



[Full report here](#)

2050

SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA



Illustrations: ©Fanny Didou



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000240.

Based on the work initiated by the European Environment Agency, 'Scenarios for a sustainable Europe in 2050' (SSE 2050), this work provides long-term visions for the Black Sea, its maritime and coastal capital (see next slide), and Blue Economy activities depending on it, both regionally and across the BRIDGE-BS project pilot sites.

Technocracy for the common good



Unity in adversity



The Great Decoupling

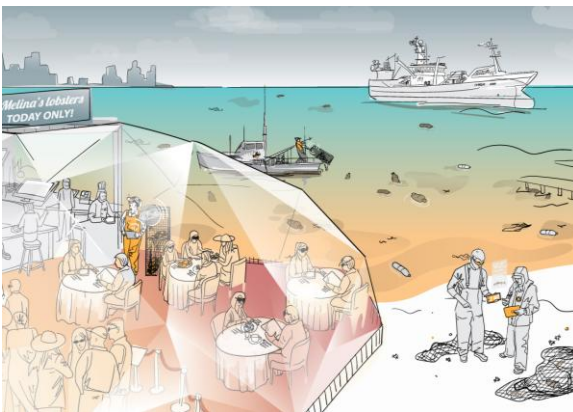


Ecotopia



2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA

Foresight and Prospective

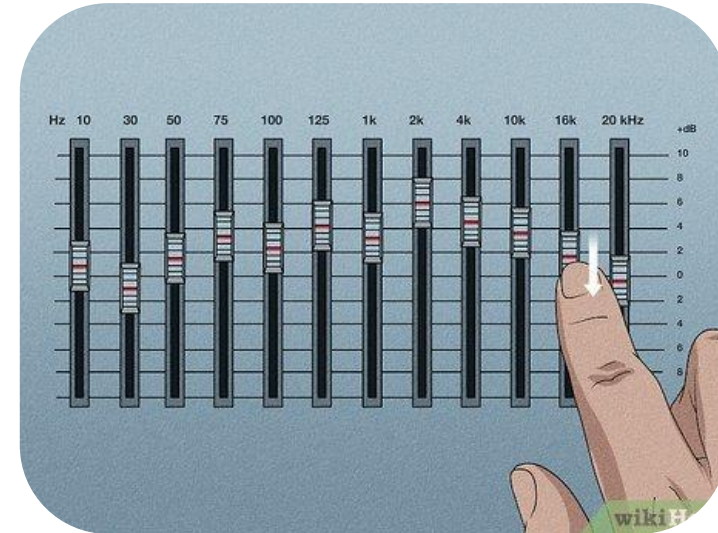
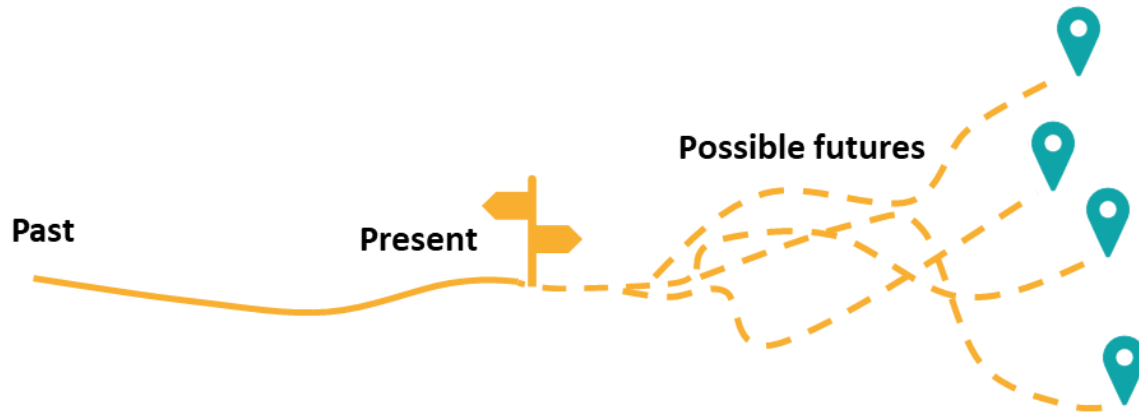


European Commission - [Fishers of the Future](#) (2025)

ADEME and Plan Bleu - [Tourism in 2050 along the French Mediterranean \(PACA Region\)](#)

2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA

Foresight



Climate
Technology
Well-being
Energy
...



Foster collective thinking
and strategic dialogue on
emerging trends



Engage stakeholders in
shaping transitions and
driving change



Support decision-making
under uncertainty through
future-oriented insights

OUR METHODOLOGICAL FOUNDATION



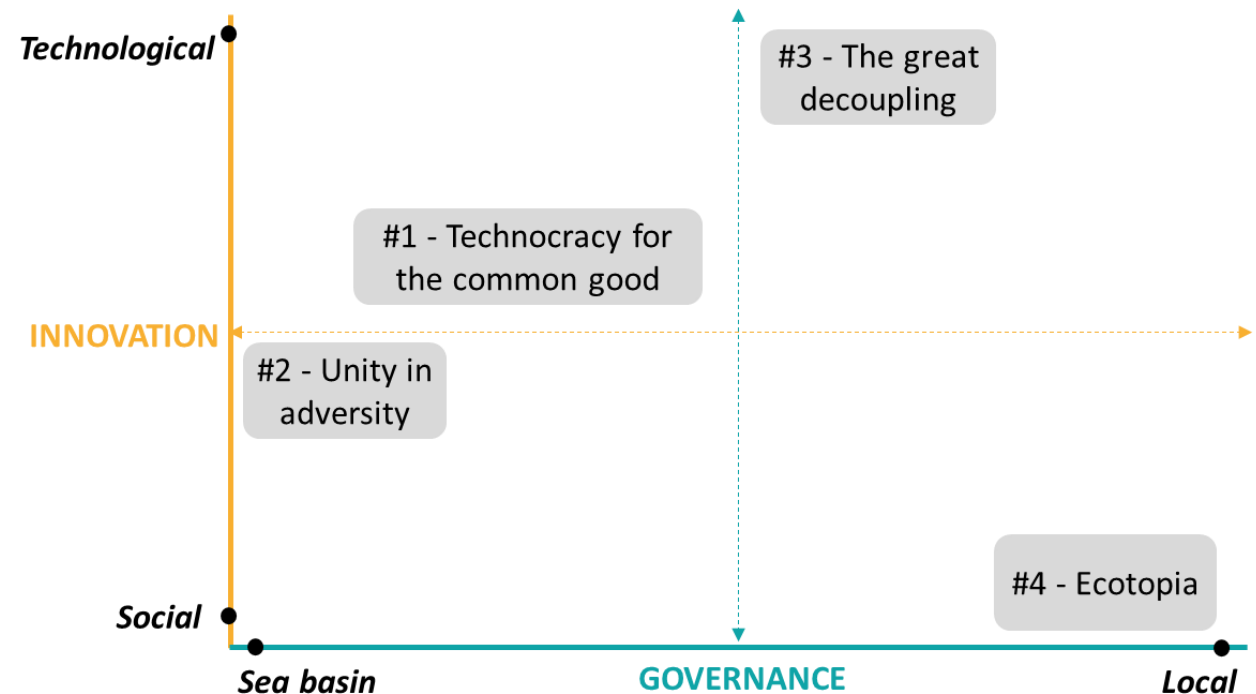
European
Environment
Agency

[The 'Scenarios for a sustainable Europe in 2050' project](#)



A set of 4 engaging, plausible and contrasting images of **what a sustainable Europe could look like in 2050.**

- ❖ Considering climate change as a key driver.
- ❖ Mostly terrestrial: agriculture, waste, mobility, etc.





Imaginaries for a sustainable Europe in 2050



Adaptation to Blue Economy sectors



Adaptation to the Black Sea context



Adaptation to the pilot sites specificities



Surveys (Pilot sites partners, touristic stakeholders, students)



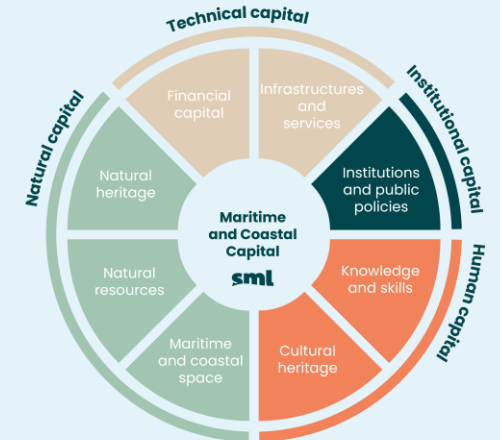
BRIDGE-BS



Diagnosis of the Black Sea Blue Economy sectors & Maritime and Coastal Capital



+ Analysis of the impact of the war on the Black Sea Blue Economy



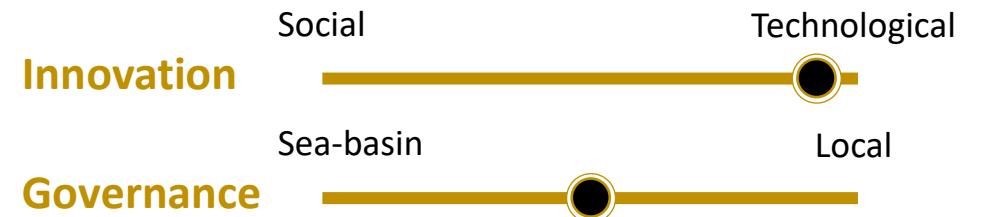
Imaginaries for a sustainable blue economy in the Black Sea in 2050

**2050
Sustainable
imaginaries for
the Blue
Economy in the
Black Sea**



2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA

IMAGINARY 1: TECHNOCRACY FOR THE COMMON GOOD



[Access the full report here](#)

What changes have occurred in the Black Sea by 2050?



Response to 2020s crises: COVID, war, climate change.

Shift to protectionism: Strong state-led policies.

Lower carbon emissions: Drastic reductions achieved.

Policy driven by data: Global digital surveillance supports governance.

Resources over biodiversity: Sustainable management of commercial species.



2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA



Example of results : Technocracy for the common good

2050 BLUE ECONOMY STATUS

*Regional intensity: status in 2050 compared to 2023

significant decline (--)

decline (-)

stable (~)

growth (+)

significant growth (++)

Shipping	Shipbuilding	O&G	Tourism	Cruise	Boating	Fisheries	Aquaculture	Biotechnologies	MREs
--	-	-	--	-	~	-	+	+	++

2050 MARITIME & COASTAL CAPITAL STATUS

*Status: MCC Status of 2050 compared to 2023

decreased (-)

stable (~)

increased (+)

Natural heritage	Natural resources	Space	Institutions & policies	Infrastructure & services	Financial capital	Knowledge & skills	Culture & heritage
~	+	+	+	+	~	~	~

Maritime transport

Regional intensity*: significant decline (--)

As a result of de-globalization and protectionism, **international trade (hydrocarbons, commodities, foodstuffs) has shrunk considerably, and shipping intensity has declined accordingly.** The remaining international shipping activities are **strictly limited to the essential needs of States** (food, materials, technologies) that have not managed to internalize their production. They are **operated by large state-affiliated companies**, no longer by international corporations. They are mainly **consigned to the Black Sea basin**, as a means of exchange with neighboring countries (ex. Ukrainian cereals), and only a few ships reach the Mediterranean and then the ocean. **By 2050, the fleet will have shrunk significantly, both in number and size**, and will be operating on systems combining wind propulsion and low-emission fuels (methane, hydrogen), with very low cruising speeds and strongly optimized and monitored routes.

*Regional intensity: status in 2050 compared to 2023

Shipbuilding & repair

Regional intensity: decline (-)

The significant decline of maritime transport and its associated fleet has led to a **drastic drop-in in shipbuilding activity.** However, by 2050, each Black Sea country still has at least one active shipyard, dedicated to the upgrade, adaptation and maintenance of its national fleet (transport, fishing...), and contributing to the production of parts for Offshore Wind Farms.

Offshore Oil & Gas

Regional intensity: decline (-)

By 2050, **fossil fuels exploitation is limited to States which don't benefit from favourable natural conditions to ensure their energy sovereignty with renewable energy.** Therefore, the sector is **drastically reduced** aiming to maintain specific vital activities and **regulated** with strict CO2 compensation measures. In this context, **some strategic gas deposits might continue to be exploited sparingly, but the overall activity would be minimal.**

NATURAL CAPITAL



Natural heritage

Status*: stable (~)

Provisioning and supporting ecosystem services are highly valued, **primarily for their capacity to serve human interests.** Their protection is targeted in national maritime and environmental strategies. **Marine biological diversity is maintained and restored** through strictly protected MPAs – excluding all human activities – that are designated only where marine ecosystems are the most “valuable” and to ensure the renewal of biomass stocks. But these MPAs remain sparsely, and their creation relies on national willingness. Also, these ecosystems are still **affected by land-based activities** such as large scale and intensive agriculture (which still uses fertilisers and pesticides) and **marine based activities** (e.g., large scale OWF).



Natural resources

Status: increased (+)

The **preservation of natural resources for future generations** has become a priority for most of Black Sea countries, ensured by high level and long-term planning). Natural resources extraction is highly monitored by States who are implementing **strict management measures in order to** ensure their sustainable use (MSY for fisheries). Development of the **circular blue economy** is highly supported by State incentives or through national programs enabling effective and **maximised** use of marine resources. The implementation of circular economy principles is high in the fishery and aquaculture sector, as well as shipbuilding and repair, creating new employment opportunities in these sectors.



Maritime and coastal space

Status: increased (+)

Coastal areas are suffering the consequences of a rapid climate change leading to extreme weather and frequent calamities on the coasts. Therefore, **important spatial management and protection measures towards adaptation** are implemented. With the decrease of some activities (e.g., maritime transport, tourism), both **coastal and maritime space are less overcrowded.** To reduce remaining spatial impacts from activities, multi-use of sea space is highly encouraged by States, and especially driven by offshore wind production (e.g., included in national calls and licensing procedures).

*MCC Status of 2050 compared to 2023

2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA

IMAGINARY 2: UNITY IN ADVERSITY



[Access the full report here](#)

What changes have occurred in the Black Sea by 2050?



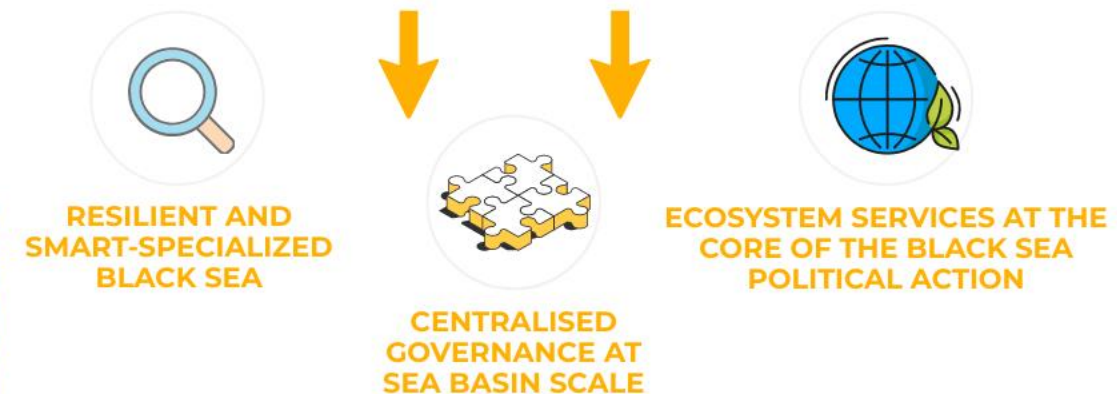
Stronger together: Cooperation deepened across the Black Sea.

Shared policies: Unified maritime governance and inclusive public consultation.

"Blue Health" first: Well-being and health prioritized over GDP growth.

Environmental accountability: Enhanced regulations to reduce ecological risks.

Smart specialization approach: Countries align unique strengths to advance the regional Blue Economy.



2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA

IMAGINARY 3: THE GREAT DECOUPLING



[Access the full report here](#)

What changes have occurred in the Black Sea by 2050?



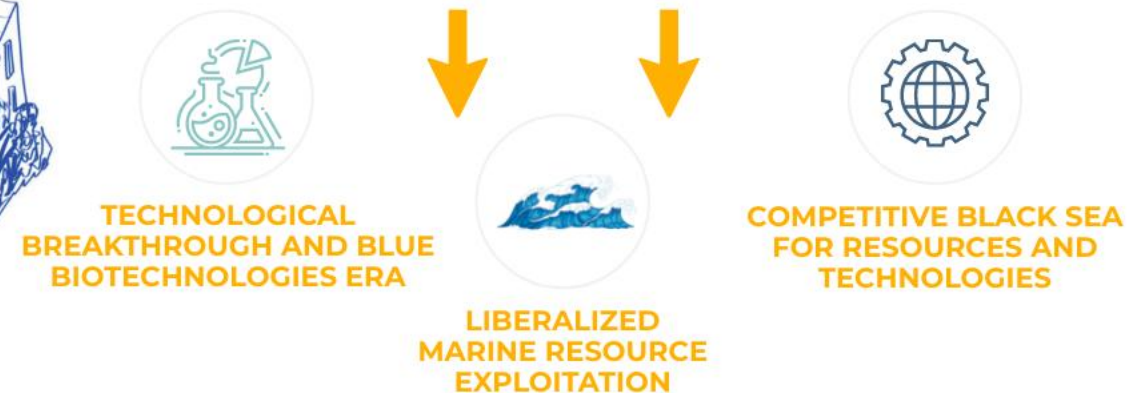
Technological leap: Major breakthroughs in energy and biotech.

Shifts in the blue economy: Algae-based products and biofuels thrive.

Rise of innovation: Innovation becomes geopolitical soft power.

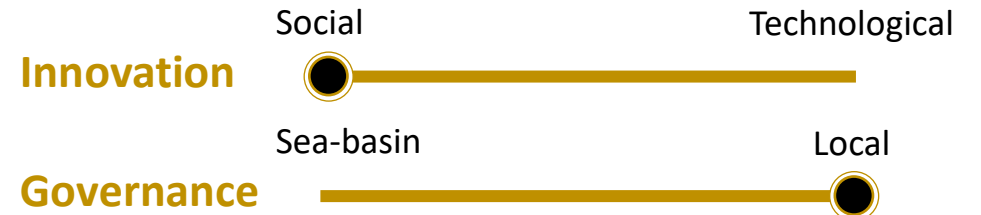
Knowledge race: Education and training attract skilled workers for blue jobs.

Active restoration over protection: Limited regulations and a human-engineered environment.



2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA

IMAGINARY 4: ECOTOPIA



[Access the full report here](#)

What changes have occurred in the Black Sea by 2050?



©Fanny Didou

Living with nature: Ecosystem protection becomes a universal societal goal.

Local self-sufficiency: Communities prioritize food and energy autonomy.

Deglobalization: Local resources and skills replace international supply chains.

Participatory culture: Communities take collective responsibility for sea and land resources.

Population shift: Inland migration reduces coastal density, fostering resilient, tight-knit communities.



LIVING
WITH
NATURE

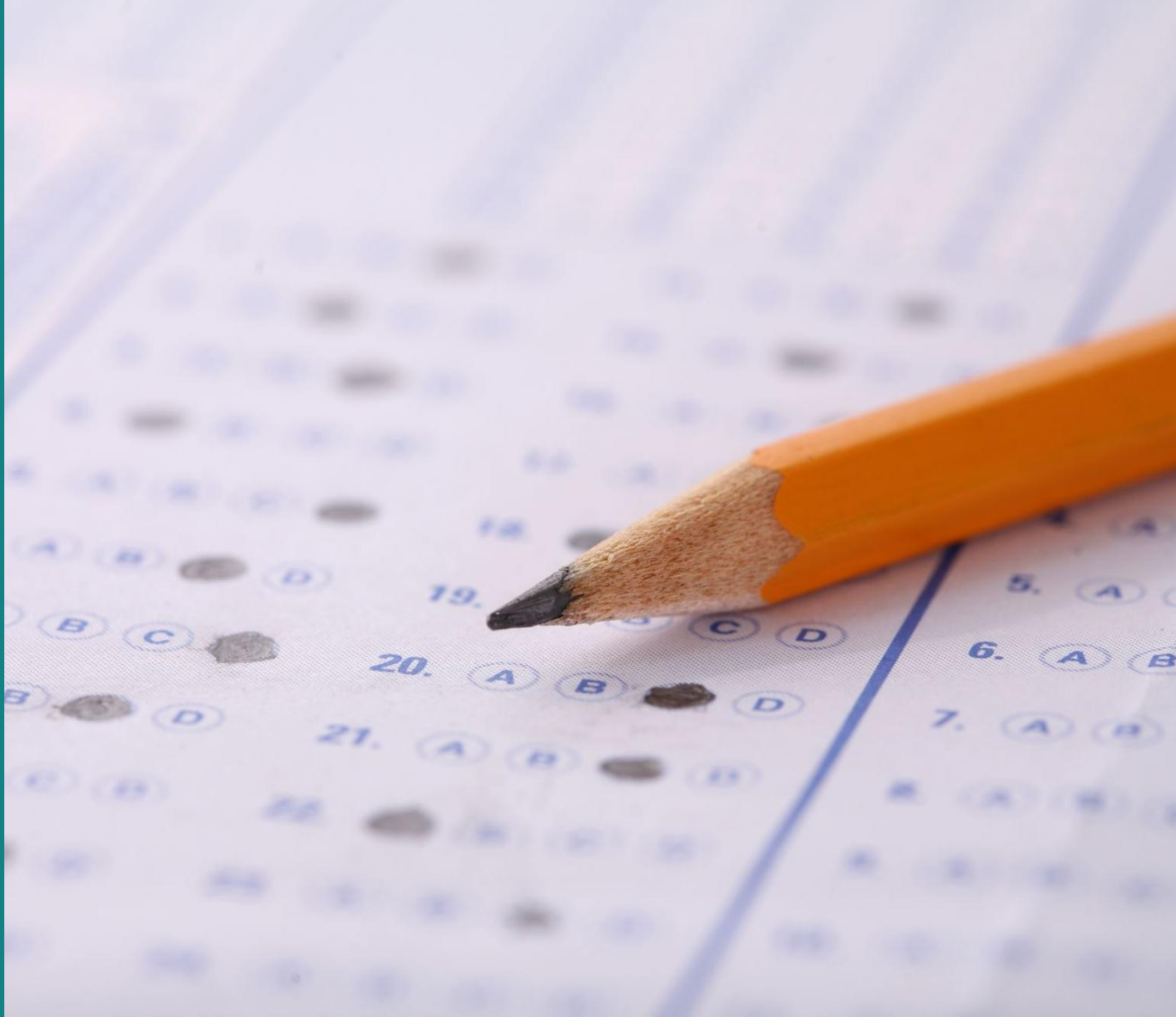


STRENGTHENING
OF LOCAL
COMMUNITIES



COMMUNITY-SIZE
BLUE
ECONOMY

**Insights from
Black-Sea
stakeholders:
collective
thinking in
practice**



2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA

How different do you think the world will be in 2050?



22

Extremely different



Very different



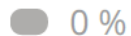
Slightly different



About the same



Totally similar



What will be the main driver(s) of change for tourism in the coming years?



25



2050 SUSTAINABLE BLUE ECONOMY IMAGINARIES FOR THE BLACK SEA

Towards which scenario is your local strategy is leaning to ?

Technocracy for the common good



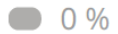
Unity in adversity



The great decoupling



Ecotopia



 **18**

VS

Which of the 4 scenarios would you like to see become true?

Technocracy for the common good



Unity in adversity



The great decoupling



Ecotopia

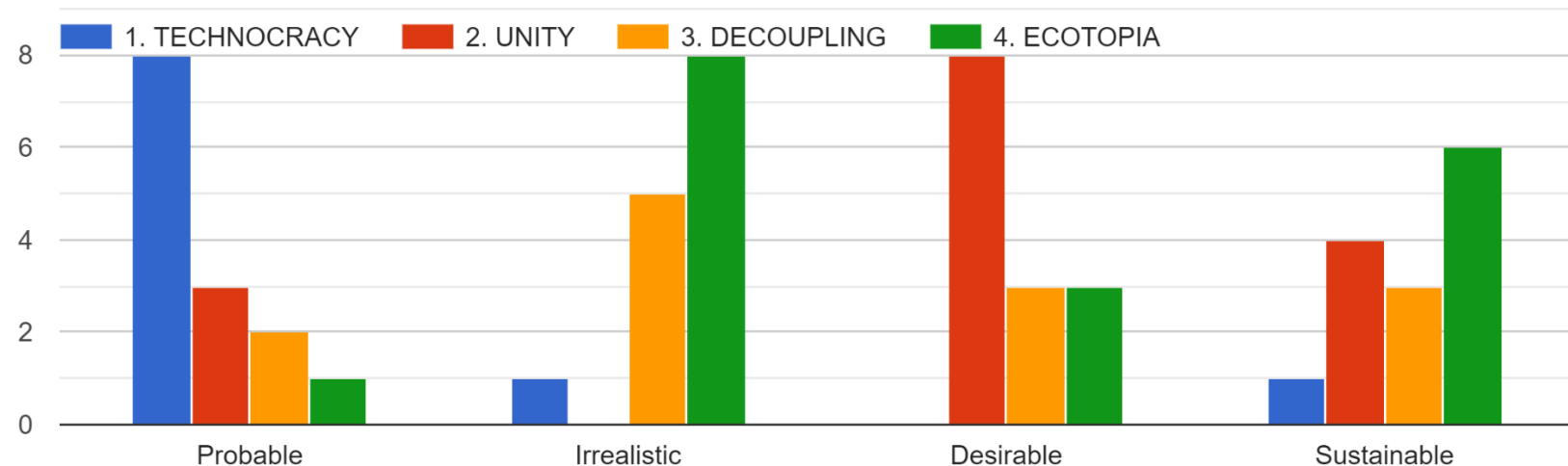


 **22**

Which scenario is the most:

- Probable
- Unrealistic
- Desirable
- Sustainable
- ?

 **14**



HAVE A LOOK AT THE FULL
IMAGINARIES!

STAY TUNED ON BRIDGE-BS CHANNELS
FOR THE RELEASE OF THE FINAL
REPORT ON OUR 2050 SUSTAINABLE
IMAGINARIES FOR THE BLUE
ECONOMY IN THE BLACK SEA!




**WP1.4.2. 2050 Sustainable Blue Economy
imaginaries for the Black Sea**



BRIDGE-BS

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SML (Stratégies Mer et Littoral)

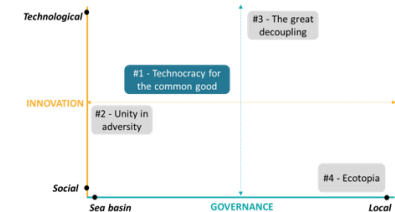
The activities of the BRIDGE-BS Research and Innovation Action are funded by the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 101000240.

IMAGINARY 1: TECHNOCRACY FOR THE COMMON GOOD

In 2050, Black Sea's Blue Economy has undergone profound changes. States responded to the successive crises of the 2020s (COVID, war in Ukraine, climate change) with economic protectionism, strong policies improving the management of resources and regulations drastically reducing carbon emissions. Public policies and the regulation of the Blue Economy is based on the large collection of data and global digital surveillance.

A reduction in international trade and the renationalization of production

Traditionally international sectors (shipping, tourism) have been faced with a steady decline in demand, and a significant reduction in their capacity as a result of a vast movement back to national production in all the countries of the basin.



Companies that have managed to hold on, in close collaboration with governments, have converted to meet domestic needs, based on certified "sustainable" models (low-carbon, 0 pollution, etc.). Conversely, the sectors providing the food and energy sovereignty of States have seen major development, within acceptable environmental limits. Aquaculture, for example, has taken root in most of the basin's coastal areas. By developing multi-trophic techniques and replacing protein sources traditionally derived from fishing with more sustainable terrestrial solutions (insects, plants), the sector has been able to drastically reduce its environmental impact and is now much more readily accepted by local populations. Similarly, to compensate for the abandonment of fossil fuels, countries with wind power resources (the Western sector) have invested massively in the development of offshore wind farms, occupying a large part of their maritime space and supplying their centralized electricity grids. The association of these farms with aquaculture production in multi-use formats remains limited to coastal farms, due to the associated energy costs. Shipyards have benefited greatly from the development of MREs, positioning themselves as key players in the production and maintenance of parks.

THANK YOU!

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