



3 May 2019
Original: French

Plan Bleu's National Focal Points Meeting

Marseille, France, 27-29 May 2019

Draft revised roadmap for MED2050 Phase 2

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Introductory Note

The MAP Mid-Term Strategy (MTS) 2016-2021 (Decision IG.22/1) set out – under the theme “Governance” – the objective “*To deliver knowledge-based assessments of the Mediterranean environment and scenario development for informed decision-making and stakeholder work*”. As noted in Chapter 3 of the Mediterranean Strategy for Sustainable Development (MSSD) 2016-2025: “*Science is key to success: all action and policy development at the national or regional level must rely on a strong evidence bases. The analytical tools that will allow the forecasting, planning and assessment of sustainable development-related impacts and actions need to be developed with the scientific community, which itself needs to direct its research capacity in support of decision making*”. To this end, the MTS includes a Key Output 1.4.1 reading “*Periodic assessments (...) addressing inter alia (...) scenarios and prospective development analysis in the long run*”.

The Secretariat supported by its Plan Bleu/Regional Activity Centre (Plan Bleu) prepared such a roadmap during the biennium 2016-2017 for a foresight study on the environment and development in the Mediterranean region at the horizon 2050 (MED 2050). A benchmark study analysed and compared 35 foresight exercises in the Mediterranean region and sub-regions produced over the last 15 years, identifying critical gaps and resources to build on. This 2017 study is available on Plan Bleu website.

The Meeting of the Plan Bleu Focal Points (Nice, France, 25-26 April 2017) provided feedback on the proposed roadmap and supported its timely implementation. The Focal Points recommended adopting a participatory process for building a shared vision based on national visions and exercises, to incorporate lessons learned and inputs from existing exercises and reports, and to mobilize additional external resources.

The Draft MED 2050 Roadmap was presented by the Secretariat to the 17th Meeting of the Mediterranean Commission on Sustainable Development (MCSD) held on 4-6 July in Athens, Greece (working document UNEP(DEPI)/MED WG.441/7). The MCSD considered that the last MAP foresight exercise was performed in 2005-2006, over ten years ago, and that the socio-economic, environmental and governance context in the Mediterranean has completely changed since then. The MCSD concluded essential to include this perspective of rapid changes in MAP policies, and underlined that MED 2050 should provide valuable information on future developments based on science-based scenarios and on anticipating actions to promote sustainable development in the Mediterranean region. There was a general consensus in the MCSD on the Draft MED 2050 Roadmap, and suggestions to further develop it were provided, as mentioned in the report of the meeting (working document UNEP(DEPI)/MED WG.441/9).

The Draft MED 2050 Roadmap was presented at the meeting of the MAP Focal Points in Athens, Greece, in September 2017 (Information document UNEP(DEPI)/MED WG.443/Inf.21). The Focal Points requested further details on the actions proposed in the roadmap, including measures taken to ensure MED 2050 linkages with other foresight exercises in the Mediterranean and mandated assessment reports.

Following the above, and as detailed in the roadmap, MED 2050 will provide valuable information on development futures using science-based scenarios. It will highlight necessary transitions and strategic investments in the short, medium and long terms, and serve as a key reference for the coming decades in anticipating actions to promote sustainable development in the Mediterranean region. In its design, MED 2050 is conceived as an original science-policy interface. It will involve decision-makers and stakeholders in a participatory approach, and help generate contrasting visions. MED 2050 capitalizes on previous and on-going works, including the 2019 State of the Environment and Development Report, while reinforcing dissemination,

communication and capacity building. Its findings will feed the review of the MSSD, as planned by Decision IG.22/2, as well as sectoral strategies at regional, sub-regional and national levels.

During COP 20 (17-20 December 2017, Tirana, Albania) the Contracting Parties welcomed the MED 2050 Roadmap and adopted its Phase I. They requested from the Secretariat through Plan Bleu to undertake a participatory process for its preparation and to present complete information on the Phase I outcomes and progress at the COP 21, for them to provide orientations for the Phase II (Decision IG. 23/4). The present revised Phase II roadmap intends to fulfil this objective.

The 2018-2019 Programme of Work and Budget (Decision IG. 23/14) includes activity 1.4.1.3 *“Develop and implement the first set of activities included in the MED 2050 Roadmap in accordance with Decision IG. 23/4”*.

The present document describes actions implemented in 2018 and 2019 or planned in 2019, and further develops the methodology proposed for the successive phases, detailing in particular participative approaches.

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Preparation of the MED 2050 Foresight on the Environment and Development in the Mediterranean

Introduction

1. Since the late 1970's, Mediterranean countries have decided to cooperate to put "*at the disposal of political leaders and decision-makers all information that will enable them to develop plans likely to ensure sustained optimal socio-economic development without degrading the environment*" and help "*governments of coastal states in the Mediterranean region to increase their knowledge of the joint problems they have to face, both in the Mediterranean Sea and in their coastal areas*" (Inter-governmental Meeting, UNEP/IG.5/7, 1977).
2. Within this context and in the framework of the implementation of article 4 of the Barcelona Convention and of the Mediterranean Strategy for Sustainable Development (MSSD), Plan Bleu/Regional Activity Centre (Plan Bleu) has been mandated with the "*preparation of analyses and prospective studies to assist in constructing visions of the future as an aid to decision-making*" and the "*dissemination of the findings of this work in the various appropriate forms and channels, including the regular publications of state of environment and development reports and environment and development outlook for the Mediterranean region*" (UNEP(DEPI)/MED IG.19/8, Decision IG.19/5 Mandates of the Components of MAP, 16th Meeting of the Contracting Parties, 2009).
3. Plan Bleu has coordinated and published two major Futures Reports to date: "*Futures for the Mediterranean Basin: The Blue Plan*" (1989) and "*A sustainable future for the Mediterranean: The Blue Plan's Environment and Development Outlook*" (2005). Those reports have served as a reference to prepare environment and sustainable development policies in the Mediterranean, including the MSSD. They have supported regional, national and sectoral planning in various domains, and been cited hundreds of times. While they are now outdated and best used as historical references, decision-makers and experts continue to request Plan Bleu with information drawn from those reports given the lack of work fulfilling the same objectives.
4. The MAP Mid-Term Strategy (MTS) 2016-2021 reiterates the objective "*to deliver knowledge-based assessments of the Mediterranean environment and scenario development for informed decision-making and stakeholder work*" (Decision IG.22/1). To implement this decision, Contracting Parties to the Barcelona Convention included in the Programme of Work and Budget 2016-2017 the development of "*a roadmap for the preparation of MED 2050 report*", as the Main Activity 1.4.1.3 (Decision IG.22/20).
5. To prepare such roadmap, Plan Bleu organized an expert workshop (December 2006), conducted a benchmark study on the strengths, weaknesses and gaps of 35 recent foresight studies in the Mediterranean region, and consulted with national representatives and experts. The Draft MED 2050 Roadmap was presented and discussed at the meeting of Plan Bleu Focal Points (April 2017), the 17th Meeting of the Mediterranean Commission on Sustainable Development (MCSD) (July 2017) and the meeting of the MAP Focal Points (September 2017). Plan Bleu Focal Points and MCSD members expressed support for the preparation and implementation of MED 2050 on the basis of the proposed roadmap. MAP Focal Points requested further information on synergies with other activities, planning and budget. A roadmap revised on this basis was presented to the Contracting Parties at their 20th Ordinary Meeting, in December 2017, Tirana, Albania. The Contracting Parties welcomed this roadmap, adopted its Phase I and requested the Secretariat and Plan Bleu to present the progress of Phase I at COP 21 to enable them to provide guidance for Phase II. (Decision IG 23/4). This involves preparing a revised Phase II roadmap.
6. Since this ordinary meeting, Plan Bleu has been working to build the **foresight network** that will bring MED 2050 to life throughout the project. A workshop was organized in April 2018. Plan Bleu presented the objectives and challenges of MED 2050 at the International Conference

"Environment and development in the Mediterranean yesterday, today, tomorrow" on the occasion of its 40th anniversary (5 June 2018, Paris, France). In addition, a mapping of interested foresight actors and the design of participation methods are in progress.

7. The present revised roadmap is divided in five sections. Section 1 recalls MED 2050 agenda (including the five main reasons to carry out this project). Section 2 summarizes the findings and gaps identified in the benchmark study. Section 3 presents MED 2050 achievements, and work in progress in Phase I (2018-2019), and proposed Phase II activities (2020-2021). MED 2050 is a modular exercise. Each module is accompanied by a "methodological focus", proposed to ensure the initiative is open and participatory at all stages (Annex 4). Section 4 provides an update on the mobilization of financial resources. Section 5 outlines conclusions and expected outputs.

8. Compared to the previous roadmap edition, this update describes achievements and on-going activities under Phase I, and provides further details on MED 2050 Phase II organization into modules, each supported by a specific methodology.

Box 1: Supporting environment and sustainable development policies through foresight

Foresight is defined as “A *systematic, participatory and multi-disciplinary approach to explore mid- to long-term futures and drivers of change*” (A *Glossary of Terms commonly used in Futures Studies*, Forward Thinking Platform, 2014). Participatory strategic foresight relies on three components: (i) Futures analysis: forecasting, forward thinking, prospective, etc.; (ii) Planning: strategic analysis and priority setting; and (iii) Networking: participation and dialogue. The proposed MED 2050 roadmap follows those three principles.

Foresight exercises can support public and private decision making in a number of ways:

- *Planning*. Foresight helps decision-makers identify successive priorities across a long time-period. Considering long-term horizons is critical in environmental policies. It helps decision-makers plan for structural changes, identify mid-term transitions and short-term investments required to get on the path of a desirable future.
- *Awareness raising*. Foresight analyses raise awareness on emerging challenges and opportunities associated with environmental changes. They are crucial for example to take stock of risks, impacts, necessary evolutions and opportunities associated with climate change.
- *Integration*. Foresight integrates economic, social and environmental factors, breaking down barriers across specialties and sectoral actions, in a multi-disciplinary and systemic approach.
- *Economic efficiency*. Foresight exercises help decision-makers improve economic efficiency by identifying strategic investments in prevention measures early enough to avoid facing major reparation or relocation costs at a later stage.
- *Evaluation*. Foresight exercises help understand whether policies already in place or decided on are sufficient to reach environmental and sustainable development goals, e.g. Sustainable Development Goals (SDGs).
- *Mobilization and dialogue*. Foresight helps mobilize decision-makers and stakeholders across geographical and institutional boundaries. It helps build dialogues, partnerships, and shared visions on desirable futures and critical decisions.
- *Communication*. Foresight exercises can be a powerful vehicle to communicate on priorities, challenges, individual and collective responsibilities. They set the light on institutions and processes addressing them.

I. Timing for a Foresight Study on the Environment and Development in the Mediterranean at the horizon 2050 (MED 2050)

9. Preparatory activities (benchmark, expert workshops, and stakeholder consultations) established that a new foresight on environment and development was necessary in the Mediterranean, and provided insight on how this exercise should be shaped to fill gaps and facilitate decision-making in the next decade, while building on existing knowledge and resources.
10. There are five major reasons for implementing MED 2050:
- i. The first reason is the transformation of Mediterranean context. With the Arab springs, acceleration of climate change, oil counter-shock, national, regional and global geopolitical upheavals, the situation has evolved drastically since MAP last foresight exercise published in 2005. It is essential to take into account these dynamics in a new foresight exercise at horizon 2050.
 - ii. The second reason is the choice of a longer horizon. A 2050 perspective allows to consider long-term issues, such as climate change, possible ecosystem disruptions and their economic and social outcomes, and identify necessary (economic or energy) transitions.
 - iii. The third reason is the will to include a section focused on the sea. In line with Barcelona Convention and MAP concerns, this exercise proposes to put the sea and maritime economy upstream of the thought process, considering the sea as a systemic framework.
 - iv. The fourth reason is the use of all foresight assets, going beyond forward anticipation. MED 2050 exercise will reveal the trends but also possible disruptions through the analysis of weak signals, dialogue among actors with contrasting visions of the future, co-construction of a consensus on what is collectively desirable, and evaluation and construction of transition paths, in a context of uncertainty, to achieve shared objectives.
 - v. The fifth reason is the will to turn this participatory exercise into a communication and mobilization tool for decision-makers, general public and media. MED 2050 not only proposes to produce a specific study, but also to put MAP at heart of public debate on the future of the Mediterranean region.
11. MED 2050 findings will feed the process of reviewing the implementation of the MSSD 2016-2025, as planned by Decision IG.22/2. As noted in Chapter 3 of the MSSD 2016-2025: *“Science is key to success: all action and policy development at the national or regional level must rely on a strong evidence bases. The analytical tools that will allow the forecasting, planning and assessment of sustainable development-related impacts and actions need to be developed with the scientific community, which itself needs to direct its research capacity in support of decision making”*.

II. Benchmark study: findings and identified gaps

12. A benchmark study was conducted in preparation for MED 2050. Thirty-five studies and foresight exercises carried out over the last fifteen years at the scale of the whole or a significant part of the basin, on environment and development issues, were selected and analysed. Exercises ongoing or planned have also been identified and taken into account. The benchmark full report was published in December 2017 and is available on Plan Bleu website (<http://planbleu.org/en/publications/to-a-new-prospective-exercise-on-the-environment-and-the-developments-in>). The study identified gaps on the content and methods of existing analyses. Main gaps are listed below.

13. Gaps in the content of these exercises include: relatively short horizons (very few works beyond 2030 horizon); disruption factors and weak signals are very little explored, the ecosystem and

Mediterranean maritime area are not often at the centre of the research (except in MED TRENDS, piloted by WWF with Plan Bleu's support). The state of the environment is only considered as an effect of socioeconomic developments (downstream) and not as impacting socioeconomic development. Opportunities associated with a transition towards a blue economy are not considered. Finally, very few works reflect sub-regional heterogeneities, which limits their policy relevance for Mediterranean countries.

14. Methodological shortcomings include: a tendency to rely on forecasting alone rather than backcasting, which limits the capacity to identify operational recommendations and investments. Experts often work in a small circle, leaving little space for stakeholder direct participation. Finally, communication with the public, the media and high-level decision-makers is limited.

15. MED 2050 will build on both achievements and lessons learned from these past exercises.

III. Key directions for MED 2050

16. Preparatory work carried out by the Secretariat through its Plan Bleu since 2016 has led to the preparation of a roadmap for MED 2050. MED 2050 is designed as a modular project, which will allow for consultations with the Contracting Parties throughout the exercise.

17. MED 2050 relies on existing foresight studies, capitalizes them, and fills important gaps highlighted in the benchmark study. Specific synergies with other works in progress have already been identified (see Annex 5), and others emerge as MED 2050 is implemented.

18. MED 2050 approach is rather distinct from the 2005 forecasting exercise, which was essentially quantitative, carried out by experts and focused on the environmental impacts of major socio-economic trends foreseeable over a "medium term" horizon (2025).

19. This difference is reflected in seven major orientations:

- i. **The choice of a long term 2050 horizon** - with an intermediate horizon at 2030 (corresponding to the SDGs).
- ii. **A balance between quantitative and qualitative approaches.** Combining intelligent use of existing trend information (notably, but not only, available in the State of the Environment and Development Report 2019 under preparation) with a more qualitative analysis of disruptions and weak signals. The statistical concern will therefore be present, but the project intends not to be too complex or too intensive in data.
- iii. **Taking into account climate change in a more systemic perspective,** allowing to integrate the consequences in return of climate change on ecosystems as well as on the economy, agriculture, lifestyles, migrations, urbanization, energy policies, etc.
- iv. **An important place given to the prospective of the sea,** not central to the 2005 foresight report. This will suppose differentiating a scientific work on the changes in the marine ecosystem articulated with a more global perspective of the Mediterranean region. The prospects for the blue economy will be taken into account in this context.
- v. **An open, participatory foresight, allowing to structure a dialogue** between the various Mediterranean countries and to involve the relevant stakeholders and the civil society. MED 2050 will support the documentation of contrasting visions of the Mediterranean future. It will acknowledge that countries and stakeholders start from different situations and viewpoints, and help co-construct shared objectives in the medium and long term.
- vi. **A more strategic foresight to co-design transition paths rooted in reality and operational.** Transition paths will take into account both the regional heterogeneity of the

Mediterranean and the different temporalities. The central question to which the prospective must be able to answer is indeed not what will be the future in 2050, but that of transitions: how to move from current situations and crises to medium-term action plans and long-term objectives? MED 2050 will thus make an important contribution to a future eventual edition of the MSSD.

- vii. **A much bigger investment in communication.** The results of this work, even at intermediate stages, will be made more accessible to the different interested publics - from specialists to citizens. To do this, a reflection on the coherent and interactive communication strategy was conducted from the start of MED 2050 design phase.

20. Finally, MED 2050 is an ambitious project that aims to meet both the expectations of the various interested countries and stakeholders, and the major ecological challenges of the Mediterranean by 2050. The proposed roadmap has been updated and revised on the basis of COP 20 decision (17-20 December 2017, Tirana, Albania), taking into account on-going activities and expected progress by the end of 2019.

21. During consultations, policy makers and other stakeholders, including national Focal Points, highlighted the following needs:

- The involvement and continuous information of national Focal Points and local users;
- Sharing of experiences and good practices (e.g. using the web platform);
- Integrating, into MED 2050, more capitalization, skills development and training;
- Adopting a participatory process to build a shared vision of the future, based on national exercises and visions, incorporating lessons learned and other elements from existing exercises and reports and mobilizing additional resources;
- Exploring synergies between MED 2050 and recent or concomitant MAP and non-MAP activities.

The proposed activities and agenda for MED 2050 have been established following these guidelines.

22. The revised proposed roadmap is organized around four main activity modules (Module 1: Trends, ruptures and weak signals; Module 2: Comparing and sharing contrasting visions; Module 3: Designing scenarios; Module 4: Co-constructing transition strategies. Scientists and MAP experts are already or will be associated to all modules. A graph summarizing these components is presented in Appendix 1. A provisional schedule is given in Appendix 2.

23. Phase I of MED 2050 corresponds to the activities carried out and in progress for the 2018-2019 biennium (mobilization of existing resources, creation of a network and participation strategy, and implementation of Module 1 on evaluating trends, disruptions and weak signals). Phase II of MED 2050 corresponds to the activities planned during the 2020-2021 biennium (Modules 2, 3 and 4, specified below and detailed in Annex 4).

1) Phase 1 - 2018-2019 biennium

1.1. Mobilization of existing resources and creation of a network on the future of the Mediterranean

24. This step comes upstream of the successive modules described below. It has been the focus of special attention in 2018 and 2019, and will remain ongoing throughout the project.

25. Several activities have already been carried out during the 2018-2019 biennium, and have mobilized resources and begun to structure the MED 2050 Foresight Network.

26. In April 2018, a brainstorming workshop was held in Plan Bleu, aiming to frame the operationalization of MED 2050 and to lay out the exercise under different options.

27. In June 2018, Plan Bleu organized an International Conference entitled "Environment and development in the Mediterranean, yesterday, today, tomorrow", co-organized with Serge Antoine Foundation, which brought together more than 130 participants, experts from the Mediterranean basin, policy makers, representatives of MAP components, national, European and international institutions Mediterranean countries and members of the civil society. Major trends in the Mediterranean were presented and discussed, with MED 2050 objectives at the centre of the discussions.
28. Exchanges with several thematic networks took place, notably on the themes of the sea (towards a foresight of the Mediterranean Sea looking at long term horizons), the rural environment and agriculture, demography (contact established with a group of Mediterranean demographers, as well as with the network PROSPER, network of foresight managers for French public research, etc.).
29. Some activities are in progress and will be completed by the end of the 2018-2019 biennium.
30. Since the beginning of MED 2050 exercise, the Secretariat, through its Plan Bleu, has consulted various Mediterranean stakeholders (Plan Bleu and MAP Focal Points, MCSD members, MAP partners and other stakeholders, experts, etc.), to identify national experiences, expectations, and interested parties to participate in MED 2050 or to support regional, sub-regional or national workshops.
31. Many stakeholders expressed great interest in participating and being involved to varying degrees in MED 2050 foresight network. The network is being set up and remains to be completed with new stakeholders, particularly in the South and East of the Mediterranean. Participation in the network is open and may evolve throughout the project depending on the development of themes and interests. This network is designed as a dynamic science policy interface. It facilitates mobilization of existing resources, strengthens ongoing dialogue among stakeholders, and facilitates the uptake of research results in policy development. MAP's institutional framework and existing partnerships support the network creation.
32. Institutions and experts involved in recent and ongoing foresight studies in the Mediterranean, as well as relevant scientific networks and institutions were invited to participate. MAP and Plan Bleu Focal Points were also invited to participate and / or identify national participants and representatives. MAP components provide critical expertise and facilitate synergies with other MAP exercises.

Box 2: Setting up the network and participation strategy

MED 2050 team, chaired by the Vice President of the French Foresight Society and Vice-President of Plan Bleu, has been building the MED 2050 foresight network and its participation strategy for several months.

Work is under way to propose methodological innovations at each stage of MED 2050.

Numerous interviews have already been held with experts, decision-makers and members of civil society from all three sides of the Mediterranean, and many more are scheduled. Stakeholders have shown great interest in MED 2050 exercise and its innovative and ambitious participatory approach.

33. More specifically, MED 2050 network is composed of five distinct entities, each with a different and complementary composition, role, frequency of interaction and project intervention stages. These entities can be declined as follows: the Plan Bleu team (in charge of MED 2050 project, in close collaboration with other MAP entities), the scientific committee (in charge of ensuring the scientific coherence of the project results and whose members, recognized experts, will only meet on few occasions), the foresight group (having a fundamental production role throughout the project), groups assembled for specific workshops (to collect contrasting visions), and the wider network (at the heart of information exchange, that can be consulted on a timely basis, especially during Module 2

on contrasting visions). Network participants will exchange throughout MED 2050 on the main results, analyses, points of view and questions, using in particular the web platform dedicated to MED 2050 (Box 2). These different entities/groups and their roles are detailed in Annex 3.

34. The participation strategy is also under discussion. MAP Phase II, adopted by the Conference of Plenipotentiaries of the Convention for the Protection of the Mediterranean Sea against Pollution and its Protocols (Barcelona, 9-10 June 1995), as Annex I of the Barcelona Resolution on Environment and Sustainable Development of the Mediterranean Basin, states that "*information and public participation are essential dimensions of sustainable development and environmental protection*". At its 17th Meeting on 4-5 July 2017 in Athens, Greece, the MCSDD also called for greater attention to participatory approaches involving broader stakeholder consultations, including through the use of electronic tools (web platforms), in addition to the involvement of national governments (UNEP (DEPI) / MED WG.441 / 9). MED 2050 will therefore rely on an innovative and efficient participation strategy, making the initiative open and collaborative.

Box 3: The MED 2050 web platform, a strategic tool for thinking about the future of the Mediterranean Basin

The web platform dedicated to the initiative and the progress of the MED 2050 project was created in June 2018. It will be further developed as the project advances. It is thought of as a place of exchange and sharing of documents (studies, events, written documents or videos...) to feed the reflection on the future of the Mediterranean basin by 2050 from the angles of environment and development. A "MED 2050 logo" would give visibility to the MED 2050 initiative and the work of partners who contribute to it directly or indirectly.

Methodological focus: Once further developed, the MED 2050 platform would include:

- A space dedicated to the MED 2050 initiative as such (with an introductory page on the project, its objectives, the successive modules, a relay to one or more specific consultation platforms, in particular to feed Module 2 on contrasting visions, and a more general work area with the possibility of posting comments, opinions, ideas, for the work team).
- A space dedicated to foresight works at national and regional levels (with concrete cases, examples of studies, testimonies...).
- A general space dedicated to the foresight tools and to their use (with a page on the Imagine method, examples of concrete cases set up according to this method...).

35. A newsletter will also be developed by Plan Bleu and made available on the web platform. This newsletter will not focus solely on scientific results. It will leave room for questions, sharing of national, regional or international experiences, information on current projects, debate on future options and scenarios, etc. Successive newsletter articles on the same subject could be grouped and synthesized to produce thematic booklets. Possible thematic booklets will be reviewed by the scientific committee and disseminated widely. These intermediate products will contribute to the preparation of the final report, and will support the communication strategy by targeting a broader audience than the final report.

36. Calendar. The capitalization, consultation and animation of the network required special attention in 2018 and 2019. These activities will then be continued during the 2020-2021 biennium, in order to make the most of new developments and ensure a continuous dialogue between interested parties. In particular, intermediate products will be presented to the various bodies of the MAP system, consulted on a voluntary basis.

1.2. Assessment of trends, disruptions and weak signals in a new Mediterranean context

37. This step corresponds to Module 1 of MED 2050. Its implementation is underway with a synthesis report expected by the end of the 2018-2019 biennium. It focuses on the forecasting of trends and the identification and analysis of disruptions and weak signals. It will target the most influential variables in the Mediterranean region, both quantitative and qualitative.

38. Module 1 is based on synergies with recent and ongoing MAP and non-MAP work to make efficient use of resources. Several works are feeding the trend analysis: the Report on the State of the Environment and Development in the Mediterranean (SoED 2019) under development, the Shared Environmental Information System (SEIS), the Integrated Monitoring and Assessment Program (IMAP), the MSSD 2016-2025 dashboard, the MedECC expert network on climate and environmental change in the Mediterranean first assessment report in preparation, etc.

39. Plan Bleu has initiated the establishment of a long-term series database and will continue populating it until the end of 2019. This long-trend data collection work aims, inter alia, to compare trends expected in the previous Foresight Report published by Plan Bleu in 2005, and the actual developments, thus identifying major changes and change factors.

Box 4: The SoED 2019 and the MedECC Assessment Report: Two Key Exercises on Module 1 of MED 2050

The new Report on the State of the Environment and Development in the Mediterranean (SoED 2019) takes stock environment and development trends in the Mediterranean. Its publication is planned for 2020, and is the result of a collective effort of the components of the Mediterranean Action Plan (MAP), the Contracting Parties and many external partners. Plan Bleu is organizing its realization. A first interim report in April 2019 forms the basis of MED 2050 Module 1.

The assessment report being prepared by the MedECC expert network on climate and environmental change in the Mediterranean will also make an essential contribution to MED 2050 foresight, and in particular to Module 1. Experts in this network are working on a systematic review of the scientific work on climate and environmental change in the Mediterranean and its impact for decision-makers. Since May 2018, Plan Bleu hosts MedECC Scientific Secretariat in the framework of a partnership with the Union for the Mediterranean and funding from the Swedish Cooperation (SIDA).

40. Methodological focus: in order to implement Module 1 of MED 2050, Plan Bleu has built a **partnership with LabexMed**, a program of excellence for the promotion of interdisciplinary research in human and social sciences on the Mediterranean, based in Marseille and Aix-en-Provence, France.

Box 5: Plan Bleu / LabexMed Partnership

This partnership gives the opportunity to a postdoctoral researcher to work for one year in Plan Bleu. During the first part of his contract, the postdoctoral researcher will build on the existing resources in Plan Bleu and its network of partners. His work will rely in particular on studies identified in the benchmark and work in progress collected from the Plan Bleu Focal Points and members of the MED 2050 foresight network, as well as on the intermediate results of the SoED 2019 and MedECC assessment report.

The challenge at the heart of the partnership with the Labex MED is to go beyond disjoint sectoral or institutional analyses to understand the structuring trends in a systemic framework, ensuring the coherence of hypotheses and putting forward the interactions and interdependencies between the analyses. This partnership will also highlight disruption factors and weak signals, thus offering a more qualitative analysis to Module 1. The postdoctoral researcher will collaborate with several

Labex MED thematic and transversal laboratories, members of the Plan Bleu team and its partners. The results of this work will be presented for discussion and complement to the foresight group, and will lead to the production of a first MED 2050 product: report on trends, disruptions and weak signals.

The science / policy interface being at the heart of LabexMED interests, MED 2050 Module 1 is a precious opportunity for the Plan Bleu to collaborate with research laboratories, create synergies, and base MED 2050 on a scientifically recognized work, including in its interdisciplinary approach.

41. The foresight group will meet during a first plenary session in November 2019, to inform and complete the analyses resulting from SoED 2019, MedECC assessment report and partnership Labex MED. A Module 1 is expected on this basis at the end of the 2018-2019 biennium.

2) *Phase II - 2020-2021 biennium*

2.1 Compare and share contrasting visions across the Mediterranean

42. This step corresponds to Module 2 of MED 2050. Unlike most of the analyses identified by the benchmark study, MED 2050 will not rely solely on expert work. Contracting Parties and stakeholders will be consulted on their visions for the future of the Mediterranean (on a voluntary basis), with the aim of sharing potentially contrasting visions across the Mediterranean sub-regions. This approach will be consistent with the participation principle stated above.

43. **Methodological Focus:** The objective of Module 2 is to bring out and recognize differences in viewpoints and aspiration, thanks to a multi-country and multi-stakeholder qualitative approach. To prepare this module and make it representative and participatory, Plan Bleu seeks out and builds partnerships with existing networks and partners.

44. Two options are envisaged for Module 2 the implementation, depending on resources.

45. **Option 1:** remote consultation of national and local experts and decision-makers, on their visions of the future of the Mediterranean. This option would allow to collect contrasting visions, although not reaching all the relevant stakeholders and not allowing for a real dialogue.

46. **Option 2:** National and Sub-regional Workshops: Several prospective workshops would be organized in selected sub-regions to engage stakeholders (experts, policymakers, members of civil society) on their visions for the future of the Mediterranean basin. These workshops could be organized around the following points: discussion in working groups on the results of Module 1 (trends, disruptions, weak signals), joint foresight exercises allowing for the emergence of contrasting visions of the future, then sharing and consolidating these visions. This option would make it possible to reveal the specificities of sub-regional visions in the Mediterranean.

47. Under both options, Module 2 can be opened to a wider consultation relayed by network leaders. Questionnaires will be prepared, disseminated and analysed, using recognized foresight methods, through partnerships with existing network leaders and representative of the main actors and issues in the Mediterranean, including interested MCSD partners.

48. Special attention will be given, in this context, to the prospective of the sea, if possible through a specific workshop. Foresight actors and specialists of the marine environment will be brought together to work and bring out contrasting visions of the future regarding the sea.

2.2 Construct scenarios based on trends, ruptures and weak signals, and contrasting visions

49. This step corresponds to Module 3 of MED 2050. It will be based both on the results of Module 1 (trends, disruptions and weak signals), and Module 2 (contrasting visions).

50. The foresight group will be responsible for articulating the results of Modules 1 and 2 to take into account the different viewpoints between countries, sub-regions and stakeholders, identify common or convergent objectives, and build several contrasting scenarios on this basis. One of the scenarios will be chosen, the most realistic and the most desirable (consensual), in order to serve as a goal to pursue under Module 4 on transition paths.

2.3 Co-construct trajectories and transition strategies in the short, medium and long terms

51. This step corresponds to Module 4 of MED 2050. It will build on the three previous modules to co-construct concrete transition trajectories and strategies, bearing in mind the importance of temporalities and the articulation between long, medium and short terms. Agreeing on desirable or acceptable futures by 2050 (long-term) will make it possible to identify alternative transition strategies in the medium term (horizon 2030) and to make comparative assessments of their plausibility, as well as to put forward critical investments.

52. Module 4 will take stock of the obstacles, facilitating factors, opportunities and risks, to overcome obstacles towards the most desirable scenario selected at the end of Module 3.

53. MED 2050 will take into account sub-regional heterogeneity. MED 2050 thus directly intends to feed into future strategies and agendas, including the mid-term review of the MSSD 2016-2025, as well as national and sectoral plans. MED 2050 will help identify major obstacles and early responses when they are still achievable as well as opportunities to achieve a desirable future. It will help anticipate emergencies, avoid repair costs and maximize co-benefits.

54. One of the dimensions of transition pathways to a desirable future is the blue economy. The BlueBoatsMed initiative (Box 6) is used by Plan Bleu as a way to prefigure (test) future sectoral analyses on transitions.

Box 6: Potential for Synergy with the BlueBoatsMed Initiative on identifying transitions paths (Module 4 of MED 2050)?

In the framework of MAP 2018-2019 Programme of Work, Plan Bleu continues to work on regional instruments for sustainable tourism, including possible guidelines, particularly in the areas of cruising and recreational boating. A set of ongoing projects could be part of this reflection which is also fed by the Regional Action Plan for Consumption and Sustainable Production, the Protocol on Integrated Coastal Zone Management, the SAP BIO and the Regional Plan on Marine Litter.

In 2019, Plan Bleu received one-off support from the BlueMed Start-up Action initiative to organize a series of three exchanges with experts. Exchanges will frame the perspectives of evolution of cruise and recreational boating sectors and their major impacts. The expert group will then identify promising innovations tackling each of these impacts. These innovations will be presented and discussed by the experts, who will assess together those that may have the potential to lever transitions towards more sustainable and inclusive sectors. The innovations highlighted by the BlueBoatsMed initiative, and the approach designed to identify potential transition levers, based on promising innovations, could fuel in MED 2050 Module 4, and allow testing a methodological approach.

2.4 Results dissemination. Knowledge Development and Technical Assistance

55. MED 2050 will contribute to the visibility of the MAP system. MED 2050 will play an active role in the capitalization and dissemination of its own results as well as of the conclusions of other relevant prospective studies. Synthetic newsletters and booklets will provide communication materials to reach a wide audience, from decision-makers to the private sector, including the general public. In addition, the Secretariat through its Plan Bleu will seek funding, in collaboration with stakeholders at the national level, to respond to national technical assistance needs, present the results of MED 2050 at the local level and help mainstream them in foresight studies, strategies and action plans at the subregional and national levels.

56. The web platform (Box 2) will be a strategic tool for results dissemination throughout the MED 2050 project.

57. At the end of this exercise, Plan Bleu could, if resources allow, produce a methodological guide for the sharing of experience and good practices on the development of such foresight exercise. The methodological approach, aimed at federating Mediterranean initiatives, could be applicable at different scales in the Mediterranean region and beyond.

IV. Mobilization of financial resources

58. A set of core activities - sufficient to produce a MED 2050 report for COP 22 - will rely solely on technical partnerships, MTF funding and limited co-financing. The necessary co-financing for the first biennium has been mobilized. Additional or more ambitious activities require the mobilization of co-financing or complementary partnerships. Some responses to calls for projects brought together sociologists, economists, statisticians and modellers (including the setting up of a European research project focused on public policies and disruptive factors). Although not selected at the final stage (despite a preselection to the final phase), this ambitious mobilization of actors, and more generally all the work put in place to respond to this call for proposals could serve as a basis for another proposal. Financial partnerships remain to be built for an ambitious option on modules 2 and 4, especially for country activities. Some funding streams are under discussion but remain to be completed.

59. The organization of MED 2050 into modules and packages of activities will help to find additional funds associated with explicit activities and products. For example, development or investment banks (World Bank, European Investment Bank, African Development Bank, etc.) may be interested in obtaining benchmarks to design future investment strategies, by financing activities targeting transition trajectories and critical investments in the different parts of the basin. The presentation of the first MED 2050 products should facilitate this mobilization for later phases.

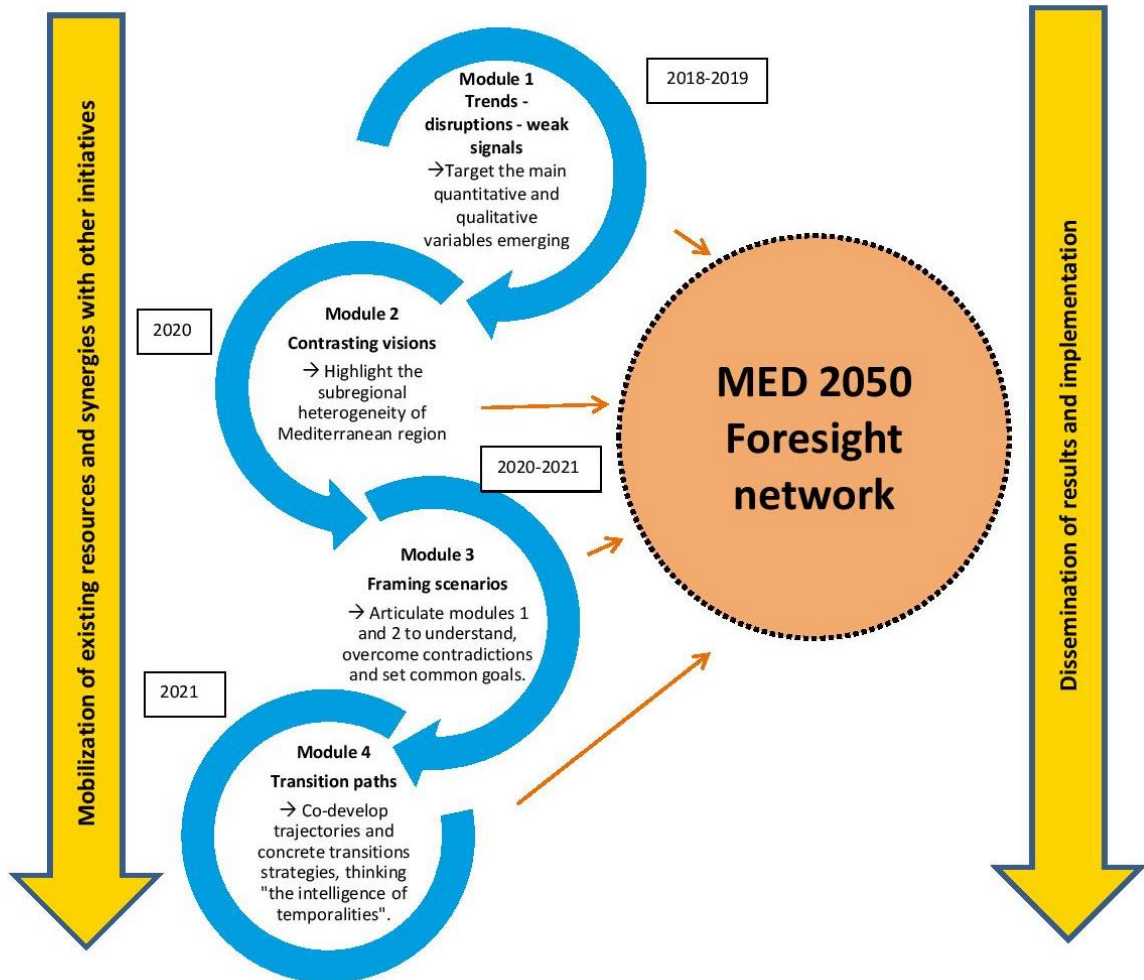
60. Mediterranean countries may wish to organize and support subregional or national workshops. Bilateral or international donors will also be approached in collaboration with stakeholders to support workshops, knowledge development and technical assistance in Southern and Eastern Mediterranean countries, or detailed analyses of ecosystems and issues identified as priorities during the consultation (European Union, French Development Agency, etc.). Funding by the MTF and the official support from the Contracting Parties to the Barcelona Convention will allow for the establishment of such co-financing and partnerships, while ensuring that MED 2050 products will feed into the specific objective of the Mid-Term Strategy 2016-2021 to deliver estimates based on knowledge of the Mediterranean environment and development scenarios, to support the work of policymakers and stakeholders.

V. Conclusion and expected products

61. MED 2050 will produce a variety of products in line with the goal of reaching a wide and diverse audience. INFO/RAC will provide advice on the dissemination strategy. Newsletters will be regularly produced by the Network on the Future of the Environment and Development in the Mediterranean, from 2018. Thematic booklets will capitalize the products of the network, from 2019. The two types of products will be communicated to a wide audience, keeping the Focal Points informed on developments in MED 2050. The chapters of the final report will be delivered progressively, with a chapter on trends in 2019, a chapter on visions in 2020, and a chapter on transition trajectories and investments in 2021. The final report will be discussed with the PAM system authorities in 2021 with a view to being presented to COP 22 of the Barcelona Convention in 2021. An indicative timetable is developed in more detail in Annex 2.

62. Given the geopolitical situation and the growing concern for the environment in the Mediterranean region, the next two decades will be decisive for solving environmental problems, seizing emerging opportunities and paving the way for a prosperous and peaceful Mediterranean region in which residents enjoy a high quality of life and sustainable development falls within the carrying capacity of healthy ecosystems. MED 2050, as a strategic and participatory foresight exercise, will shed light on these critical steps.

Annex 1: Proposed components for MED 2050 exercise



Annex 2: Provisional timetable for MED 2050 exercise

| | Timing | Consultation & transfer MAP System | Dialogue Workshops or webinars ¹ | Synergies, Mobilization of resources | Network | Publication Communication | Dissemination Technical assistance | | | |
|-----------|--------|------------------------------------|---|---|--|---|------------------------------------|-----------------|----------------|--|
| Realized | 2016 | T3 | | | Key actors identification | | | | | |
| | | T4 | | Foresight workshop | | Benchmark Map of existing programs and products | Workshop report | | | |
| | | T1 | | | | | | | | |
| | | T2 | Plan Bleu Focal Points | | | | | | | |
| | 2017 | T3 | MCS D | | | | Benchmark report | | | |
| | | T4 | COP 20 | Foresight workshop | | | Workshop report | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Potential | 2018 | T1 | Consultation - Invitation to participate | | Mobilization of resources, technical, institutional and financial partnerships | Network establishment | | | | |
| | | T2 | | Foresight workshop | | | | | | |
| | | T3 | | Foresight workshop | | | | | | |
| | | T4 | | Launch of the network | | | | | | |
| | 2019 | T1 | | | | | | | | |
| | | T2 | Plan Bleu Focal Points | | | | | Workshop report | | |
| | | T3 | MCS D | | | | | | | |
| | | T4 | COP 21 | Workshop or webinar Trends & disruptions (module 1) | | | | | Trends chapter | |
| | 2020 | T1 | Consultation on future scenarios | Workshop or webinar Sea, marine ecosystems (module 2) | | | | | | |
| | | T2 | | | | | | | | |
| | | T3 | | Subregional workshops Towards a shared vision (module 2) | | | | | | |
| | | T4 | | | | | | | | |
| | 2021 | T1 | | Workshop or webinar Co-develop framing scenarios (module 3) | | | | | | |
| | | T2 | Plan Bleu Focal Points | | | | | | | |
| | | T3 | MCS D | | | | | | | |
| | | T4 | COP 22 | Workshop or webinar Co-construct transition pathways (module 4) | | | | | Report | Dissemination through MAP network, institutional partners, media, general public |
| | | | | | | Capacity building, technical assistance (if funded) | | | | |

¹Subject to corresponding financial mobilization.

Annex 3: Establishment of MED 2050 network

| | Composition | Role | Frequency of meetings | Intervention stage |
|-----------------------------|---|---|---|---|
| Plan Bleu team | MED 2050 team and MAP partners | MED 2050 animation | Regular | All along the projet |
| Scientific committee | About 15 people Legitimacy Representativity | Scientific validation MED 2050 « moral and scientific guarantee » | Twice (upstream of the project, and downstream for validation of work / results) | Upstream of module 1 At the end of module 4 |
| Foresight group | 15-20 people mobilized (Minimum 1/3 with foresight experience and 2/3 of thematic experts and other stakeholders, including PB/RAC and other RAC. Representativity | Production role | Regular | All along the project Above all : module 3 // framing scenarios |
| Specific workshops | « Decentralization » of the foresight group (<i>Composition : experts more representative groups → depending of financial means</i>) | Bring out contrasting visions Start from countries situations A focus workshop on the sea, if financial means | Workshops 2/3 days per sub-region or 2 times 2/3 days (Or contrasting visions of national experts, depending on the means) | Module 2 // contrasting visions |
| Expanded network | Informal network. Representativity (regarding countries, organisms) | Exchange of information / consultation / resource center / ability to post documents / strategic watch | Active continuously via the platform (to be revitalized on the new website) One-off consultations | One-off consultations // module 2 All along the project and after (strategic watch // newsletters // thematic booklets // exchange of information) |

Annex 4: Modules, participation strategy and methodological elements

| | Modules | Who participates in this step? | Methodological elements |
|----------------------|--|--|--|
| 1 | Trends – disruptions – weak signals | RED 2019 team MedECC network Post-doc, in partnership with LabexMed. Plan Bleu team and MAP Foresight group Expanded network | Post-doctorate: trend analysis in connection with the PB/RAC team, and more qualitative work on disruptions and weak signals Foresight group: first meeting in November 2019 to work in groups on this module |
| 2 | Contrasting visions | Workgroups in specific workshops (decentralized foresight groups) <i>(ou just experts if lack of financial means)</i> Plan Bleu team and MAP partners Expanded network , especially by using a relay through partner network heads // one-off consultations | Hypothesis 1: remote consultation of national and local experts and decision makers to bring their visions of the future of the basin Hypothesis 2: National and Subregional Workshops Whatever the hypothesis adopted: wider consultation relayed by network heads, and, depending on the budget, specialized workshop on sea foresight |
| 3 | Framing scenarios | Foresight group Plan Bleu team and MAP partners Expanded network | The foresight group articulates results of modules 1 and 2 in order to take into account the differences of points of view and aspirations, to build several contrasted scenarios and to retain the most realistic and desirable one |
| 4 | Transition paths | Foresight group with increased participation of actors (institutional, associations, civil society, donors) Plan Bleu team and MAP partners Expanded network | The foresight group and the actors participating in this module prioritize obstacles, favorable factors, opportunities and risks to be overcome in order to reach the shared objectives, and to build concrete and realistic paths of transition (including investments and critical measures) |
| All along the projet | Dissemination of results and implementation | Plan Bleu team and MAP partners Foresight Group Expanded network | Key role of MED 2050 web platform throughout the project: place of exchange, sharing of practices and experiences, information mutualization etc. One of the potential final outputs: methodological guide on setting up a participatory prospective exercise as MED 2050 |

Annex 5: Synergies with other MAP initiatives and activities

