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REVIEW

What is the Blue Economy? A spatialised governmentality perspective

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Abstract

The Blue Economy is a recent economic development paradigm, being promoted worldwide as a way to deliver sustainable ocean development in the context of the sustainable development goals. Research has drawn attention to its contested nature and the propensity of sectoral interests to co-opt it to their own ends. An emerging body of critical studies of the Blue Economy, as practiced, provides an opportunity to address the question "What is the blue economy?" in new ways. This review of published empirical case studies initiates a conversation between governmentality concepts and place-space–time theory, aiming to open new lines of enquiry regarding the influence of spatiality on the nature of governance. This approach has allowed the elucidation of a complex and nuanced understanding of the Blue Economy, complementing earlier discourse and content analyses. In relation to Blue Economy governance, I pose the specific question, "Does place matter?", leading to an interrogation of material and spatial relations in Blue Economy governance. I describe a complex spatialised governmentality, dominated by growth-based imaginaries and market-led practices. I draw attention to the production of ocean space through socio-material Blue Economy relations and the material and spatial contingency of its governance. Finally, I draw a distinction between "place" and "location" which has important consequences for Blue Economy governance.

Keyword Blue Economy; Governmentality; Material; Spatial; Place; Space-times

The advent of the Rio + 20 conference in 2012 stimulated a rapid convergence of interests around the concept of the Blue Economy (BE). This linking of ocean governance and economic development arose from a growing concern regarding the status of the ocean's resources and their management and the search for a suitable conceptual framing as the basis for a new push for sustainable ocean policy (Silver et al. 2015) at a time of rapid international policy development (Sustainable Development Goals—SDGs, small-scale and rights-based fisheries policies, and various high seas enclosures for conservation, seabed mining, etc.).

Voyer et al. (2018) trace the origins of BE to the Bruntland Report (1987) as a manifestation of sustainable development thinking in which the environment is exploited for societal needs but protected at the same time. Similar to the "green economy" it emphasises market-based instruments to address environmental threats (Arsel and Büscher 2012; Castree 2010a, b; Corson et al. 2013). The BE paradigm presents the ocean through competing discourses—as a space for wealth creation in response to continued world poverty and inequality, and as a threatened and vulnerable ecosystem in need of protection in response to profound changes resulting from climate change, pollution, over-fishing, and habitat destruction. BE conceptions have reframed the oceans in the manner of a land-based resource assemblage,[1] rather than an inhospitable realm to be explored and feared. As such it can be managed and developed, allocated as property, opened to markets, and governed (Winder and Le Heron 2017). The Blue Economy is subject to an emerging body of scholarship (e.g. *Categorisations*: Eikeset et al. 2018; Voyer et al. 2018; Winder and Le Heron 2017; Kathijotes 2013. *Regional examples*: Patil et al. 2016, 2018. *Potentials*: Potgieter 2018; Pauly 2018; Sakhuja 2015). Bennett (2018) draws attention to concerns regarding social justice and inclusion in the development of the oceans and highlights ten consequent risks for the ocean economy (Bennett et al. 2021): (1) dispossession, displacement, and ocean grabbing; (2) environmental justice concerns from pollution and waste; (3) environmental degradation and reduction of ecosystem

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[1] An assemblage comprises a collective of heterogeneous elements (stakeholders, technologies, materialities, etc.), stabilised for a time through diverse relations (Anderson and McFarlane 2011).

services; (4) livelihood impacts for small-scale fishers; (5) lost access to marine resources needed for food security and wellbeing; (6) inequitable distribution of economic benefits; (7) social and cultural impacts; (8) marginalization of women; (9) human and Indigenous rights abuses; and (10) exclusion from governance. For Campling and Colás (2018), the oceans are a space of "terraqueous territoriality" in which socio-natural power relations effected through capitalism actively shape the spaces of the ocean.

In this paper, I utilise the concept of governmentalities as an epistemological framework for BE research, alongside the theory of space-times and development, in an attempt to lay the foundation for a more spatialised perspective on BE governance. That is, a perspective more attuned to the unique material qualities of the oceans, the complex ecological processes and fluidity of the sea and life within it, and the consequences of place-based human–environment relations. The inadequacies of the terrestrially derived concept of "territory" as a unit of ocean management have been pointed out (e.g. Steinberg and Peters 2015; Campling and Colás 2018; Peters 2020), various authors juxtaposing bounded ocean territories (such as Exclusive Economic Zones, or EEZs) to which management is applied with the extensive and fluid marine ecological systems which they intersect, one having little relation to the other.

Whilst we might think of the BE as representing a particular governmentality (or a rationality of government), how is this governmentality manifested in materially and ecologically different places, for example a port versus the open ocean? This raises the important question of how is governmentality translated into action, and does "place" matter? This is a particularly timely question as the oceans are being rapidly territorialised, often in the name of the BE, through the implementation of marine spatial planning (Boucquey et al. 2016) and the creation of large zones in the open oceans—for nature conservation or extractive activities, for example.

In the following sections, I review published research on the BE paradigm, from critical geographies scholarship, before introducing the conceptual frameworks I use in this review to glean new insights into the spatiality of ocean governance. The "Methods" section presents the approach I take to this review and the selection criteria for selection of cases, and is followed by a narrative based on my analysis. Finally, I discuss the findings in relation to the research questions, and draw some conclusions.

The Blue Economy—a contested paradigm

Whilst much effort has been expended by international actors (e.g. World Bank, UNEP, WWF) to develop and promote BE policy, there remain contested aspects amongst multiple economic and political actors. Indeed, who is an actor itself remains contested as the legitimacy of certain sectors (e.g. carbon-intensive industries like oil and gas, and the emerging industry of deep seabed mining) to be considered a component of the BE is questioned by some, especially communities and NGOs that reject growth-based values (Voyer and van Leeuwen 2019). Inevitably, whilst the BE remains conceptually fluid, different interests seek to frame the BE to suit their priorities and worldviews. At Rio + 20, Silver et al. (2015) identified competing discourses prioritising "natural capital", "good business", and "livelihoods" framings. Voyer et al. (2018) later add an innovation framing, encompassing the co-occurrence of sub-themes relating to investment, innovative financing, and private sector involvement in Blue Growth strategies. This serves to illustrate the continuing evolution of the BE paradigm, reflecting Silver et al.'s (2015:153) observation that opportunity remains to "further adopt or subvert the term in ways that advance diverse objectives, progressive politics, and governance practices". Nevertheless, should we not be able to explain what characterises the Blue Economy as a development paradigm? Recent scholarship presents a significant number of empirical case studies, mostly from a critical perspective, that may provide sufficient evidence for that question to be answered.

Amongst that body of scholarship, a growing "degrowth" discourse presents a range of alternatives to dominant capitalist, growth-based societies (e.g. Hadjimichael 2018; Ertor and Hadjimichael 2020; Kerschner et al. 2018; Weiss and Cattaneo 2017; Cosme et al. 2017). Degrowth theorists and practitioners support an extension of human instead of market relations, demand a deepening of democracy, a defence of ecosystems, and a more equal distribution of wealth (Schnieder et al. 2010). Less radical are calls to reshape capitalism recognising local social and environmental diversity and needs (Fullerton 2015), and to privilege diverse, parallel economies (Gibson-Graham 2014). A recent special section on BE degrowth in the Journal *Sustainability Science* provides much material for analysis (see Ertor and Hadjimichael 2020). In the main, this body of work is grounded in Marxist theory and political ecology, foregrounding social injustice embedded in capitalist economies. Other research deploys content analysis (e.g. Voyer et al. 2018), and assemblage thinking (e.g. Winder and Le Heron 2017), but very little scholarship to date approaches the BE from a governmentality perspective (but see Choi 2017). This gap should be urgently addressed as governmentality has the potential to provide insights both into the emergent character of the BE and to inform how policies should be formulated and enacted in the future. Furthermore, as the ocean is spatially and materially heterogeneous, the influence of these factors on the efficacy and therefore mode of governance demands

attention. In the next section, I set out the conceptual frameworks I use to explore these issues.

Conceptual frameworks

In this review, I use two analytical lenses: the concept of governmentality and theory regarding place-space-times (both of which are introduced in the next section). In doing so, I aim to generate new insights into emerging practices of BE governance and how these are mediated by spatial and material relations.

The concept of *governmentality*, the *process of governance* as distinct from the *institution of Government*, was introduced by Michel Foucault (1991, 2008). Foucault's major contribution was to recognise that modern rule was exercised through the deployment of tactics and the construction of knowledge rather than the imposition of law. Thus, governing is enacted through the construction of certain truths and their circulation via normalising and disciplining discourses and practices that enrol society in the act of governing (Foucault, 1991). Governmentality has been widely applied, and critiques focus more on research practice than fundamentals (e.g. McKee 2009; Rutherford 2007). In the context of *environmental governance* then, the governmentality perspective gets to the heart of power. As Rutherford (2007, p295) puts it, "ways in which the environment is constructed as in crisis, how knowledge about it is formed, and who then is authorized to save it become important for understanding the ways that the truth about the environment is made, and how that truth is governed". Studies of modern government through the lens of governmentality have revealed that governance as a manifestation of power takes place in multiple sites, through different discourses, and often outside the traditional boundaries of the state (Dean 2009, Allen 2004; Murdoch 2006; Rutherford 2007; Ettlinger 2011). A growing body of literature attends to the concept of "green governmentality" and multiple governmentalities in environmental governance (see Fletcher and Cortes-Vazquez 2020) but the Blue Economy is yet to feature. There have, however, been a few studies of the BE as discourse (as noted earlier), discourse being an important element of the operationalisation of governmentalities.

For Foucault, discourses are an important manifestation of power and it is through discourses that governance is enacted. They shape how we know the world and thus also constrain how we act in it. Foucaultian discourses are more than a "worldview" (i.e. being representational; Hook 2001); they are contextually contingent, both historically and socio-materially. In legitimating how we act (Winkel 2012), they are closely imbricated in the "conduct of conduct" (Foucault 1991), and therefore of governance and governmentalities. Spatial imaginaries are regarded as *representational* discourses of spaces and places, but have more recently also been recognised as *performative* (Watkins 2015) and so more in tune with a Foucaultian conception of discourse. Both discourses and imaginaries, therefore, are fundamental to the operationalisation of governmentalities. That is, they shape how problems of government, such as sustainable ocean management, are rationalised, what and whose knowledges are used in that rationalisation, what practices are therefore proposed, and what relations result. Multiple discourses and imaginaries signify the possibility of political struggle. Using governmentalities as an analytic of government is helpful in shining a light on relations of power and knowledge *and what governmental practices result*, so providing a much richer account than discourse analysis on its own.

Whilst governmentality is recognised as having spatial dimensions (Murdoch 2006), these have been related more to scale (centre and periphery; governing at a distance) than to the governance of "*place*". Indeed, it is hard to find reference to place in the governmentality literature (but see Balke et al. 2018 and Lee and Herborn 2003 which both concern urban infrastructures). Rutherford (2007, p303) makes the important point, to the context of this study, that "power is enacted somewhere – not just as a metaphor but as a spatial reality. Power works through institutions, governments, corporations and bodies that are material and particularly located." Power is a constituative act of inclusion and exclusion (Torfing 2009), and so is central to the nature of these relations. In the introduction I ask, does place matter in relation to how governmentality is manifested in the BE paradigm? To answer this challenge necessitates further development of the spatial dimensions of governmentality to include an understanding of space and place, and the related concept of time.

The concept of space-times is common to mathematics, physics, and geography and has its roots in Greek philosophy (Malpas 2012). Whilst each discipline has its own analytical and descriptive approaches, they share fundamental concepts and principles. In geography, space is considered to be an open and extended condition which is defined by the ordering of things in relation to each other (Massey 2005). Time is an ongoing sequence of events out of which things come into being. Thus, a space–time is an ordering of things following emergent trajectories, and is therefore contingent of historical events and spatial relations. Massey (2005) stressed the existence of a multiplicity of space-times for this reason. Drawing on Escobar's critique of the hegemonic western development perspective (of "developed" countries being "ahead", and "undeveloped" countries being "behind") she used space–time theory to argue for more acknowledgement of alternative development futures. Malpas (2012) sought to bring place more fully into consideration, echoing Rutherford's (2007) emphasis on place as a site of governance.

Malpas sees place, rather than an open and extended condition, as a *bounded space–time*. Malpas considers place, space, and time as inextricably linked, through the concepts of *boundedness*, *openness*, and *emergence*. Reviewing the origins of the concepts of place, space, and time, he argues that a shift has occurred in geographical theory to the idea of space being infinite extension and that boundaries are considered incidental (Massey 2005) or non-existent (Thrift 2006). Malpas makes the case instead that boundedness is fundamental to relational geography. In a philosophical sense, boundedness presupposes difference, and difference presupposes relationality. Furthermore, it is boundedness that "establishes a certain oriented locatedness". Thus, in Malpas' view, boundedness can be thought of as the possibility of orientation and location, or establishing a "here" and a "there" and so differentiating place.

I use these concepts as analytical frameworks in the following ways:

> Governmentalities According to Dean (2009. p31), an analytics of government "examines the conditions under which regimes of practices come into being, are maintained and are transformed……These regimes …. include, moreover, the different ways in which these institutional practices can be thought, made into objects of knowledge, and made subject to problematizations." Thus, Dean's framework, in its simplest form, has three components:

- *Problematisation of current practices of government*, i.e. how is the problem in need of governance framed and the favoured solution rationalised?
- *Creation of a utopian vision*, i.e. how is the objective or outcome of government articulated to the population
- *Operationalisation of regimes of government*, i.e. how is the vision to be achieved, through what practices and institutions of control?

Thus, a Foucaultian *analytics of government* aims to identify its constituent elements and relations and how they are assembled and stabilised as organisational and institutional practice. It considers the knowledges on which the regime is based or which legitimise it, and how these knowledges might be challenged. It examines the technologies and mechanisms through which practices operate, achieve their goals, and effect governance.

> Place-space-times Malpas' (2012) argument that place is a bounded space-time rests on the characteristic of space being extension, or *openness*. Extension is "a making room for" but also "an enclosing around". Thus, space is open but also bounded. Being open creates "space" for appearance, for coming into being, or *emergence*. This emergence Malpas claims is the origin of time, reflected in movement, becoming, events, etc. Being *bounded* recognises difference and therefore relationality and creates the possibility of location. Thus, we can equate boundedness broadly with place, openness with space, and emergence with time, although this is to overly simplify their inextricable relationships and interdependencies. This ontology enables us to analyse the constellations of social and material relations (the topologies and topographies of space of Deleuze, Massey, etc., see Murdoch 2006) that result from governance of ocean space. In particular, this analytic enables insights into the very character of place (its boundedness), its potentialities or risks in response to governance (openness, or open space), and what are the outcomes (emergence) of practices of governance.

In the next section, I describe how cases were selected for this review, and outline the analytical process. In the "Results" section, I present differing perspectives of the Blue Economy, from both governmentality and place-space-times perspectives, in the form of two complementary narratives based on analysis of the selected cases. In the discussion, I address my central question of "does place matter?", developing new insights into the spatialised governmentality of the BE.

Methods

This is a review article, using sources published in peer-reviewed journals and aiming to understand the state of knowledge regarding the Blue Economy, through the lens of spatialised governmentality, as understood from empirical case studies. I address the research question "how is BE governmentality manifested in materially and ecologically different places?" and the related question "does 'place' matter?" in the context of how BE governmentality is put into practice.

Literature search

To select articles for analysis, primary and secondary search terms and strings (Table 1, A and B) were compiled. Blue Economy and a variety of derivatives (blue growth, blue finance, blue carbon, etc.) formed the primary terms. Secondary terms are drawn from the critical geographies literature, selected inductively on the basis of the initial literature review (not the reviewed papers) and the author's knowledge of critical geographies literature, and grouped in categories chosen to represent the scope of scholarship on this and similar topics. The use of critical geography

Table 1 Hierarchy of search terms

A. Primary search terms

Blue Economy	Blue governance	Blue/wet ontologies
Blue Growth	Blue bond	Blue carbon
Blue wealth	Blue finance	Blue energy
Blue degrowth	Blue grabbing	Blue future(s)

B. Secondary search terms / synonyms

Governance	non-state actors	resistance
hybrid environmental governance	State	politics
neoliberalisation	institutions	knowledge
financialisation	power	
privatisation	scale	**Environment**
marketisation / market-based		climate change
commodification		biodiversity
	island	deep sea
	coast / coastal zone	
	ocean	

Primary and secondary terms were grouped, as indicated in the matrix below, to rationalise the number of searches. For example, Search 1: "Blue Economy" or "Blue Growth" or "Blue wealth" or "Blue degrowth" AND "hybrid environmental governance" or "non-state actors" or State or institution or power or resistance or politics or knowledge or governmentality or environmentality or "technologies of government" or imaginar* or " development trajector*" or "Sustainable development goals"*
A search was performed for each cell in the matrix following the same formula

	Secondary terms (grouped - see part B, above)				
Primary terms, below (grouped for efficiency)	**Governance**	**Capitalism**	**Spatial**	**Relational**	**Environment**
Blue Economy or Blue Growth or Blue wealth or Blue degrowth	By way of example this search string yielded 251 returns in Web of Science				
Blue governance or Blue future(s)					
blue finance or blue bond or blue grabbing					
blue/wet ontologies					
Blue carbon or Blue energy					

C. Critical geography terms used to filter search results

Assemblage	Justice
Governmentality	Materiality
Imaginaries	More-than-human

Table 2 Empirical cases analysed in this study

Authors	Title
Andriamahefazafy and Kull. (2019)	Materializing the blue economy: tuna fisheries and the theory of access in the Western Indian Ocean
Andriamahefazafy et al. (2020)	The paradox of sustainable tuna fisheries in the Western Indian Ocean: between visions of blue economy and realities of accumulation
Aschenbrenner and Winder (2019)	Planning for a sustainable marine future? Marine spatial planning in the German exclusive economic zone of the North Sea
Bogadóttir (2020)	Blue Growth and its discontents in the Faroe Islands: an island perspective on Blue (De)Growth, sustainability, and environmental justice
Carver R (2019)	Resource sovereignty and accumulation in the blue economy: the case of seabed mining in Namibia
Childs (2020)	Performing `blue degrowth': critiquing seabed mining in Papua New Guinea through creative practice
Childs and Hicks (2019)	Securing the blue: political ecologies of the blue economy in Africa
Choi (2017)	The Blue Economy as governmentality and the making of new spatial rationalities
Ertör-Akyazi (2020)	Contesting growth in marine capture fisheries: the case of small-scale fishing cooperatives in Istanbul
Karnad and St. Martin (2020)	Assembling marine spatial planning in the global south: International agencies and the fate of fishing communities in India. *Maritime Studies*
Kaşdoğan (2020)	Designing sustainability in blues: the limits of technospatial growth imaginaries
Kyvelou and Ierapetritis (2019)	Discussing and analyzing "maritime cohesion" in MSP, to achieve sustainability in the marine realm
Nogué-Algueró (2020)	Growth in the docks: ports, metabolic flows and socio-environmental impacts
Said and MacMillan (2020)	'Re-grabbing' marine resources: a blue degrowth agenda for the resurgence of small-scale fisheries in Malta
Satizábal et al. (2020)	Blue economy discourses and practices: reconfiguring ocean spaces in the Philippines
Schutter and Hicks (2019)	Networking the Blue Economy in Seychelles: pioneers, resistance, and the power of influence
Winder and Le Heron (2017)	Assembling a Blue Economy moment? Geographic engagement with globalizing biological-economic relations in multi-use marine environments

terms as selection criteria flows from the governmentality analytic lens and consequent interest in social and environmental justice and the important role of power relations and materiality in governance.

In assembling search terms, we are actively framing knowledge, and hence this must be done reflexively. My aim was to develop a simple descriptive framework of the Blue Economy domain which can be further developed as the domain evolves.

There is much related literature on ocean economy, ocean materiality, its social construction, etc. However, this is not framed as Blue Economy scholarship and therefore is not included in this review.

Searches were run on Scopus, Web of Science, and ProQuest databases in April/May 2020. Searches were restricted to articles published in peer-reviewed journals, in the English language. A total of 635 articles were secured. Initial review showed that many made only perfunctory reference to the BE, claiming a relevance but engaging another topic, such as marine spatial planning or aquaculture. Only articles which meaningfully engaged with BE as a concept were selected for analysis, numbering 231. Still a large number and very diverse in scope, a further filter was applied using relational terms from the critical geographies literature (Table 1, C). Articles containing any of these terms were included, totalling 28. Of these, 17 were empirical cases (Table 2), which were analysed for this review.

Texts were coded using NVivo v12 for iOS, using a high-level framework of 6 codes representing the governmentality and place-space-times analytic frameworks, thus: problematisation; utopias; regimes of practices/boundedness; openness; emergence. The coded data was then organised into mind maps in abbreviated form, grouped inductively into themes, then narrative summaries produced (see "Results" section). These were then analysed inductively for common governmentality and spatial themes, which form the basis for the discussion.

Results

Coding the content of the selected papers according to the six analytic categories of the conceptual frameworks (Governmentality: problematisation, presentation of utopias, regimes of practices; place-space-times: boundedness, openness, emergence) produced a minimum of 74 and up to 225 coded sections of text per category, generating rich data sets.

The intention in this analysis is to identify the full scope of each respective dimension of analysis (rather than, for example, making comparison between the reviewed papers). Coded instances of the 6 dimensions of analysis

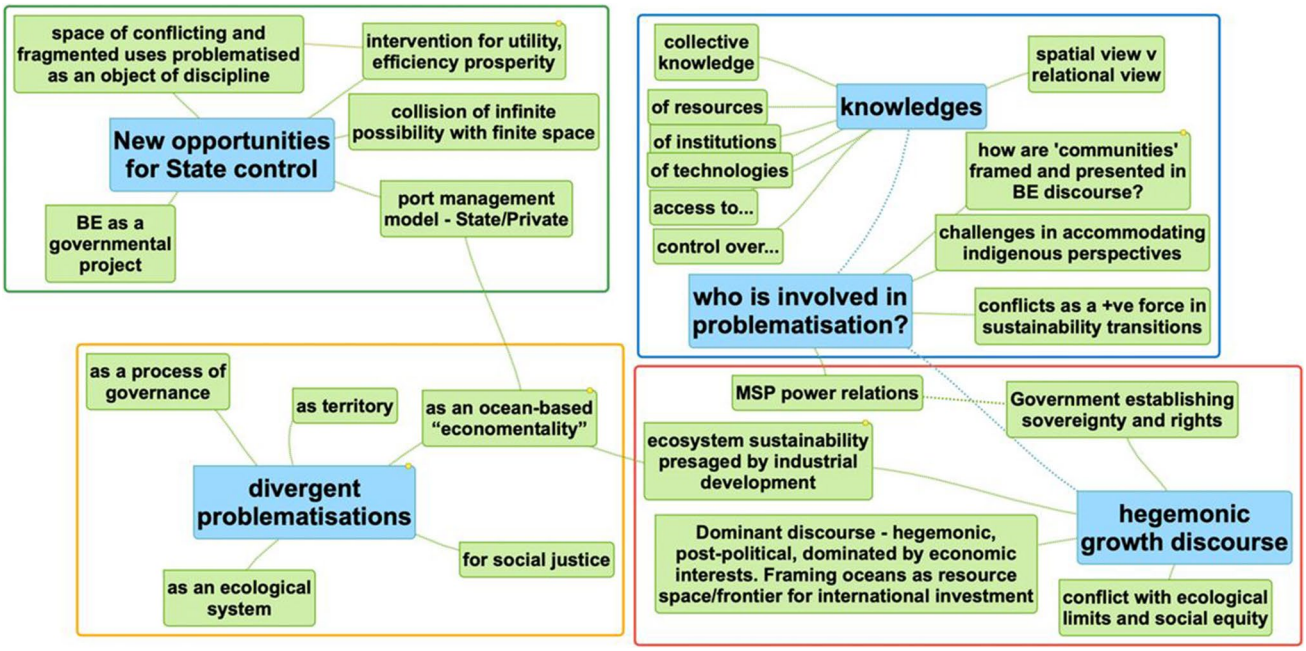

Fig. 1 Mind map depicting thematic structure of "Problematisation" node following textual analysis. This provided the basis for the narrative description of results (see the Appendix Figs. 7, 8, 9, 10, 11 and 12 for the full version of mind maps)

were transferred to a mind-map format to enable grouping of related "types". This enabled categorisation of the various governmental and spatial elements present in the reviewed papers. In effect, this approach attempts to reinterpret the results of these papers and their interpretations by their authors, in a spatialised governmentality framing. The discussion in this paper focusses on what can be learned from this collective analysis of diverse empirical cases.

This coded content is presented as two narratives, one for each analytical perspective. In most cases, both discourses and counter-discourses are described, but only as far as these are developed in the data sources.

Governmentality perspective

a) Problematisation of current practices of government (Fig. 1)

BE is characterised by **divergent problematisations** of government, created by different stakeholders. Problematisation refers to the ways in which the need for government is framed, and to the knowledges used to underpin that framing and to rationalise the proposed solution. In the papers analysed, these elements of problematisation were commonly bound up in the imaginaries reported by the respective authors, in which the predominant characterisations or imaginaries of the oceans as BE spaces to be governed are: oceans as an ecological system (Aschenbrenner and Winder 2019; Kaşdoğan 2020); an ocean-based econementality (Nogué-Algueró, 2020); oceans as territory (Aschenbrenner and Winder 2019; Kyvelou and Ierapetritis 2019); oceans as a site demanding social justice (e.g. Said and MacMillan 2020; Childs 2020; Ertör-Akyazi 2020).

As an **ecological system**, the oceans attract divergent perspectives of their role in a Blue Economy. These range from oceans as economically productive ecologies (Kaşdoğan 2020), sometimes quantified or monetised as natural capital (Satizábal et al. 2020), to the ocean as a dynamic, living, material, relational, unbounded domain (e.g. Aschenbrenner and Winder 2019) embodying not only traditional, natural resource-based livelihoods, but also indigenous spiritual "one-world" cosmologies (e.g. Childs 2020) very different from more commercially driven BE perspectives. This is in contrast to an "**econementality**" (Nogué-Algueró 2020) in which oceans are seen as spaces to be governed for economic gain. Dominant, powerful (mainly commercial and governmental interests) characterise the oceans as an economic frontier, a resource space to be enclosed to aid exploitation, in similar terms to the "green economy". "Blue Growth" becomes the overall goal of governance and oceans may be valued in units of GDP (Choi 2017). State territories become a myriad of "institutional investment projects" (Winder and Le Heron 2017) promoting high growth sectors such as the bio-economy. Economism, prioritisation through an economic calculus, is promoted through technoscientific discourses (Kaşdoğan 2020). BE features strongly as **territory to be governed**, reflecting the creation of Exclusive Economic Zones (EEZs) as "sovereign territory" (actually

sovereign *rights*; Carver, 2020) which created the possibility of State control and to which the BE is a response. Territorial governance features spatial zones of resource distribution (Aschenbrenner and Winder 2019) or functional uses, enclosure as property, and multi-use potentials (Kyvelou and Ierapetritis 2019).

A **hegemonic growth discourse** is widely evident, post-political in nature and dominated by economic interests, framing the oceans as a resource space and frontier for international investment, combined with the new opportunities for state control afforded by the creation of EEZs. Thus, BE is seen as a "governmental project" (Choi 2017) - the sea is problematised as a space of conflicting and fragmented uses in need of management. New governable spaces are opened up and new ways of governing rationalised, the oceans perceived as "underdeveloped frontier spaces through which infinite possibilities of "better" uses are imagined, institutionalized, and invested". Such rationales have led to the favouring of industrial fisheries over artisanal and small-scale fisheries (Said and MacMillan 2020), and the institutionalisation of the sea as a development space leading to more intensive and extractive uses (e.g. Choi 2017; Nogué-Algueró 2020), spatially dispersed according to natural features (e.g. "Estuaries with deep water channels, an uncommon topographic feature with the capacity for accommodating containerships, are developed as industrial container ports" Choi 2017:39). The State's role is to optimise resource use and in doing so is acting "responsibly" on behalf of citizens, as highlighted by Childs (2020:118): "As the former Minister for Mining who oversaw the granting of the lease, Byron Chan, stated, the 'PNG government is committed to ensuring that our mineral wealth is harnessed in the most optimal and responsible way'". Nevertheless, many instances of conflict are detailed in which this hegemonic growth discourse is in conflict with ecological limits ("..a sustainability narrative, in which the idea of fishing within ecological limits is present within government policy, public discourse, and practices, is, however, in contradiction with the realities of accumulation and growth that prevail…" Andriamahefazafy et al. 2020:75), is poorly in tune with the materiality of the oceans ("..the discourses of Blue Bioeconomy and Blue Growth and their underlying ideologies combine to create a landscape with expanding production facilities and expanding infrastructure, powered and fuelled through increasing resource extraction and use. Rather than leading to a reduction in energy and material throughput, these ideologies are maintaining and forging new resource-intensive dependency paths for Faroese society." Bogadóttir 2020:112) or at odds with traditional imaginaries and so creating social *in*justice. Concerns regarding appropriation of resources from traditional users by State and corporate interests lead to calls for social justice, for fairness, and for equity (e.g. Said and MacMillan 2020).

In summary, the principle rationality of government for Blue Economy development that is apparent in the papers reviewed is a need for economic growth, based on the natural wealth of the oceans and rationalisation of activities through State control.

b) Invention of utopias to be pursued (Fig. 2)

In Dean's framework, utopias represent the belief that government can be effective and achieve desired goals. How are these beliefs and goals presented to governed subjects? Again, imaginaries and discourses (as with Problematisations) are powerful vehicles for enrolling support for particular approaches or courses of action towards specific aims. The BE is suffused with conflicting imaginaries—economic, sovereign, and community imaginaries featuring strongly—which are underpinned by divergent understandings of sustainability.

The **economic imaginary**, not surprisingly for the BE, appears as pre-eminent. Blue Growth is its overarching discourse, although there is also recognition that economic development should deliver environmental conservation within the BE paradigm. Blue Growth attempts to re-frame economy as economic practices that reflect ecological conditions and harbours a number of discourses. The BE is seen as a container full of unexploited wealth (Kaşdoğan 2020). It targets under-utilised resources (e.g. Blue Bio-economy), but exhibits little recognition of biophysical limits to growth and thus leads to ecological distribution conflicts (Bogadóttir 2020). Techno-spatial growth imaginaries promise sustainable production through environmental remediation, but may create licence for continued waste production (Kaşdoğan 2020).

The **Sovereign imaginary** revolves around the creation and control of territory. UNCLOS allows the creation of new marine territory (EEZs), codified in law, and representing new economic frontiers. However, such frontier and development imaginaries are often misconceived (modelled on landed imaginaries) and at odds with material and spatial reality, leading to failed utopias. In Namibia, Carver (2019) highlights the struggles between traditional fishing and emergent mining interests as the State seeks to exert its sovereignty over its maritime domain, ostensibly for the benefit of all Namibians. Sovereign imaginaries are also less than they seem, due to the influence of non-State actors, such as Development Finance Institutions and private corporations, for example, able to deploy resources to gain influence and control (e.g. Karnad and St Martin, 2019; Aschenbrenner and Winder 2019) not only of agendas but of space itself.

Community imaginaries are often driven by sustainable use of resources, resist the economisation of life, and recognise community wellbeing above economic efficiency. They embody more equitable wealth distribution, promoting

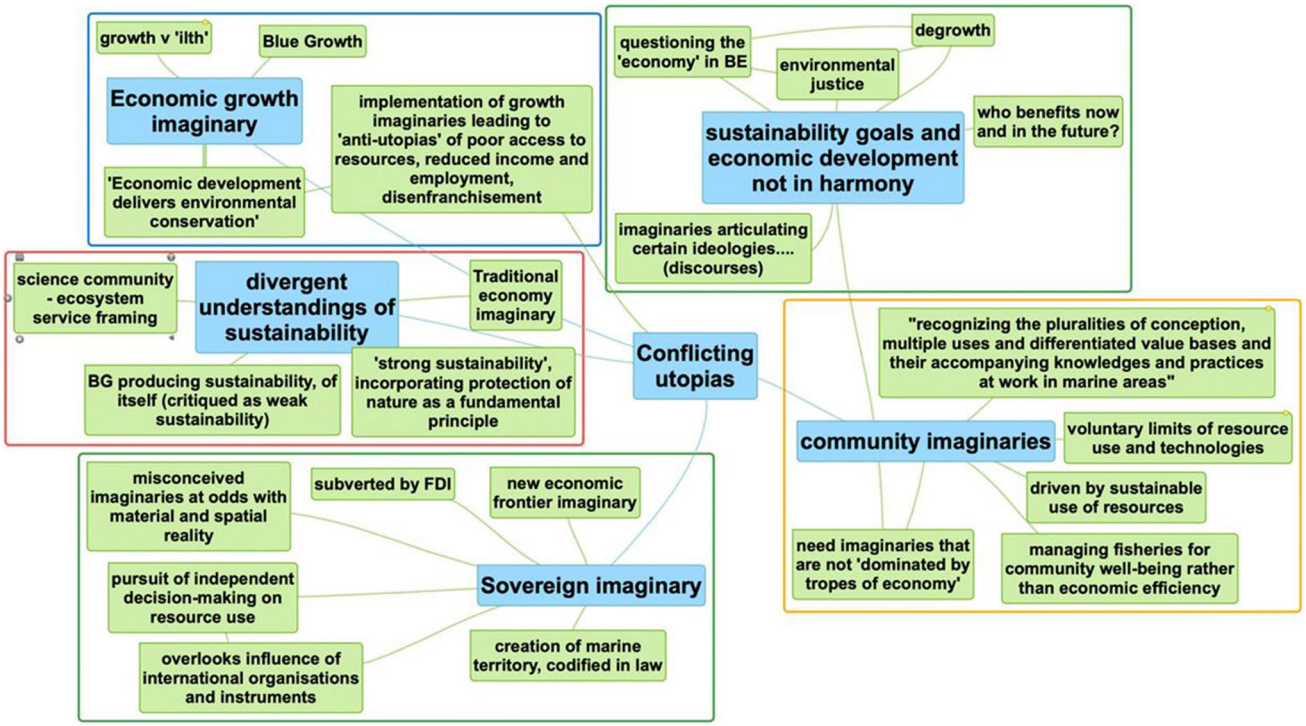

Fig. 2 Mind map depicting thematic structure of "Creation of utopias" node following textual analysis. This provided the basis for the narrative description of results (see the Appendix 7, 8, 9, 10, 11 and 12 for the full version of mind maps)

"re-grabbing" for parallel, diverse economies (Said and MacMillan 2020) and communal allocation and management of resources with equitable market access. The lack of such imaginaries leads to decline in small-scale fisheries and other traditional sectors brought on by commodification and industrialisation. Community imaginaries should resist the tropes of economy, and recognise "the pluralities of conception, multiple uses, and differentiated value bases and their accompanying knowledges and practices at work in marine areas" (Winder and le Heron 2017:18).

iii) Regimes of practices (Fig. 3)

Utopian visions and the pursuit of open potentials of the BE result in the imposition of regimes of practices as the ultimate manifestation of particular rationalities of government. In the cases analysed, we see diverse regimes of practices deployed to operationalise the BE. The role of the State is central, though not universal. Technological and market practices exist alongside national licencing systems and marine spatial planning practices.

National licencing systems control access to resources and so operationalise the governance regime. Licences and permits govern use of marine space (e.g. fish farms in the Faroes. Bogadóttir 2020) and aim to optimise spatial use and sustainability, usually supported by assessment methodologies (EIA, Livelihood Impact Assessment, etc. Winder and Le Heron 2017). Access agreements may give rights to third country parties (Andriamahefazafy and Kull 2019) generating resource rents for the state (Carver 2019). Differing jurisdictions will use different controls and practices, which may be historically contingent. These regimes are often fragmented (Carver 2019), being designed ad hoc in response to individual needs. International frameworks and standards can superimpose global (Western) practices over State systems (e.g. Karnad and St Martin, 2020), which are distant from local politics and give rise to alternative (Non-State) dispute resolution mechanisms (e.g. International Finance Corporation standards for project implementation impose rigorous evidence requirements which marginalise local knowledge and effectively exclude local resource users). Colonial practices of exploitation can be perpetuated through adoption of historically contingent practices (e.g. mining in Namibia: "While the state has been positioned as an "abstract landlord" of the now independent Namibian territory, there remain substantive similarities between colonial and contemporaneous relations regarding issues of "sovereignty, territory and mineral resources"", Carver 2019:396).

Marine spatial planning (MSP) is a relatively new regime of practices for spatial plan making and resource allocation through licences and permits, which is promoted as an essential planning process for the BE. MSP aims to balance economic development with ecosystem health through an assemblage of practices, data layers, legal rulings, and so on (Karnad and St Martin, 2020). However, it has been critiqued as a post-political process (e.g. Aschenbrenner and

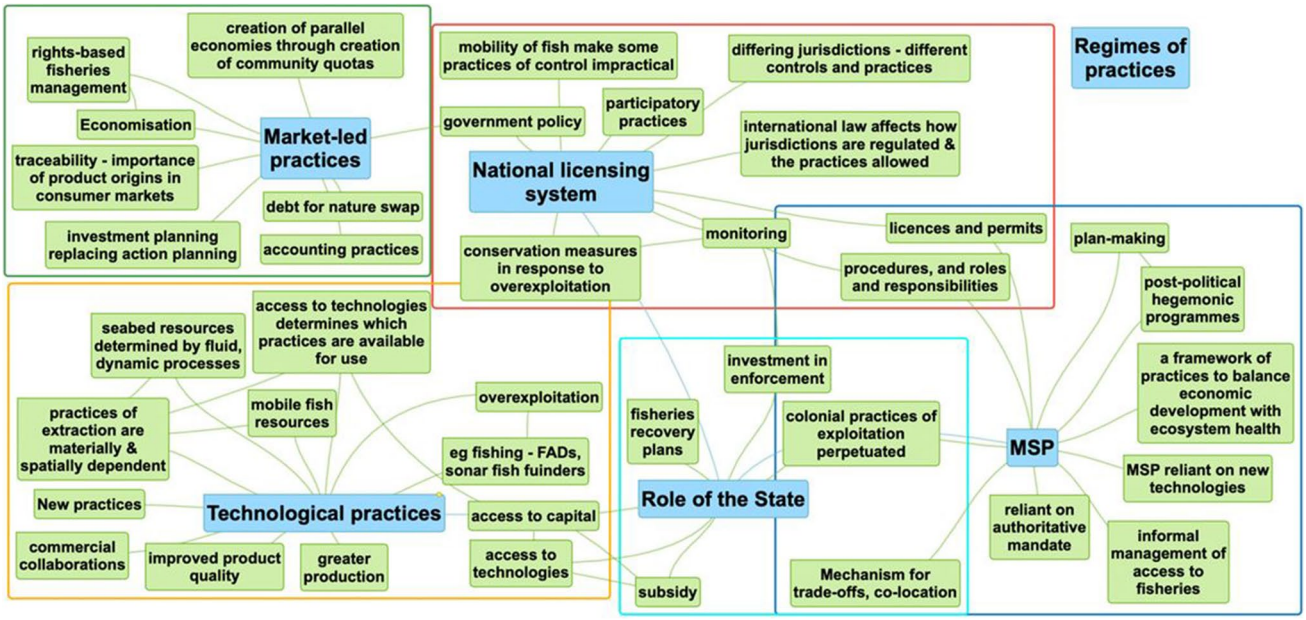

Fig. 3 Mind map depicting thematic structure of "Regimes of practices" node following textual analysis. This provided the basis for the narrative description of results (see the Appendix Figs. 7, 8, 9, 10, 11 and 12 for the full version of mind maps)

Winder 2019), foreclosing debate through various practices employed which reflect predetermined objectives, and is not the neutral apparatus it may be claimed to be.

Technological practices can support sustainability (e.g. improve product quality) but also lead to overexploitation of resources. This is exacerbated by access to capital which enables the introduction of new technologies and greater production (e.g. fishing in Malta. Said and MacMillan 2020). Practices of mineral extraction are spatially and materially dependent, seabed resources being determined by fluid, dynamic processes of sedimentation or volcanic activity for example (Carver 2019). Their accessibility is dependent on new technologies for seabed mining and new governmental practices for their regulation.

Market-led practices are enabled by the State, through the establishment of institutions to support the economisation of nature—valuing natural capital, blueprinting new business models, creating new financial instruments (e.g. blue bonds), etc. (Satizábal et al. 2020). Rights-based management is fundamental to market-led systems, aiming to incentivise long-term stewardship of resources. Introduction of individual transferable fisheries quotas (ITQs) in fisheries alters power relations, leading to inter-communal conflicts and shifts from owner operators to capitalised corporate ownership with little tie to local traditions or labour norms (e.g. Malta. Said and MacMillan 2020), invoking calls for the creation of parallel economies that offer protection to community traditions and livelihoods. Some market mechanisms can be deployed to incentivise conservation, such as labelling and traceability of products to bring consumer pressure to bear on managers and operators, or conditional financing specifying the creation of MPAs (e.g. Schutter and Hicks 2019).

Spatiality perspective

iv) Boundedness (Fig. 4)

The concept of boundedness captures the difference between things—to be bounded is to be different. This manifests in many material and social relations, for example open oceans versus inshore waters, development zones versus marine protected areas, collectives of offshore wind turbines versus shoals of tuna.

As an analytical lens, boundedness emphasises **material and spatial relations and their co-production** through social relations. Ocean space is produced through a coming together of many factors in unique constellations of relations. Analysed cases emphasised the geophysical nature of the sea (e.g. Carver 2019), its three-dimensional quality and fluidity, the mobility or fixity of resources, and material flows (e.g. Nogué-Algueró 2020; Bogadóttir 2020) as fundamental in shaping space. These factors affect methods of appropriation of resources by the State or private actors, and the materialised forms of the BE in the contexts of infrastructure, projects, and territories. Competition for space between users, technologies for resource extraction, and relations between marine and terrestrial resources and activities have both spatial and relational effects to produce space. Economic relations also play a role in co-producing space—financial instruments and investment of capital

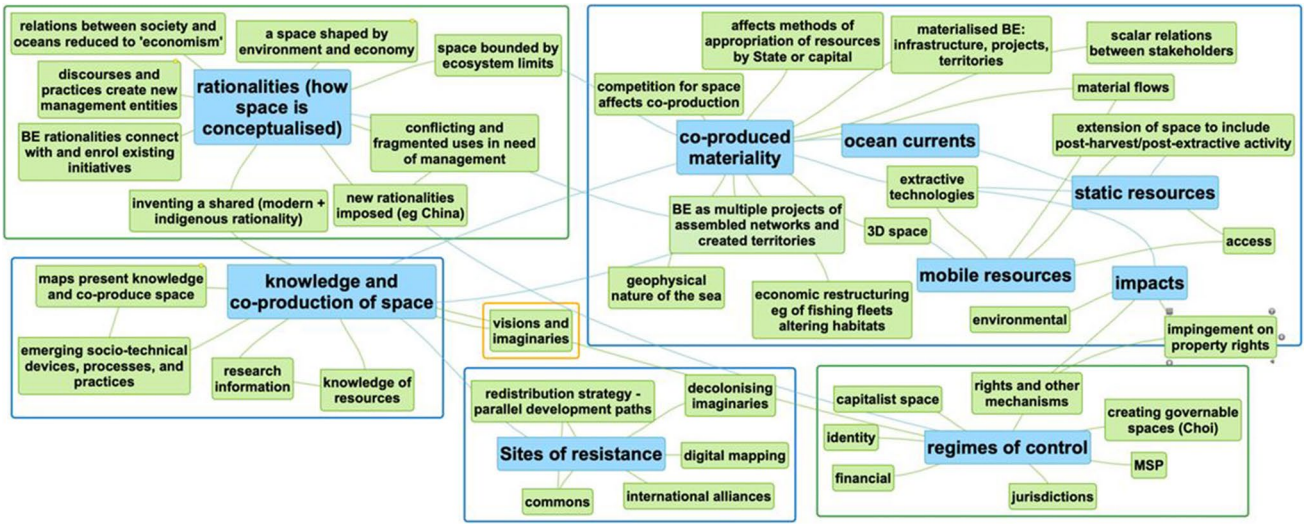

Fig. 4 Mind map depicting thematic structure of "Boundedness" node following textual analysis. This provided the basis for the narrative description of results (see the Appendix Figs. 7, 8, 9, 10, 11 and 12 for the full version of mind maps)

creating pressures, trends, and opportunities leading to change. Economic restructuring of fishing fleets for example produces different effects on the seabed or fish stocks (e.g. Said and MacMillan 2020), altering the nature of ocean spaces.

State control is effected through laws and operational institutions (Ministries, Agencies) applying to bounded jurisdictions, which may be operationalised as spatial zones or sectoral (e.g. shipping, mining) regimes of control. These typically apply to types of resources and specify types of uses and apply certain rationalities of control. Typically, such jurisdictions are multiple in marine space, especially in coastal areas where marine and terrestrial jurisdictions overlap and in territorial waters (12 nautical mile zone, as distinct from 200 mile EEZ) where sovereign powers exist. Discourses and practices create new management entities (Satizábal et al. 2020):

- Territorialisation encloses and controls spaces.
- Discourses perform a strategic (re)ordering, regulation, and control over resources, assigning meanings, values, and actions upon others.
- Complex marine spaces are rendered into legible, manageable, and bounded systems enabling economic opportunities.
- Each territory materially reflects financial flows, property rights, and other boundary demarcations.

Thus, new territories are established, such as MPAs or mineral concessions, with associated market opportunities (e.g. ecotourism in Malta. Said and MacMillan 2020; phosphorus mining in Namibia. Carver 2019). New abstract entities are produced to develop new markets for non-extractive goods such as carbon credits, and resources which cannot be economically valued and enclosed may be excluded or overlooked (Satizábal et al. 2020:215). Thus, "The Philippine blue economy only denotes elements that are economically valued and can be managed through territorial enclosures." Jurisdictions produce rights which both constrain and create opportunity. Rights are mostly bounded by relation to jurisdictions or use zones (e.g. Aschenbrenner and Winder 2019; Bogadóttir 2020; Satizábal et al. 2020), the creation of which contributes to the configuration of oceans as development frontiers. Property and licences for use generate rents and direct revenues from extraction (fish, minerals, etc.) and potential for political conflict (e.g. Namibian mining concessions. Carver 2019). Powerful interests (with access to capital) seek to influence policy agendas regarding the creation and nature of investable spaces (e.g. Aschenbrenner and Winder 2019).

Introduction of new socio-technical devices and processes (e.g. grid-based locational technologies—GPS and digital mapping) creates new ways to exert power over space through **deployment of knowledge**. They influence how ocean resources and space are known, allocated, and utilised. They enable the bounding of territory at sea and the allocation of property in ways not before possible. For example, in Indian waters, practices of environmental impact assessment for internationally supported oil exploration created zones of inclusion/exclusion based on types of data (published scientific assessments) that were highly restricted by institutional standards, thereby excluding traditional knowledges (Karnad and St Martin, 2020). Such spatial zones (e.g. arising from MSP-like processes) can obscure a lack of data and yet present an appearance of complete knowledge, legitimating policies based on scant evidence. Counter movements, in

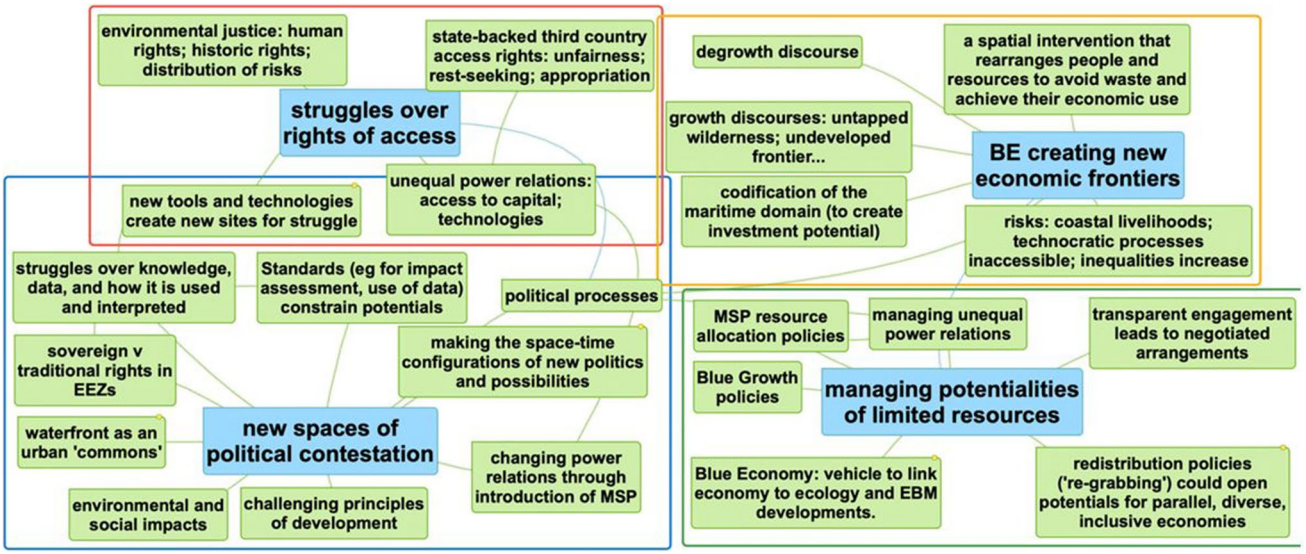

Fig. 5 Mind map depicting thematic structure of "Openness" node following textual analysis. This provided the basis for the narrative description of results (see the Appendix Figs. 7, 8, 9, 10, 11 and 12 for the full version of mind maps)

response to State and corporate-led resource mapping and enclosure, aim to re-present traditional knowledge to influence governance—an engagement in ontological politics. Traditional governance mechanisms deploy different rationalities and measures regarding spatial understanding and bounding of territory, adapting to the fluidity of the oceans and limits on its knowability through rudimentary technologies (e.g. Childs 2020).

Sites of resistance are evident, and to be expected given competition for uses and the imposition of new regimes and the changes they bring about. The less powerful are often marginalised coastal dwellers, and traditional industries which are not capitalised and driven by a growth ethic: new regimes may replace traditional rights to the commons (e.g. Said and MacMillan 2020) (including harbours and waterfronts: Nogué-Algueró 2020; Bogadóttir 2020), and thus affect the exploitation patterns of resources and their whole spatial context. Dispossession of territorial or resource rights gives impetus to the formation of international alliances of resistance (small-scale fishers versus industrial fishing. Ertör-Akyazi 2020), challenges to dominant imaginaries (and calls to decolonise them. Childs 2020), and to alternative strategies (for resource redistribution or "re-grabbing", and "communitisation" instead of privatisation; Said and MacMillan 2020) which strengthen capacities and legitimise (and protect) other (non-capitalist) forms of governance. Fundamental conflicts exist with indigenous spiritual imaginaries, or cosmologies in which life, in all its forms, is rationalised by a logic that is incommensurable with new economic frontier imaginaries. These imaginaries challenge the ontological singularity of the BE (Childs 2020) and its characterisation of the ocean as divisible and enclosable space.

e) Openness (Fig. 5)

Openness foregrounds potentials and their realisation, and the creation of new economic frontiers for the BE. However, potentials also engender struggles over rights of access and the creation of new sites and spaces for political contestation.

BE is a spatial intervention that rearranges people and resources to avoid waste and achieve their economic use (Choi 2017), for example by codification of the maritime domain to create investment potential. In such ways, **new economic frontiers of opportunity** are created. Such codification is accompanied by growth discourses, for example of untapped wilderness, or BE as underdeveloped frontier spaces (e.g. Childs and Hicks 2019) through which infinite possibilities of "better" uses are imagined, institutionalised, and invested. BE is necessarily a governmental project through spatial interventions, opening up new "governable spaces" and rationalising particular ways of governing (Choi 2017).

But all this potential comes with **risks**. Livelihoods of coastal dwellers are often overlooked (e.g. Satizábal et al. 2020), closing or constraining potentials, and technocratic planning mechanisms often marginalise those without the capacities to engage (e.g. Aschenbrenner and Winder 2019). Growth can lead to "ilth" (a term coined as the

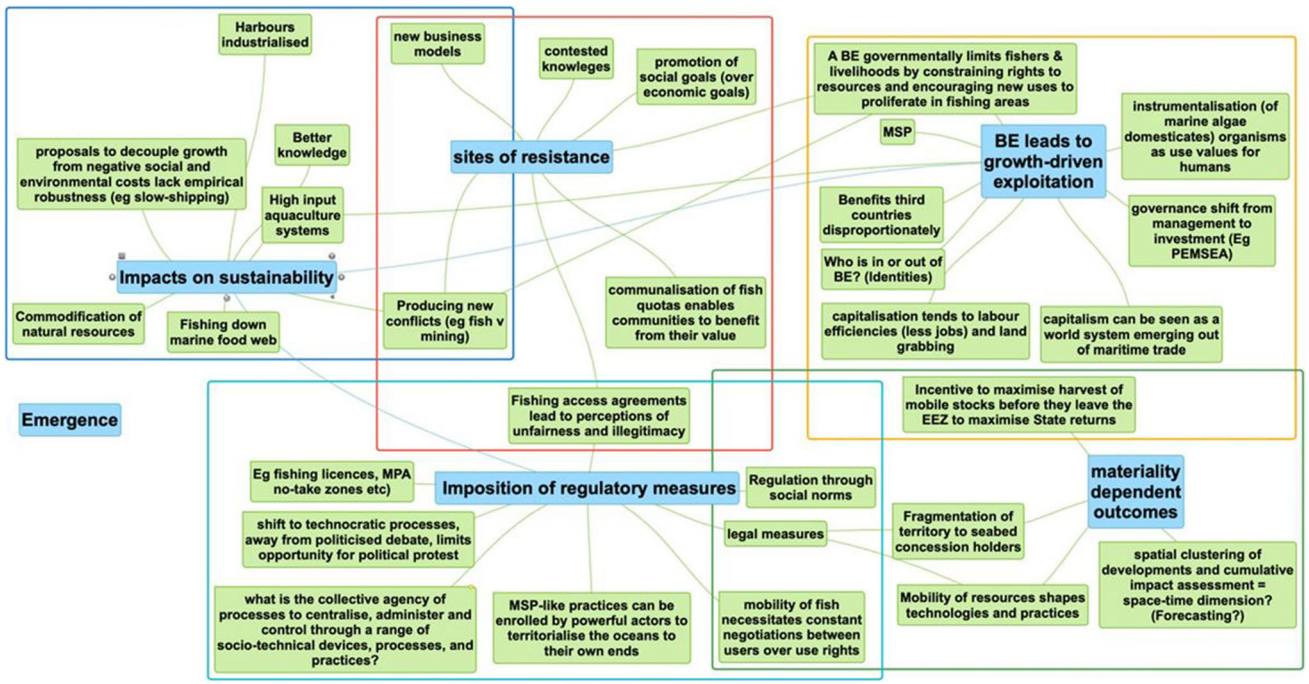

Fig. 6 Mind map depicting thematic structure of "Emergence" node following textual analysis. This provided the basis for the narrative description of results (see the Appendix Figs. 7, 8, 9, 10, 11 and 12 for the full version of mind maps)

counterpoint to wealth—Nogué-Algueró, 2020), reducing employment (resulting from technological advance), grabbing land for infrastructure, and pollution (e.g. from shipping) (Nogué-Algueró 2020). Struggles over rights of access to resources are the result of unequal power relations, such as access to capital providing access to technologies of extraction. Other new technologies such as GIS create new sites of struggle. Third country concessions (e.g. fishing access agreements, mining rights) are often perceived as unfair and leading to appropriation of wealth offshore (Andriamahefazafy et al 2020). State-driven priorities of rent-seeking (e.g. tax revenues) are not always seen as serving the interests of the public (Carver 2019), being at odds with livelihood-driven socio-cultural imaginaries and discourses of historical, colonial, over-exploitation. Resulting environmental justice struggles stress fundamental human rights (access to resources), and "conviviality" (rights of non-humans to exist/co-exist) (Childs 2020).

These tensions open diverse **new spaces of political contestation**: challenging the principles of development (e.g. "slow violence"; alternative cosmologies. Childs 2020) and "making the space–time configurations of new politics and possibilities" (Winder and Le Heron 2017:21); reclaiming coastal and ocean spaces for food security (e.g. Ertör-Akyazi 2020) and cultural heritage (e.g. Said and MacMillan 2020); making bio-economic relations differently (Kaşdoğan 2020); imagining sustainability "otherwise", challenging growth-centred norms; breaking out of the bounds of economism and rethinking more-than-human relations beyond utilitarian logic (Kaşdoğan 2020); recognising that sites where neoliberalization of (marine) natures exist are also sites of intervention and divergence (Karnad and St Martin 2020); de-growth transition opening opportunities for the rehabilitative appropriation of previously destructive technologies (Nogué-Algueró 2020); re-grabbing resources as commons (e.g. waterfronts, Nogué-Algueró 2020; fish quota shares, Said and MacMillan 2020); and identifying labour chokepoints as leverage in political struggle regarding environmental access (e.g. Childs 2020; Nogué-Algueró 2020).

f) Emergence (Fig. 6)

Emergence encompasses those *things* and *effects* arising from the implementation of regimes of practices, from efforts to realise potentialities, or from struggles over what political choices should be made over them.

The reviewed articles demonstrate that BE development leads to **growth-driven exploitation**, with unequal

rewards. A BE governmentality limits livelihoods of traditional resource users by constraining rights to resources and encouraging new uses to proliferate in the same areas (small-scale fisheries versus tourism activities such as diving. Said and MacMillan 2020). Capitalisation of industries tends in practice towards labour efficiencies rather than additional jobs, and land grabs for infrastructure. For example, port systems become part of a globalised logistics system assemblage, increasingly de-linked from local economies (to which benefit formerly accrued) creating new forms of enclosure and marginalisation (e.g. Nogué-Algueró 2020). In this way, local infrastructures and territories can become enrolled in geopolitical projects, such as China's belt and road initiative, corporate supply chains, or multinational logistics corporations.

Outcomes are **materially and spatially dependent**, and often contested through emerging sites of struggle. For example, mobility of fish resources shapes the technologies and practices deployed in fisheries, such as the use of FADs (fish attracting devices) in tuna fisheries (Andriamahefazafy et al. 2020); territorial limits (e.g. EEZs) can incentivise a race to harvest migratory fish stocks before they leave territories to maximise State returns (Andriamahefazafy et al. 2020); spatial clustering of developments leads to demarcation and ranking of areas to be managed differently (e.g. Kyvelou and Ierapetritis 2019); needs for shore-based or seabed infrastructure, such as ports and processing facilities, or pipelines are materially driven and have material and spatial consequences (e.g. dispossession of waterfront commons for private economic activity. Nogué-Algueró 2020).

Imposition of regulatory measures occurs as part of a reconfiguring of governance, including moves from management planning to investment planning (Satizabal et al. 2020), anticipating use of business investment projects to address management failings, governance becoming a PPP (public–private partnership). A shift to technocratic processes such as MSP, away from politicised debate, limits opportunity for political protest. Technocratic measures can be enrolled by powerful actors to territorialise the oceans to their own ends. They reformat how objects are understood and understood relative to each other, they make objects visible/invisible, leading to marine economies and communities being reformatted by practices, protocols, data initiatives, and technical devices (Karnad and St Martin 2020).

Regulatory practices generate perceptions of unfairness and illegitimacy as they inevitably favour one actor over another, and so lead to **sites of resistance**. This especially applies to Fishing Access Agreements, having implications for employment and labour mobility, food security, supply/value chains, and ultimately to opposition to industrial fisheries (Andriamahefazafy 2020), but also mining concessions which may lead to one sector being favoured over another (e.g. mining v fishing, Namibia. Carver 2019). Legal mechanisms can lead to fragmentation of territory, between different regimes or through multiple seabed concessions for example (Carver 2019). By contrast, traditional systems of regulation, relying on social norms, may be more attuned to their natural environment, such as the mobility of fish resources and the consequent need for constant (re)negotiation between users over informal territorial rights (e.g. Karnad and St Martin; Ertör-Akyazi 2020).

New practices, enabled by new regulatory regimes, such as high input aquaculture systems, can have profound **impacts on sustainability**, externalising ecological feedbacks and appropriating ocean space (Bogadóttir 2020). Traditional infrastructures such as harbours can become appropriated by industrial uses, through privatisation and/or construction of specialist infrastructure, both restricting access and causing nuisance and pollution to traditional users (e.g. Nogué-Algueró 2020).

So new conflicts and new sites of resistance emerge. Conflicts between the old and the new, such as fishing versus mining, spatial conflicts (in 3 dimensions) of difficult-to-separate activities, a favouring of some sectors over others, and political struggles over legitimacy and appropriation of rights.

Discussion

In this analysis, I consider what role the material and spatial elements of the oceans play in BE governance through a spatialised analysis of governmentality, aiming to understand how BE governmentality is manifested in materially and ecologically different places. Given that management practices are "located" (Rutherford 2007), I pose the question "does 'place' matter?" That is, does the heterogeneous materiality and spatiality of oceans, commonly experienced as difference between places (or locales), either demand different practices of government or, conversely, mediate the degree to which governance relations produce and shape the spaces of the Blue Economy?

The conceptual frameworks, together, allow us to peer deeply into the Blue Economy, seeing it as a rationality for the governance of the oceans and as a consequent constellation of social and material relations that create different places. We can see how the BE is a space of multiple potentials, and of political struggle over how these are prioritised

and packaged as visions and goals, especially regarding the relative priorities between environment and economy. We can examine what practices are deployed (strategies, policies, technologies, devices, social norms) in the pursuit of those goals, and what emerges as a result: how place and space is shaped by them, what conducts are encouraged and reinforced, what identities come into being or are destroyed, and what inequalities and struggles may or may not result. We see, in effect, how the BE as enacted shapes the present and the future of the world's oceans and the societies connected with them.

The image of the BE brought to the fore by this analysis of empirical cases is one of contested regimes of control and multiple (competing) imaginaries, or utopias. At the same time, it is a space of potential (Openness). How the conflicts between imaginaries and regimes of control and practice are resolved opens or constrains potential. Open potential is only available by embracing multiplicity, i.e. acknowledging competing claims and seeking new utopias from which new, widely acceptable regimes of control and practice emerge. However, the eternal tension in the BE paradigm is that growth drives expanding infrastructure and resource extraction, and is at odds with delivering systemic environmental conservation. We see BE policy privileging economy over environment—the oceans are first created as development space before consideration of environmental conservation priorities. MSP processes presuppose development and are growth-led, MSP being regarded as an economic development tool—creating zones of use, enclosure, and access rights to support market development. The resource-dependent, growth-based development imaginary promises social benefits (e.g. employment) but instead accelerates social metabolism (Bogadóttir 2020; Nogué-Algueró 2020), leading to negative social and environmental externalities. BE discourses and practices create new management entities, materially affecting financial flows, property rights, and other boundary demarcations. Failed utopias, of poor access to resources, reduced income and employment, disenfranchisement, and community fractures, result from the appropriation of material resources and space by powerful interests.

Looking at the spatial dimensions of governance, we see BE as a socio-material network of diverse relations and development potentials strongly influenced by the material properties of natural resources. Massey (2005) called for the recognition, in development contexts, of a multiplicity of potentialities of space. Using place-space–time theory, we can delve deeper into these spatial relations than Massey was able, by recognising Openness as potential and Emergence as outcomes. The potential of the BE is constrained by post-political processes in which fundamental assumptions about ocean governance and development priorities remain unquestioned, and in which alternative imaginaries and discourses are excluded. In this analysis, potentialities fall into three categories: new economic frontiers, managing potentials of limited resources, and repressed potential revealed by political struggle. Through discourses of Blue Growth, the BE favours high growth sectors, such as energy, minerals, bio-economy, requiring new material, spatial and institutional infrastructures. Potential for growth and investment is created through discourses that "[re-story] economy as economic practices that always are embedded in ecological conditions" (Winder and Le Heron 2017:17) opening up new spaces for capital (e.g. "Blue Carbon", "Blue Energy"), or which foreground unexploited wealth (Nogué-Algueró, 2020) and promote valuation of environments and natural capital in monetary terms (e.g. Choi 2017; Satizábal et al. 2020). Managing the potentialities of multiple resources occupying one ocean space demands trade-offs, these underpinned by decision-making principles (such as ecosystem-based management, Winder and Le Heron 2017) or mechanisms such as MSP. However, questions regarding legitimacy and whose interests are being served (Aschenbrenner et al. 2020) by these devices, hint at their failings and prompt the questioning of the adequacy of the practical policy tools at our disposal to manage the tensions between environment and economy that lie at the core of the BE paradigm (Winder and Le Heron 2017).

The importance of "place"

I posed the question "Does place matter?" and do different places demand different practices of government? Campbell (2018:23) succinctly defines place as "physical spaces that people naturalize through patterns, behaviour and communications", reflecting Lefebvre's analysis of the complexities of place as socially produced, elucidated through his trialectic of spatial perspectives (perceived space, conceived space, and spaces of representation) in which all three modes are in an "ongoing state of mutual reproduction and transformation" (see Whaley 2018:23–24). Thus, place, being relational and co-produced, is multiple (Massey 2005) and individual places overlap in their locatedness and orientation (Malpas 2012). When considering BE and the exploitation of marine resources, whether static or mobile, we need to understand "place", therefore, from multiple perspectives in order to first define *places of concern* before we can allocate, use, and conserve resources equitably. That is, we need to understand the interplay between the materiality of space

(and its consequent spatial relations) and uses, users, technologies, practices, regimes of governance, etc., and recognise that the resulting "place", being co-produced, is unique to each stakeholder and each BE sector. This calls for an inclusive, political process to enable worldviews to be shared and understood and choices to be articulated and agreed positions negotiated. Perhaps the most telling example in this study is that of indigenous islander's views on seabed mining in Papua New Guinea (Childs 2020), who regard "the sea and its life is part of one thing. It is part of us" representing a relational view of the earth which is inclusive of the sea and in which seabed mineral extraction is regarded as impacting all life. Other examples are also evident—Faroe Islands (Bogadóttir 2020); Barcelona (Nogué-Algueró 2020); Malta (Said and MacMillan 2020)—in which conflicts regarding the same *location* are in fact about different *places*. Because place reflects a complex amalgam of materiality, cultural perspectives, and lived experience (i.e. Lefebvre's trialectic), it is *place* that is important rather than physical *location* in the context of spatial planning and other forms of governance over physically located material resources. A governmentality that does not recognise the material and spatial heterogeneity of the world, represented as place, will exist in conflict with opposing natural and social forces. We see this in the transgression of territorial boundaries by migratory tuna, whose mobility resists State-centred controls (Andriamahefazafy and Kull 2019). In response, new institutions must be formed (such as the Indian Ocean Tuna Commission, a multi-State partnership governed by international Agreement) to develop more collaborative rationalities of government for tuna resources. We see it also in the effect of policies to intensify aquaculture and the inability of coastal ecosystems in which the resultant fish farms are located to assimilate the material inputs to these farming systems (high protein fish feeds) leading to "ecological distribution conflicts" (Bogadóttir 2020) which challenge the prevailing growth-centred governmentality. Thus, different places do demand differing forms of governance, enacted through different practices and rationalities (collaborative or ecologically centred in these two examples).

I turn next to the question of the degree to which governance relations produce and shape the spaces of the Blue Economy. The stated intent of the BE paradigm is to promote sustainable development in the oceans to meet the development needs of society whilst also protecting the natural heritage of the oceans for future generations (UNDESA 2014). However, it is apparent from the cases analysed here that the BE paradigm has been far more successful *in practice* in reformatting the ocean environment as developable space, which is having and will have far-reaching consequences for ocean ecosystems and those people dependent on them, especially traditional coastal dwellers. In the Faroes, coastal commons are being transformed: "Whereas harbors were previously integral parts of local communities, the past century of blue growth has transformed them into industrial areas. Harbors have been enclosed from the public, and most recently, harbor areas are being privatized." (Bogadottir 2020:112). In the Philippines, "new partnerships between public and private sector actors forge networks, boundaries, and management practices……producing abstract knowledge and practices (financing ideas, technologies, territories) that reorder and rebrand oceans as territories with economic potential." (Satizábal et al. 2020:18). In Malta, economic restructuring of fishing fleets in favour of industrial-scale fishing introduced new fishing practices and technologies, altering seabed habitats (Said and MacMillan 2020) to produce new ocean spaces.

In summary, we can identify a widespread BE governmentality driven by an ideology of growth, an "*econom*entality",[2] framing oceans as a resource frontier for economic growth and international investment. Anthropogenic imaginaries render living and non-living resources in terms of economic value through techno-spatial growth imaginaries, altering perceptions of what matters (e.g. economic value over intrinsic or cultural values) and changing power relations. This governmentality privileges deployment of new technologies, market incentives, and technocratic regulation with the aim of boosting *global* commoditised economic growth. This in turn fosters policies of expanding infrastructure and resource extraction, characterised by institutions designed to create investable subjects, such as seabed mining concessions or fish quotas. Marine space is governed through processes of discursive and material territorialisation using new accounting practices and geolocation technologies, for example, to enclose space and create investable units of resource. Existing and new sectors and initiatives are enrolled into a growth-fuelled imaginary, reducing relations between society and oceans to an economic calculus, overturning or appropriating historic regimes, and creating new sites of conflict through deployment of practices that are out of

[2] Mitchel (2014) defined an econom entality as a form of governmentality that represented "new forms of.

political reason and calculative practice emerging in the mid-twentieth century [which] formed the economy as their object and introduced the future into government.".

tune with the materiality of oceans or the complexity of coastal livelihoods. The practical manifestations of these rationalities is that ocean resources are physically removed (mined, harvested, extracted) from ocean spaces, not only having the immediate effect of removing those elements from the ocean—there are longer term consequences as well, arising from modified ecosystem dynamics and their effects on the material and spatial nature of the oceans themselves.

Conclusion

In this analysis of 17 empirical cases of the BE as practiced, we can see a range of common trends amounting to a coherent discourse. Most important amongst them, I would argue, concern (1) the relationship between the BE and sustainable development, (2) the marketisation of natural resources and the corporatisation of the means of their exploitation, and (3) poor levels of engagement with the multiple potentialities of the BE, which I expand upon in the following three paragraphs.

Using the analytical frameworks of governmentality and place-space-times together reveals a complex spatialised governmentality emerging through the articulation and pursuit of the Blue Economy as a policy goal. It is revealed as something other than a manifestation of sustainable development—an *econom*entality, privileging economic growth before environmental protection, the latter being predicated on ocean space first being rendered as developable space through territorialisation and enclosure. New knowledges generated through State-sponsored survey describe and format ocean space anew, as a container of enumerated resources, untapped but representing future sovereign wealth to be exploited for the good of all. New technologies enable ocean resources to be geolocated in bounded units, to demarcate new territories, to enclose space through the introduction of new regimes of exclusion/inclusion, leading to its allocation amongst competing uses and users and making it visible to capital.

Corporatisation of once-traditionally managed resources and capacities, through the introduction of such devices as ITQs in fisheries or seabed mining concessions, generates inequality and conflict within coastal communities and changes the dynamics of employment and labour, undermining livelihoods and cultures. New industries, such as seabed mining or aquaculture, are uncomfortably superimposed on traditional resource utilisation practices and the spaces within which they take place. Together, the transformation of the old and the introduction of the new cause conflict and dispossession through the collision of incommensurable imaginaries—economic growth through commodification versus community wellbeing or one-world, more-than-human spiritualities. MSP is as yet an ineffective tool for balancing the conflicting demands of managing growth whilst protecting the environment. It is open to co-option by powerful interests having access to capacities and knowledges that are denied to the marginalised coastal dwellers who have most to lose—their culture, their territory, and their material means of living.

This analysis reveals multiple potentialities of the BE and identifies the need to incorporate more open dialogue into its practice. Whilst it emerged in part as a political tool for island and coastal states to gain more leverage in international policy arenas (Silver et al. 2015), in its practice, it is developing as a post-political hegemon, the objective of economic growth being presumed as a fundamental and incontrovertible principle. Whilst proponents would argue that this is balanced by measures to protect nature, in emerging practice, this takes second place to economy and at best the BE is a two-speed governmental project which risks the globalised economy running roughshod over environmental and social priorities as the forces of commodification, marketisation, privatisation, and capital win over resources and influence.

The use of Dean's governmentality analytic has allowed the elucidation of a complex and nuanced understanding of the Blue Economy, complementing earlier discourse and content analyses (Silver et al. 2015; Voyer et al. 2018). Not only do we understand the rationales that have been developed to justify the Blue Economy, but we also see how it is implemented (through regimes of practices). The spatial analytic reveals additional insights regarding opportunity, risk, and outcomes.

Finally, I have highlighted the role of the ocean's material and spatial relations to the BE governmentality, and drawn attention to the importance of place. Place is co-produced, by relations of governance as well as other social and material relations, and is multiple and overlapping, creating a complex governmental challenge. On the one hand, the material and spatial specificities of places have often profound consequences for how governance is exercised, creating sites and spaces of resistance. On the other hand, governmentality, through the discursive rationalities, the technologies, practices, and devices deployed in its name, undoubtedly is an important force in the co-production of space. Given this relational complexity, it is not clear that we are yet equipped with a sufficiently sophisticated understanding of place to successfully rise to the challenge that BE governance poses.

Appendix

Full mind maps, corresponding to respective figures in the main document.

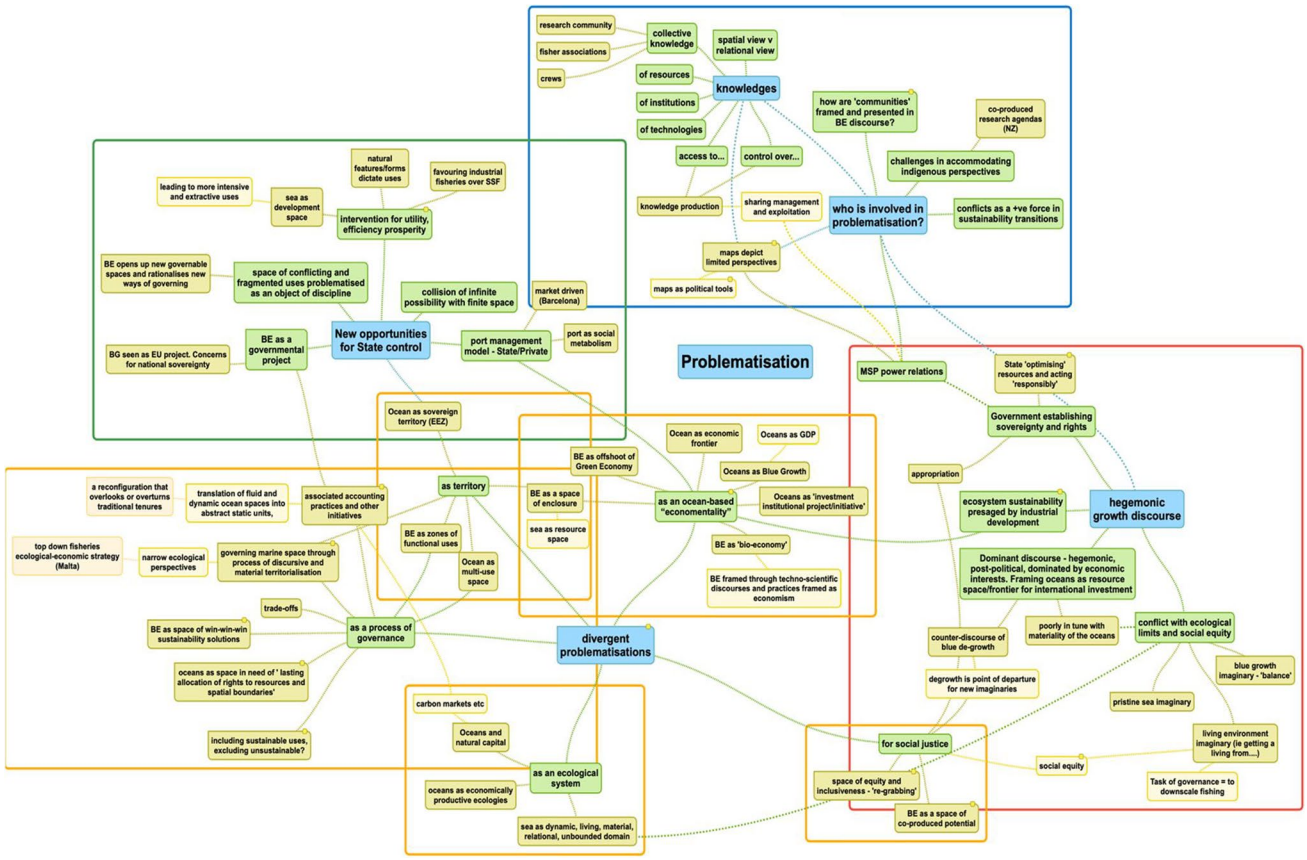

Fig. 7 Problematisation

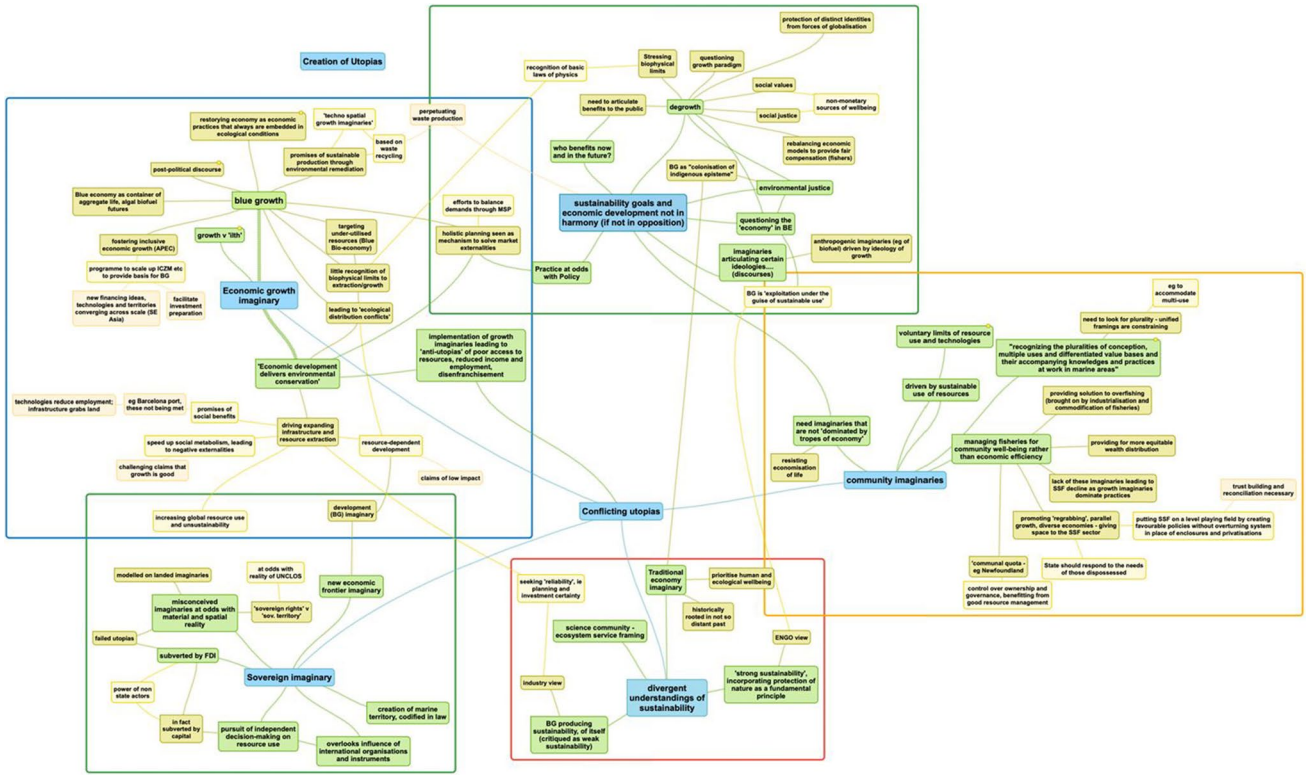

Fig. 8 Utopias

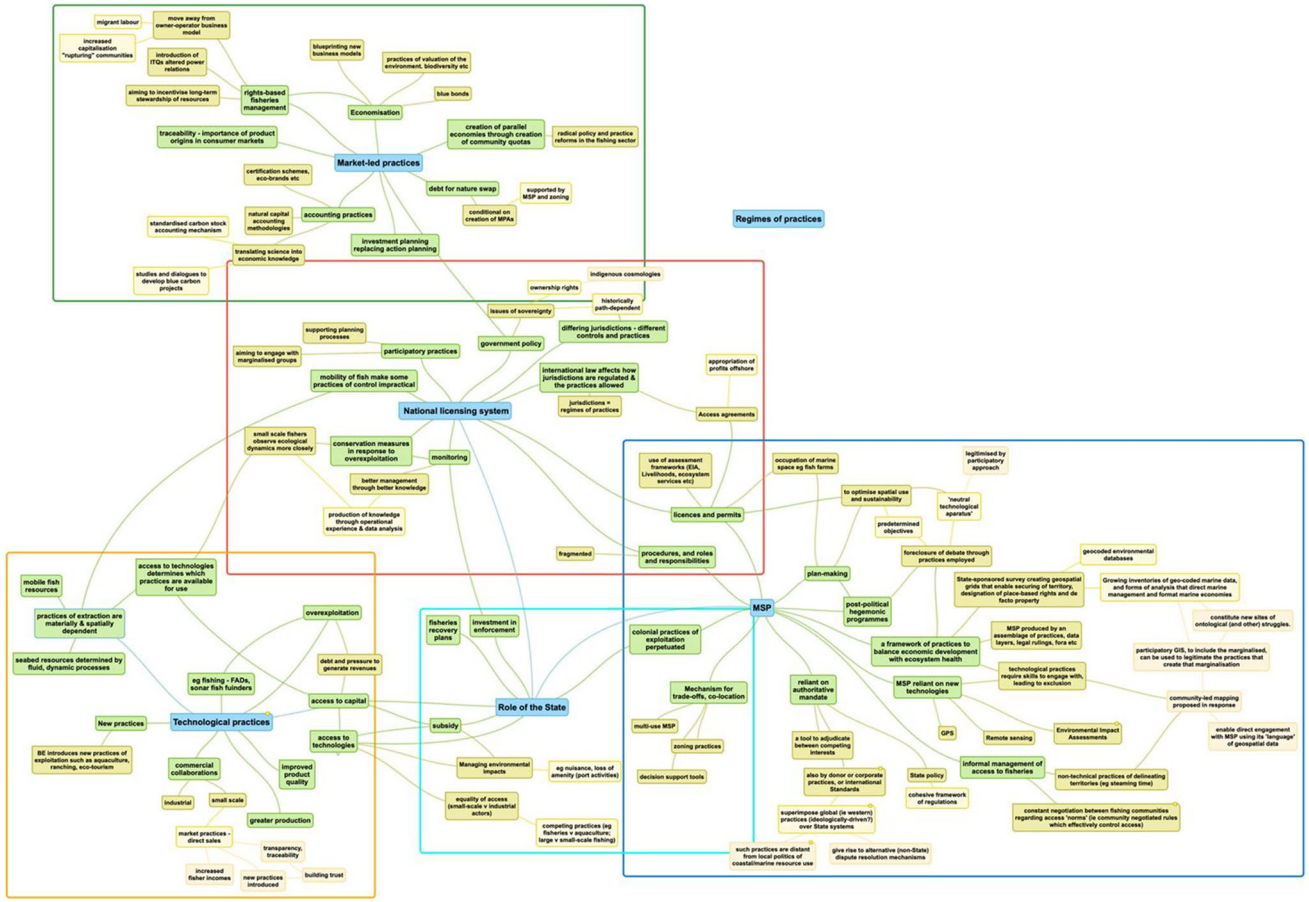

Fig. 9 Regimes of practices

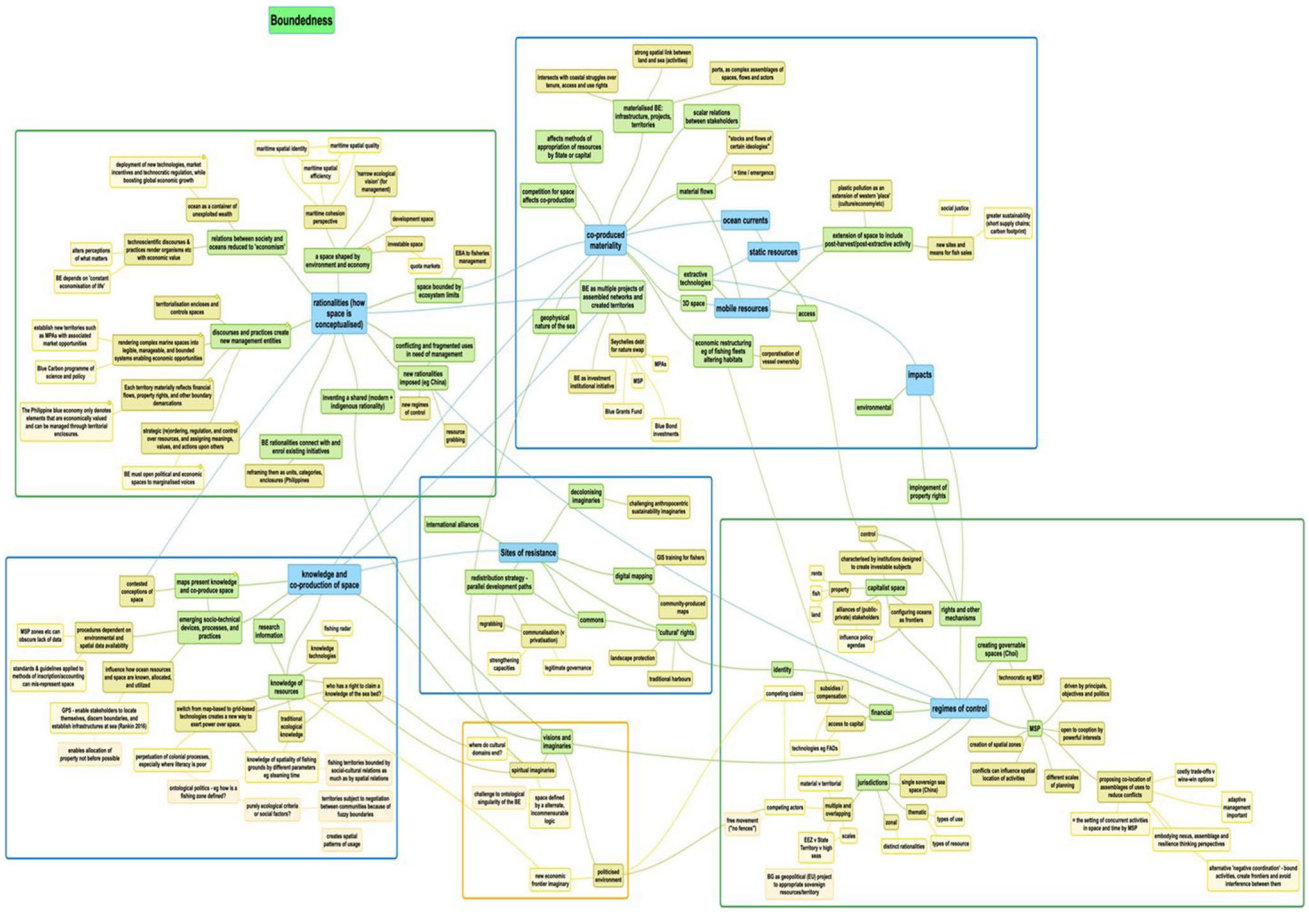

Fig. 10 Boundedness

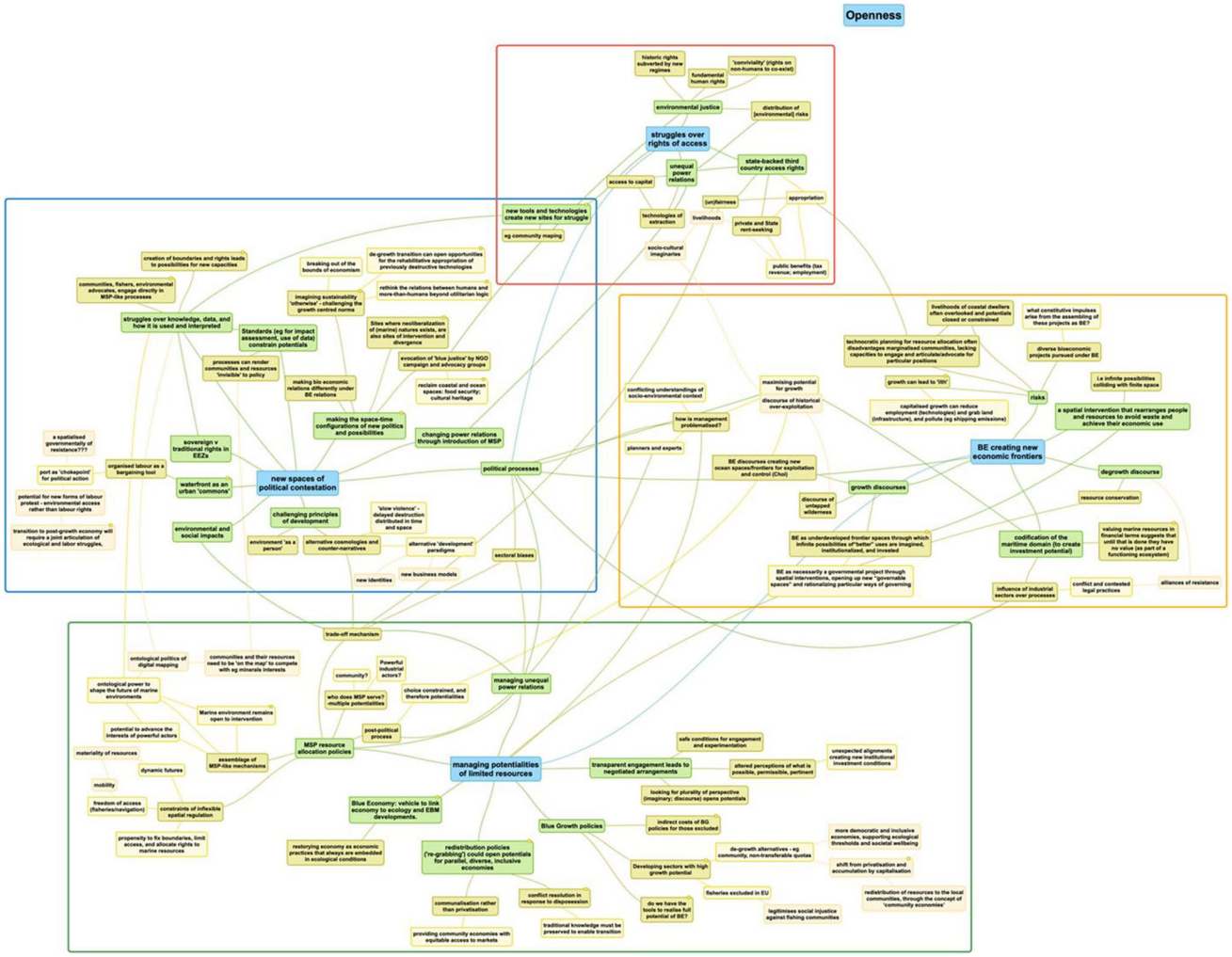

Fig. 11 Openness

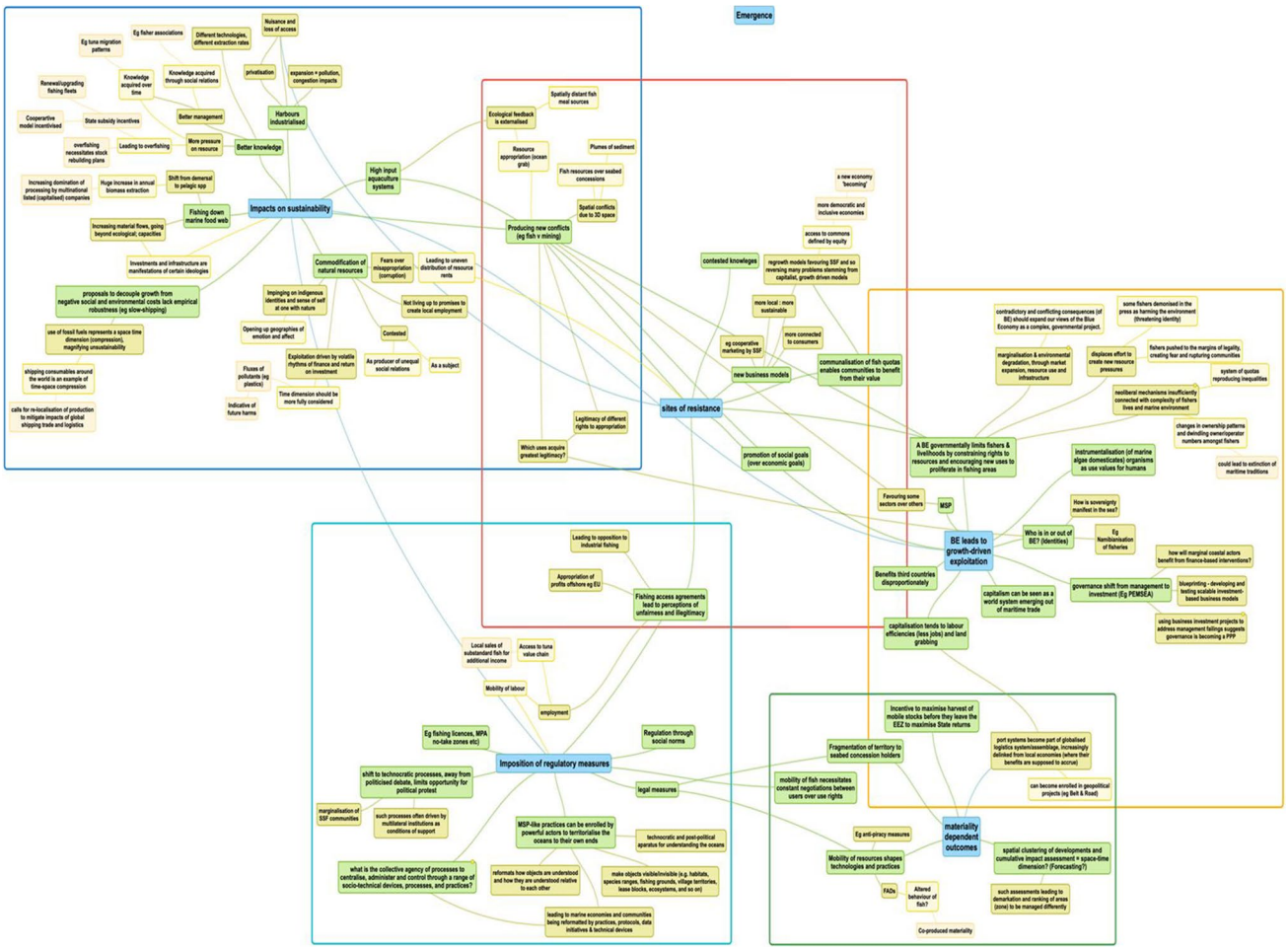

Fig. 12 Emergence

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Code availability Not applicable.

Declarations

Conflict of interest The author declares no competing interests.

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