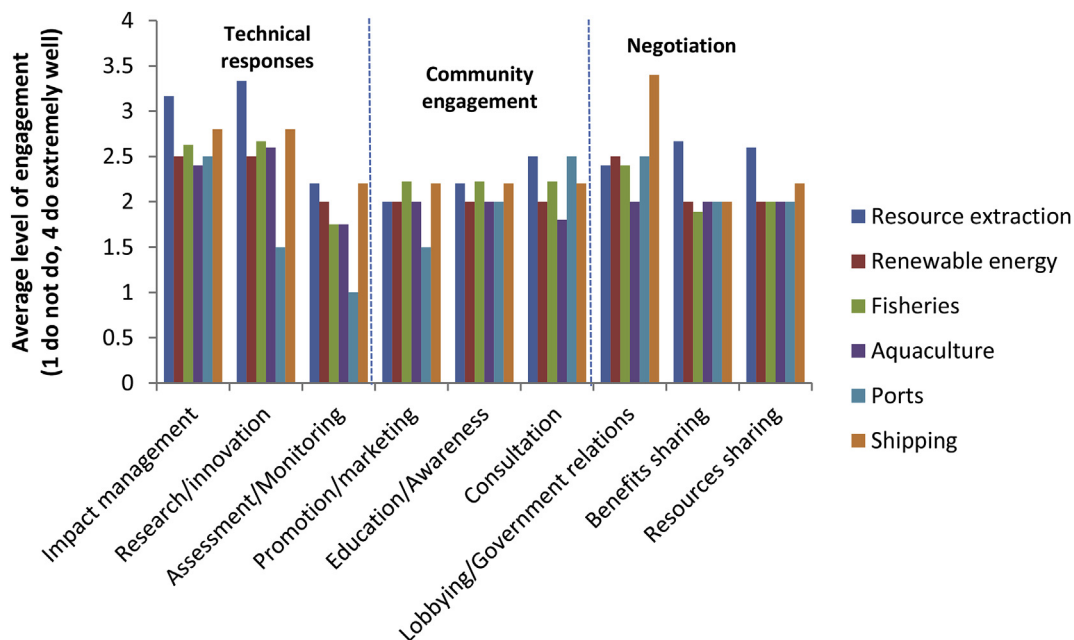


Fig. 6. Average level of engagement with responses and management strategies by sector.

consultative mechanisms, such as participatory processes, were less commonly discussed.

5.3.3. Negotiation

Finally, some participants talked about ways in which negotiations, trade-offs and lobbying played a role in their efforts to address SLO concerns. For example, one workshop participant discussed the benefit sharing strategies her aquaculture business proposed to employ in order to build SLO, which included a plan to donate a full cage of fish to food charities. Resource extraction sectors regularly include benefit sharing negotiations into their core business, including provision of compensation and royalties to impacted parties. Other examples of formalised engagement in negotiation strategies included participation in Marine Spatial Planning (MSP) exercises.

The process of negotiation and lobbying requires the formation of strategic alliances and the gathering of support information. For example, one workshop participant from the seabed mining sector particularly highlighted the importance of engaging with, and seeking feedback from, the science community as part of a broader SLO strategy:

The strategies to gain social license are to start early, transparent, inclusive, engagement including the most critical aspects of the activity; to approach the risks and potential issues with the world's best scientists while providing them with independence. These external experts represent an outsourcing of credibility.

Workshop participant - seabed mining

Despite the fact that SLO is not a formal license, it was clear from the interviews and the workshop that many of the participants in the study are increasingly seeing SLO as part of the formal, regulatory approvals process. This was particularly prevalent in the emerging sectors of ocean renewable energy and seabed mining. Interview and workshop participants from these sectors often focused on the pre-approval phase of operations when consultation and community engagement were seen as crucial in convincing legislators and political decision makers about the legitimacy and worth of their activities. Therefore, scientists and regulators appear to play an important role in legitimising and mediating negotiation strategies.

this social licence comes from a million different directions and every one of them has to be addressed. We have a regulatory environment [which includes] probably 10 or more different agencies that have to know what you're doing; sign off on it You still have to go through local [approval] processes and then you've got the other stakeholders. They can be surfers; they can be commercial fisherman. They all have something to say about it and you've got to address every single one of them.

Renewable energy interview participant

6. Discussion

Examination of the nature of ocean based private sector engagement with SLO provides insights into our three research questions. Firstly, we explore the dominant SLO practices that ocean industries are employing in order to seek societal support for their sector and operations. We then examine how these SLO practices incorporate conflicting expectations and concerns of communities and stakeholders. Finally we consider the extent to which differences in Blue Economy discourses between actors influence SLO practices and expectations.

6.1. Dominant SLO practices of ocean industries

Examination of questions of *who*, *what* and *how* identified the complexities involved in understanding and addressing SLO. One of the most fundamental challenges for marine industries is articulating the relevant stakeholder groups for each sector (*who?*) and linked to that, which concerns these stakeholders have (*what?*).

The challenge of articulating *who* is in part related to the transboundary, mobile and transient nature of some ocean based industries - especially fishing and shipping - and the largely remote and offshore nature of others - especially the resource extraction sectors. While the more static industries, such as offshore energy, aquaculture and ports, tended to predominately focus their SLO engagement around 'communities of place', especially neighbouring communities, the remaining sectors had a stronger emphasis on 'communities of practice', such as NGOs and other user groups. Emerging industries, such as aquaculture and renewable energy sectors, also experienced similar challenges in articulating the full array of stakeholders and concerns which were relevant to their interests. In these instances the issue often lay in the relative 'youth' of these sectors, with emerging technologies and new uses of the ocean space creating scrutiny not just from neighbouring communities but also a range of communities of practice with concerns or scepticism about how these new uses of the ocean may impact existing social, economic or environmental values. Understanding, addressing and prioritising often disparate and sometime contradictory voices and concerns from the various stakeholders was therefore seen as a key obstacle for SLO, and has significant implications for the *what* and *how* aspects of SLO. Without a clear understanding of who the relevant communities are, and how they interact with different ocean sectors, it is difficult to articulate the nature and extent of potential impacts. Given different types of activities are likely to impact different types of communities in vastly different ways (for example Indigenous communities may have quite different concerns about a port development than other communities of place). This creates significant challenges for addressing concerns relating to equity and justice in the Blue Economy (Hadjimichael, 2018; Voyer et al., 2018).

If we extend the *who* and *what* to also incorporate the *how*, we can conclude that the dominant focus of most sectors is on addressing the largely tangible environmental impacts of their activities, through technical and technological solutions (including research and innovation). In many ways this may reflect the backgrounds of the types of people usually engaged in the surveyed maritime industries, which is likely to tend toward more technical trades such as engineering, science or marketing. Community engagement tools are widely used, yet the focus of the tools used in community engagement tended towards methods of 'one way' information exchange such as public relations exercises, education programs and information days. Government lobbying is also a common practice across many sectors. When making use of these findings to inform the SLO conceptual model (Fig. 2), we can conclude that across the spectrum of SLO practices an emphasis lies on the left side of the model.

6.2. A values based understanding of SLO

Unpacking the *who*, *what* and *how* components of SLO points to a spectrum of increasing complexity with regard to communities engaged, the concerns influencing SLO and the strategies used to maintain an SLO. What we propose here, however, is that this spectrum is underpinned by the degree to which fundamental values and principles are shared, making a distinction between shared values, reconcilable differences in values and fundamental conflicts in values. In doing so we seek to increase understanding of how values and ideological beliefs influence SLO practices (Bice et al., 2017) as this distinction allows for a more grounded analysis of SLO practices and the extent to which it influences perceptions of legitimacy in relation to private sector use of ocean resources. Fig. 7 illustrates this spectrum, and the role that shared values may play in them, based on the findings of this research.

At the lowest level of complexity, SLO focuses largely on communities of place where values are largely aligned and concerns relate to tangible impacts which can be readily addressed through technological means or technical fixes. In this case, efforts to engage communities may simply require implementing the 'fix' and reassuring members of the public that their concerns have been heard and addressed through

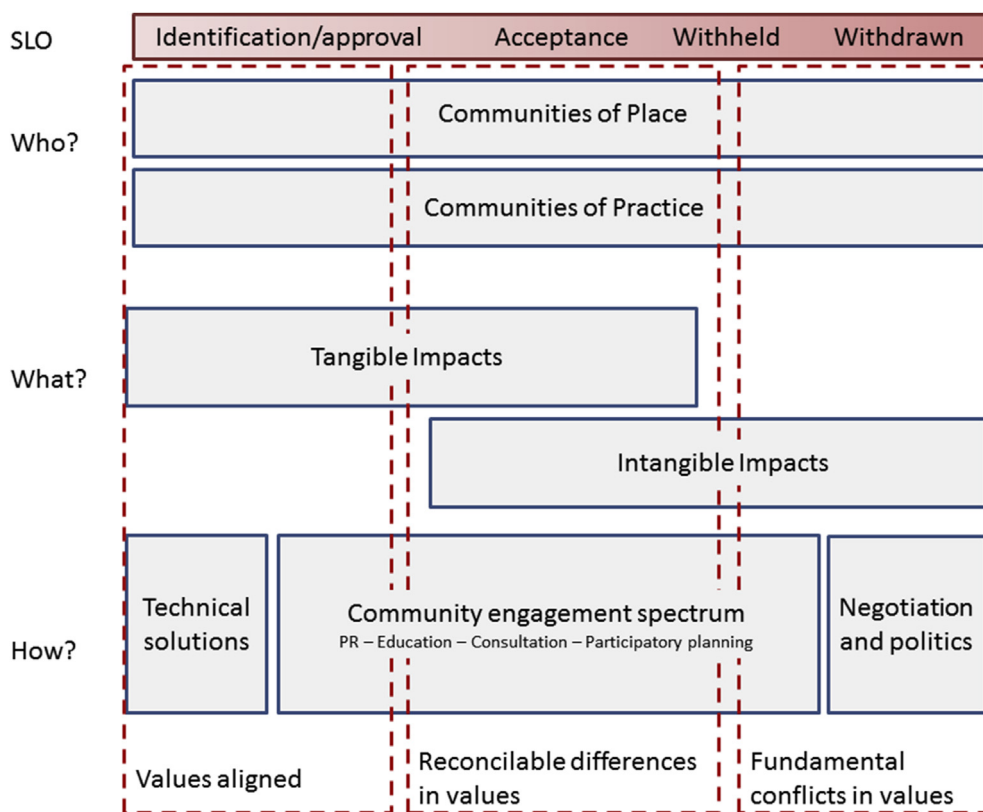


Fig. 7. A values based SLO conceptual model.

public relations activities and advertising. Examples of this simple SLO scenario were rare in the findings of this research, and tended to occur at an individual business level rather than a sectoral scale. One example included a well-established Canadian fishing company, with close historical ties to the local community and a long history of being an active part of the community, including an important source of employment. Their trusted position within the community was identified as fundamental to their perceived high level of SLO, and any issues or concerns were addressed quickly using in-house science and technical means.

A more complex SLO situation emerges when values may not be consistently shared but differences can be reconciled through a combination of technical responses to tangible impacts, and community engagement and negotiation around areas of more intangible impacts. The majority of businesses and sectors included in this analysis could be considered to fall within this second type of SLO. For example, participants from both the renewable energy and aquaculture sectors indicated the large amount of work that they were putting into consulting with communities, addressing technical concerns and negotiating with other users in order to progress their proposed development. In both cases they felt that their efforts had been largely successful because of fundamental support for their sectors and the products they would supply. Similarly, participants from the shipping industry felt that their industry was fundamentally supported, underpinning a sense of confidence that the industry was capable of addressing SLO challenges as they arise and also leading to a general sense of complacency about the need to actively pursue a SLO.

The final type of SLO is perhaps best demonstrated through the most controversial sectors, particularly the emerging seabed mining sector, oil and gas and some forms of commercial fishing. Research participants from these sectors in particular indicated frustration with the inability to ever fully address the SLO concerns of fundamentally opposed stakeholder groups. These stakeholder groups, predominately communities of practice, are influenced in their concerns and opinions by a shared set of values and beliefs which may or may not be consistent

with other communities with which the industry interacts or with the culture of the organisation itself. Addressing these concerns can be far more complex, especially if they are not explicit, or hidden beneath more technical debates of the nature and extent of tangible impacts. Therefore, at this more complex level, more fundamental differences between the values and beliefs of communities and industry may make SLO issues irresolvable.

6.3. The influence of Blue Economy discourses on SLO practices and expectations

When considering the intersections between the Blue Economy and SLO, we find that there are many consistencies between the challenges relating to competing Blue Economy discourses and the difficulties associated with determining if and how private sector industries can obtain and maintain an SLO. Despite all their efforts to engage with stakeholders, the vast majority of ocean industries who participated in this research, felt that their sector was largely accepted and/or tolerated but most felt that they had occasional issues of concern with social acceptability, such as with particular stakeholder groups. Those industries with more significant SLO pressures, particularly the resource extraction sectors, are also more likely to be the sectors which are contested within competing Blue Economy discourses. While much of the debate surrounding inclusion or exclusion of sectors from 'Blue Economy' narratives has to date focused on seabed mining and oil and gas, our research suggests that larger scale industrial fishing, aquaculture and renewable energy projects are also likely to be challenged as being 'Blue' by some actors.

The fundamental role of values in influencing questions of legitimacy in relation to use of ocean resources has significant implications for the extent to which conflicting interpretations of the Blue Economy can ever be fully resolved. This is because different communities of actors with competing sets of values are most likely to adhere to significantly different interpretations of the Blue Economy, with inherent,

and seemingly intractable conflicts over what sectors can ever be considered to be ‘Blue’. This is perhaps best demonstrated by the example of seabed mining, which is variously included and rejected within Blue Economy or Blue Growth discourses in the Pacific, the EU and the Indian Ocean, by a range of actors with largely contradictory views on the potential threats and benefits that seabed mining might provide (Filer and Gabriel, 2017).

Our research also suggests that the SLO practices of these ocean industries may speak primarily to interpretations of the Blue Economy which favour growth based narratives, and largely neglect competing discourses, and as such may alienate stakeholders with competing value systems. The emphasis on technical or technological solutions, for example, might address the priorities and objectives of the ‘oceans as good business’ and ‘oceans as drivers of innovation’ lenses, but is likely to neglect some of the principal concerns of actors who see the Blue Economy through the ‘oceans as livelihoods’ and ‘oceans as natural capital’ lenses. In particular these two lenses are likely to be more concerned with intangible impacts and competing beliefs regarding the industrialisation of the oceans, cultural heritage of coastal areas and questions of fairness and justice.

These findings point to the possibility that multiple ‘advocacy coalitions’, with shared values and beliefs, might emerge to challenge or defend the perceived legitimacy not just of individual sectors but also the Blue Economy as a whole (Matti and Sandström, 2013). These coalitions are likely to be active in policing, critiquing and challenging those discourses which consider the inclusion of sectors they do or do not consider to be ‘Blue’. The complex interaction of values, beliefs and Blue Economy discourses within advocacy coalitions may make negotiated outcomes far more difficult to achieve, and will be heavily influenced by the power dynamics that exist between networks of actors (Matti and Sandström, 2013). SLO practices that are too narrowly developed (e.g. are situated at the left side of Fig. 7) and speak to only one or two Blue Economy discourses are therefore likely to fail in obtaining the support of the vast array of communities and stakeholder groups our research identified.

7. Conclusion

This article aimed to critically explore the extent to which the practices of SLO of ocean industries might inform and be influenced by competing interpretations of the Blue Economy. While we started this article with an exploration of the SLO of ocean sectors by exploring issues of the *who*, *what* and *how*, we ended with a further consideration of the role of values and beliefs in SLO practices. In particular we categorised three ‘types’ of SLO challenges – the first whereby values were largely aligned, the second whereby there were resolvable conflicts in values and finally a third whereby values and beliefs were fundamentally in conflict. These are in turn related to SLO practices of respectively 1) a more simple and technical and/or technologically based strategy to address tangible stakeholder concerns 2) engagement strategies to consult stakeholder on how both tangible and intangible concerns can best be resolved, and 3) a more negotiation based SLO practice through which intangible impacts and fundamental conflicting views and values are deliberated with stakeholders.

The outcome of our case study indicates that most sectors operationalize SLO through the first two practices, i.e. using technical strategies or one-way engagement strategies. While this approach appears to favour the Blue Economy discourses of ‘oceans as good business’ and ‘oceans as drivers of innovation’, in these instances, competing interpretations of the Blue Economy are unlikely to be problematic. This is because values are aligned or reconcilable and SLO is likely to be more readily obtained and maintained. The case study also showed that ocean industries struggle with deliberating successfully with those communities of place and interest that have conflicting values, such as environmental or developmental NGOs. These communities are also likely to interpret the Blue Economy in a different

way. It might well be that these communities also have different expectations than industry over what engagement should look like and how and which concerns are treated, resulting in feelings of frustration at both sides and possibly active opposition and loss of SLO.

While it is inevitable that conflicting value systems will always be there, a more advanced SLO practice of negotiation and political deliberation is needed to engage with stakeholders to manage these conflicts in a meaningful way, as outlined in our conceptual framework. However, this first means that ocean industries need to recognise the influence of value systems and competing Blue Economy discourses on expectations and concerns of the different communities with whom they interact.

Fundamental conflicts in values also point to questions of legitimacy of the inclusion or exclusion of particular sectors within the Blue Economy ‘umbrella’. This may well be beyond the scope of individual businesses or even sectors to resolve and highlights the importance of broader societal and political engagement in questions about appropriate use and management of private sector activities in the ocean. The increasing industrialisation of the ocean will be closely scrutinized by civil society and will require active engagement with questions of the different ways the notion of sustainability is conceived within society (Ratner, 2004). Without active consideration of these questions societal trust in the broader concept of a Blue Economy will be undermined, as the loss of SLO in one sector may have implications across all Blue Economy sectors, and lead to concerns about ‘blue-washing’. Advancing the Blue Economy will require active and critical engagement in questions around the shared responsibilities of multiple, diverse and often competing public and private actors, in building and maintaining SLO, with specific attention given to underpinning values. The concept of a Blue Economy in itself does create a potential forum around which this can occur, given its ‘big picture’ focus on integrated governance across multiple sectors. Hence while traditionally regulators and government institutions usually focus on the issuance of political and legal licenses, this research identifies the important role that these institutions may need to play in SLO as well, including consideration of appropriate methods for understanding, managing and monitoring SLO. Models and methods for democratising decision making in relation to Blue Economy planning and management should also be explored, as well as opportunities to mediate between conflicting value systems and beliefs in appropriate use of ocean resources.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.resourpol.2019.02.020>.

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