Executive summary

The OECD definition of the ocean economy accounts for the economic activities of ocean-based industries, as well as the assets, goods, and services provided by marine ecosystems. This report considers three additional factors. First, beyond ocean-based industries and marine ecosystems, the report refers to freshwater-based industries and ecosystems, moving from "ocean" to "blue" economy at large. Second, because freshwater and seawater are intrinsically linked through the global water cycle, the report asserts that water security should be considered as a critical element for resilient blue economy sectors. Third, this report emphasises the importance of a territorial approach to the blue or ocean economy, which implies tailoring policies to local challenges including through effective multi-level governance.

Cities and regions play a pivotal role in cross-sectoral policies and investments that affect blue economy sectors and ecosystems. Subnational governments typically have responsibilities in urban and regional planning, water and sanitation, waste management and climate resilience, which influence the level of water security. For instance, land use practices can have impacts on freshwater, coastal and marine ecosystems (e.g. wetlands and mangroves) and the ecosystem services they provide (e.g. flood mitigation and water purification). Similarly, subnational governments have overarching competencies in local and regional economic development, tourism and innovation, which can influence blue economy sectors in terms of productivity and competitiveness.

The blue economy can be a driver of sustainable territorial development

Drawing on 81 responses from cities, regions, basin organisations and small island developing states (SIDS) across OECD and non-OECD countries, the OECD Global Survey on Localising the Blue Economy (hereafter the OECD survey) shows that the most prevalent sectors of the blue economy in cities and regions are seafood (90%), water-related tourism (86%) and water passenger transport (70%). The top drivers for the blue economy at the subnational level are job creation (90%) and economic growth (88%). For example, the blue economy accounts for 4.3% of gross domestic product (GDP) in Barcelona, Spain, and 1.4% of the city's workforce. In the state of California, United States, one in nine jobs connect to port-related activity. The blue economy in the region of Flanders, Belgium, grew from 4.5% of GDP in 2018 to 5.2% in 2021, and port activities in the region have a multiplier effect of 2, with 103 000 direct jobs and 230 000 related jobs.

Following job creation and economic growth considerations, 81% of respondents reported that conserving biodiversity and ecosystems is a significant driver for the blue economy. Indeed, freshwater, coastal and marine ecosystems (e.g. natural river systems, lakes, wetlands, mangroves and coral reefs) yield a number of non-market benefits, include provisioning services (e.g. seafood), regulating services (e.g. where coral reefs and mangroves serve as barriers against floods or carbon sinks), cultural services (such as recreational activities in freshwater ecosystems) and supporting services (with mangroves supporting fish nurseries, for example). In the European Union, on average, a 10-kilometre coastal zone is estimated to generate EUR 400 billion worth of ecosystem services annually.

While the blue economy offers major benefits, it can also raise environmental concerns. More than half of respondents (57%) identify waste generation as a significant environmental impact of blue economy sectors and 51% perceive the same for pollution from plastics and water pollution. For instance, resource-intensive activities such as tourism and coastal development can generate substantial amounts of waste, and ghost fishing gear contributes to around 10% of oceanic plastic pollution. In addition, climate-related factors are identified as the most prominent threat to the blue economy, with 86% of respondents deeming them significant. On average, both coastal and inland survey respondents view sea level rise (54%), floods (41%) and coastal erosion (35%) as the main climate-related threats to the blue economy, followed by droughts (28%), although differentiated trends emerge from disaggregated analyses. Sea level rise and floods can disrupt marine and freshwater ecosystems while damaging waterfront infrastructure and assets such as ports, shipyards and accommodation. Evidence shows that coastal erosion threatens to reduce land-based ecosystem services (i.e. provisioning, regulating, habitat and cultural services) in coastal areas by up to 5% in Europe by 2100, with damages to sectors such as tourism and port activities. In addition to the humanitarian crises that droughts and water scarcity can provoke, including on food security, they also have economic costs, including through impairing river navigation, port activities, and renewable energy generation and, in turn, energy security. Estimates and projections suggest that the most extreme water scarcity events can cost cities up to 12 percentage points in GDP growth and, globally, droughts could potentially cost up to 6% of GDP annually by 2050.

National and subnational governments use a range of tools to foster sustainable blue economies but governance gaps remain

Over the past few years, the international community has increasingly recognised the need for a sustainable blue economy that protects and conserves coastal and marine ecosystems. This shift is visible in initiatives ranging from the United Nations Sustainable Development Goal 14 on "Life below water", which seeks to conserve and sustainably use oceans, seas and marine resources, to the Treaty on the High Seas (2023), which provides for the common governance of marine areas beyond national jurisdiction. Because subnational governments are competent in policy areas that influence the resilience and sustainability of the blue economy, such momentum underscores the need for concerted action across all levels of government.

However, subnational blue economy strategies and policies are still in their infancy compared to the national level. Only 7 out of 81 respondents to the OECD survey have adopted a formal strategy or policy on the blue economy, aiming to promote blue economic growth, protect blue ecosystems and foster blue innovation and skills. On the other hand, cities and regions leverage a range of tools such as capacity-building and awareness-raising initiatives, planning tools, innovation networks and regulatory and financing instruments. For example, over one-third of survey respondents directly support capacity-building initiatives on the blue economy for civil servants (36%), the private sector (35%), and civil society (32%).

The OECD survey highlights several factors hindering the development of a sustainable blue economy at the subnational level beyond technological challenges. A significant barrier is the lack of financial resources (83%). Indeed, blue economy related initiatives are mostly funded through national and subnational governmental sources (e.g. grants) (54%), while the uptake of more novel instruments (e.g. blue carbon credits) remains limited (3%). Insufficient data collection and information sharing, as well an unclear allocation of roles and responsibilities for blue economy policy making across levels of government (both 69%), are also important challenges. For instance, in cases where national and local blue economy strategies co-exist, they rarely align, including on basic aspects such as definitions. Furthermore, there can be discrepancies in the sectors covered in national and subnational strategies for the blue economy, indicating different priorities across levels of government and departments. Such gaps emphasise the need for a territorial approach to the blue economy, which responds to local specificities, concerns and priorities.

Fostering a resilient, inclusive, sustainable and circular (RISC-proof) blue economy in cities and regions calls for effective multi-level governance conditions

In response to the impacts of the blue economy on freshwater, coastal and marine ecosystems and given the impact that climate change can have on blue economy sectors, jobs and local communities, cities and regions need to develop RISC-proof blue economies that are: **resilient** to economic and climate-related shocks; **inclusive** of local communities and stakeholders; **sustainable** environmentally by limiting environmental impacts while protecting ecosystems and biodiversity; and **circular** by preventing waste (including plastics), fostering material efficiency and transforming waste into resources.
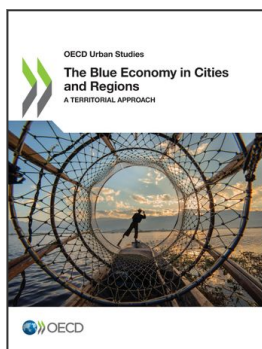
Achieving a RISC-proof blue economy requires ensuring a set of governance-related enabling conditions, which can be classified into three categories: policy making, policy coherence and policy implementation.

Policy making involves defining clear roles and responsibilities, institutional frameworks and leadership for blue economy policy, building and strengthening institutional capacities, and collecting and sharing adequate data, information and knowledge to feed into decision making for the blue economy. Currently, national blue economy strategies rarely integrate place-based considerations, with less than half of the national blue economy strategies analysed (9 out of 21) allocating concrete roles and responsibilities to subnational authorities. In a rare example of a territorial approach, France relies on county (*département*) strategies for managing the public maritime domain and on regional operators such as marine national parks to co-ordinate the central government's maritime policy with local authorities and related institutions.

Policy coherence means ensuring that mandates, policies and objectives are aligned across government institutions with a stake in the blue economy, acknowledging the interdependencies between blue economy sectors and ecosystems as well as related policy issues (e.g. climate change, water security and inequalities) and strengthening links between cities and regions and their basins. Some strategies address water-related risks, ranging from water shortages in Tunisia to sea level rise and flooding in the United States and plastic pollution in Indonesia. Some strategies set out measures to address these risks, such as Japan's steps to protect coastal areas from sea level rise and storm surges, and France's commitment to improving the quality of coastal waters by combatting land-based sources of marine pollution.

Policy implementation refers to the tools used to operationalise blue economy policies, including financing frameworks and economic incentives, regulatory frameworks and command-and-control tools, and fostering synergies within an "ecosystem" of local blue economy actors from business, science and civil society. For example, through its annual BluAct competition, the city of Matosinhos, Portugal, provides financial and capacity-building support to ten selected innovative business projects in the blue economy. In the city of Lisbon, Portugal, the Sea Hub (*Hub do Mar*) connects businesses with universities, the local scientific community and researchers to help blue economy businesses grow, focus on research and innovation, prototype and test activities. In the city of New Orleans, Untied States, the Office of Workforce Development works with businesses and higher education institutions to ensure that education programmes (e.g. Naval Architecture and Marine Engineering programme at the University of New Orleans) are tailored to the needs of the local blue economy.

The report concludes with an Assessment Framework for a RISC-proof blue economy in cities and regions. The framework, divided into three parts, aims to: i) help local and regional governments self-evaluate the resilience, inclusiveness, sustainability and circularity of their blue economy; ii) gauge the level of implementation of the nine enabling governance conditions relating to policy making, coherence and implementation to achieve a RISC-proof blue economy; iii) provide a "whole of water" checklist for local and regional governments to embed water security into their blue economies. Through multi-stakeholder dialogues following a five-step process, the framework can facilitate a comprehensive diagnosis of the blue economy and support a consensus on the needed governance improvements over time.