









# Pyrenean Climatic Change Strategy: a strategy for cooperation on climate action.

1er. DRAFT (Outcome of elaboration phase 1: inquiry and co-creation)

Document available for the Participation Process (2nd and 3rd elaboration phase)

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### 1. CONTEXT FOR THE DEVELOPMENT OF THE NEW PYRENEES CLIMATE STRATEGY

From the Pyrenean Climate Change Observatory -CTP and within the framework of the project ADAPYR, this important federating action is being carried out, the definition of a climate strategy for the Pyrenees as a whole, which aims to maintain and give continuity to the Network generated around the OPCC and define new lines for the future that will enable the challenges of climate change in the Pyrenees to be successfully tackled.

Given the scale of the work to be carried out, and bearing in mind the desire to integrate the entire Pyrenean territory and to actively involve its partners, this action has been organised in different stages.

This document is the result of the first phase of elaboration and co-design, which allowed the definition of a first outline, and subsequently the drafting of this document in consensus with the OPCC Reference Committee.

The first phase of the strategy's conception was developed between October and December 2020 through 5 virtual working meetings open to the ADAPYR group of partners and the OPCC Advisory Committee, as well as to other references who regularly cooperate with the CTP. It was supported by FSVA's technical assistance in facilitation work (strategic consultancy on European issues).

As a result of these 5 working meetings, a first outline of the document was drawn up. During the first quarter of 2021, its validation has been addressed, as well as the drafting of the first draft through a system of consultations with the Technical Committee of OPCC Referents. This document thus integrates:

- The results of the analysis of existing strategies at the transnational, regional and CTP levels.
- The contributions arising from the debates of the 5 meetings-workshops of the first design phase of the PSCC.
- The considerations of the OPCC Referents on the skeleton and the first draft, through their validation by written consultation.

With this document, the **2nd phase of consultation and public participation** begins, consisting of a participation plan and the contracting of facilitation services. This phase foresees the development of different territorial and sectoral workshops as well as the elaboration of an Operational Plan for the PSCC that will form the basis for an Integrated LIFE project application that will develop it.

The aim of the participatory process is to complete the Pyrenean Climate Change Strategy on the basis of a consultation process and subsequently a concertation/deliberative process that will help to define its operational implementation plan within the framework of the OPCC ADAPYR project and the LIFE AT PYRENEES CC project within the period between May and December 2021.











The target should achieve the approval of the Pyrenean Climate Change Strategy at the highest political level of the CTP in autumn 2021 and have a first complete version of the Operational Implementation Plan before 31 December 2021.

The structure of this consolidated document contains the following sections:

- The title of the strategy: final wording
- The vision: final drafting
- The **founding principles**: final drafting
- The cross-cutting Strategic Objectives (SOs): final drafting
- A systemic approach: approach to be taken final drafting
- **Action points**: their endorsement as a working basis for the second phase of strategy design (workshops)
- **Progress on the organisational governance of the strategy**: identification of actors and roles within the strategy

We thank you in advance for your interest in participating in this process and for your willingness to enrich the outcome with your contributions.

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# 2. FRAMEWORK FOR THE NEW PYRENEES CLIMATE STRATEGY

From the Pyrenean Climate Change Observatory in the Pyrenees Working Community:

- We work for a common space (the Pyrenees), governed by 7 administrations, which we consider to be a single bioregion particularly vulnerable to climate change, and which requires a special effort to increase its resilience.
- We want to continue cooperating on Climate Change<sup>3</sup>, aware of the challenge posed by the
  coordination between 7 territories, located on both sides of the mountain range, and also aware of
  the complexity of the issue we are addressing.

Two approaches identify us and give us our own entity: the territorial mountain area and the cross-border nature; giving special added value to the activity of the OPCC-CTP (Andorra, Spain and France)

This Pyrenean Climate Change Strategy should focus on cross-border action to adapt to climate change, integrating and enhancing possible positive synergies and complementarity with mitigation actions. It will be a driving force for:

- > Strengthen and accelerate climate action through cooperation;
- > Consolidate the learning community and the generation of knowledge; and
- > Making the Pyrenean massif and its specificity visible at European and world level;

As discussions progressed during the first phase, the need to develop an PSCC in partnership with the territories and to involve the various socio-economic actors concerned (including both elected officials and citizens) was confirmed. The need to work towards a strategy capable of strengthening the role of the OPCC and its territorial referents was also confirmed.

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<sup>&</sup>lt;sup>3</sup> The Pyrenean Climate Change Observatory has been working in cooperation on climate change issues for the whole of the CTP territories for 10 years.











## 3. STRUCTURE OF THE PYRENEAN CLIMATE CHANGE STRATEGY

#### Vision to 2050

The 2050 time horizon implicit in the vision takes as a reference the European objectives linked to the Green Deal for Europe, as well as the notion of climate neutrality. This vision aligned with these objectives should facilitate European recognition of the strategy. A more operational 2030 intermediate horizon should also complement this vision.

By 2050, the Pyrenees will be resilient to the effects of climate change.



### **Development of the vision to 2050**

This vision will mean that we will have:

- > Pyrenees with a diversity of environmental resources, shared and sustainably managed to ensure their conservation and protection.
- > Pyrenees whose economy has made a successful ecological, energy and climate transition.
- A Pyrenees whose spatial planning and prevention systems protect the population and its health from climatic risks and phenomena, guaranteeing the multifunctionality of the territory with the enhancement of environmental services.
- > Pyrenees that act as carbon sinks, thus contributing to the climate neutrality of the regions that depend on them.











### **Founding Principles**

In order to put in place a strategy to achieve the ambitions set out in the vision, it is essential to establish the basic principles on which the strategy will be guided, and on which all actors must collectively contribute to it.

#### 1. CROSS-BORDER COOPERATION

Promote interaction between Pyrenean regions by identifying common priority adaptation measures and harmonising them with regional and national efforts.

#### 2. KNOWLEDGE GENERATION AND TRANSFER

Promote interdisciplinary and inter-territorial knowledge, identification of experiences and good practices, their valorisation and transfer to all the territories and sectors of the Pyrenees.

#### 3. INNOVATIVE ACTION

Explore, promote and engage in innovative approaches, both technological, managerial and governance, that foster the connection between science, policy, practice and society;

#### 4. SYNERGIC ACTION WITH THE CTP PYRENEAN STRATEGY

Promote synergies with sectors and with mitigation actions and the integration of climate change in the actions of other areas and sectors of the Pyrenean Strategy (EPi) (PS);

#### 5. EUROPEAN AND INTERNATIONAL VISIBILITY

Contribute to the European and international visibility of the climatic specificity of mountain areas and the cross-border nature of the Pyrenees.

### **Strategic Objectives**

The STRATEGIC OBJECTIVES define an ambition that completes the vision. They should describe the expected results or final achievements that the Pyrenean Climate Change Strategy aims to achieve.

**SO1**: To develop knowledge about climate in the Pyrenees and its variability.

**SO2:** To sustainably manage biodiversity and natural resources in the face of the impacts of climate change by enhancing the associated ecosystem services;

**SO3:** Contribute to a just ecological and climatic transition, accompanying the Pyrenean population and economy in the process;

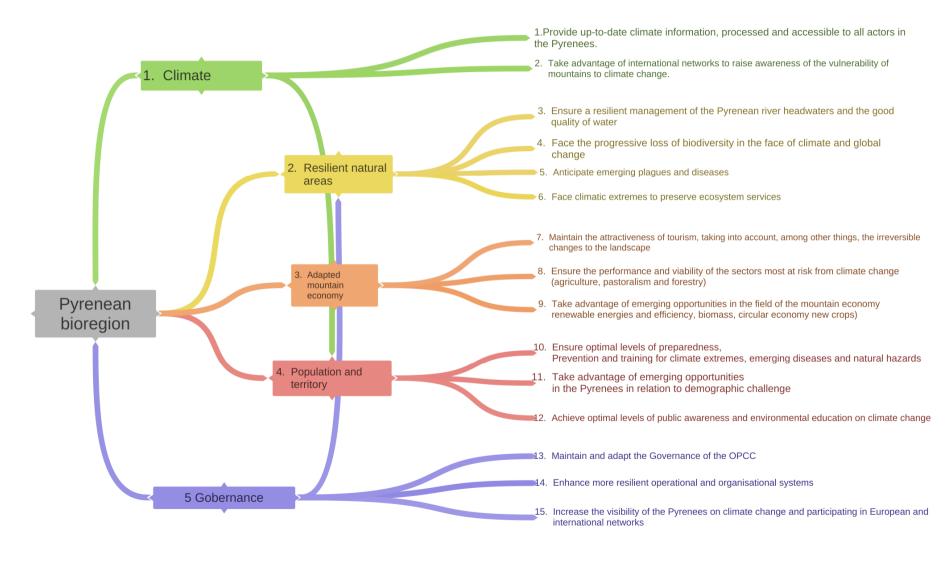
**SO4:** Promote land management that is consistent with the risks arising from climate change, ensuring territorial balance.

**SO5:** Contribute to a governance based on knowledge, cooperation and coordination by promoting awareness, communication and environmental education.





# Towards a systemic approach to the PSCC







The new systemic viewpoint provides a more inclusive approach that allows efforts to focus on those key elements of the Pyrenees that are specific to the Pyrenean bioregion. Two cross-cutting systems have also been defined which are key to the characterisation of the Pyrenean strategy: Climate and Governance. These two systems are in turn directly linked to the 3 core systems: Natural Areas, Mountain Economy, Population and Territory. The challenges and the details of the lines of action are organised around these 5 systems (2 cross-cutting and 3 core).

#### **Action Tracks**

The **ACTION TRACKS** or proposals for action are aimed at addressing each of the 14 Challenges of the Strategy. Although each action track will be aimed at addressing mainly one **Strategic Objective** and one **Challenge**, the complementarity between challenges is indicated and although the Founding Principles have a cross-cutting character, the linkage of each action track to the most relevant Principle has also been identified. These interconnections are explicitly specified in each proposed action track, in the last three columns of each challenge.

The proposed action tracks arise from the review, selection (and combination in some cases) of the sectoral adaptation measures identified in the OPCC 2018 report and from the set of Pyrenean specificities linked to each system worked on during the group dynamics of the meeting 24th February 2021. During the 2nd phase of the strategy's participation, the specific content and scope of each action track will be worked on through cross-border participatory workshops with the different stakeholders.





| System     | Challenge  | Action tracks  | Strategic<br>Objestives  | Challenges  | Founding<br>Principles |         |
|------------|--|--|--|-------------|------------------------|---------|
|            |  | Promote innovation and transfer climate science knowledge.   | SO1  | D1,D2,D3,D4 | 1,2 and 3              |         |
|            | 1. Provide up-to-<br>date climate<br>information,<br>processed and   | <ol> <li>Progressively update, compile and make available the<br/>databases of interest (public or private) that can improve<br/>the study of climate in the Pyrenees and make them<br/>available to the territories.</li> </ol> | SO1  | D1,AII      | 2                      |         |
| 1. CLIMATE | accessible to all actors in the Pyrenees.  2. Take advantage of international networks to raise awareness of the | actors in the Pyrenees.  | Ensure the progressive updating of the calculation of the<br>main indicators of climate change at mountain range<br>level (observed and predicted) | SO1         | D1,All                 | 1 and 2 |
|            |  | Give continuity of cross-border systems for monitoring and measuring climate variability, introducing technological innovations  | SO1  | D1,All      | 1,2 and 3              |         |
|            |  | Participate in national and international networks of climate change in mountain zones.  | SO5  | D2          | 5 and 1                |         |
|            | vulnerability of mountains to climate change.  | Promote synergies and collaborations with European organisms and cross-border organizations in other mountain areas.   | SO5  | D2          | 1 and 5                |         |





| System           | Challenge   | Action tracks  | Strategic<br>Objestives | Challenges      | Founding<br>Principles |
|------------------|---|--|-------------------------|-----------------|------------------------|
|                  |   | <ol> <li>Assess water resources availability based on climate<br/>change scenarios and demand modelling</li> </ol>   | SO 1, SO 3              | D3,D1,D2,       | 1 and 2                |
|                  | 3.Ensure a resilient management of the Pyrenean river headwaters and the good quality of water  4. Face the progressive loss of biodiversity in the face of climate and global change | Reorient studies of the impact of climate change on<br>the hydrological cycle in the Pyrenees to consider<br>the entire mountain range.  | SO 1, SO 3              | D3,D1,          | 1,2 and<br>3           |
| 2. RESILIENT     |   | <ol> <li>Promote water supply and demand management<br/>measures in consideration of the implications of climate<br/>change, in the most vulnerable sectors (including<br/>emergency management).</li> </ol> | 303                     | D3,D1,          | 1                      |
| NATURAL<br>AREAS |   | <ol> <li>Addressing the challenges of climate change in<br/>relation to water resources in the Pyrenees by<br/>adopting an integrated vision of territorial<br/>management,</li> </ol>                       | SO 3                    | D3,D1,<br>D6,D8 | 2 and 3                |
|                  |   | 11. Promote adaptive landscape and forest<br>management, as well as active management of the<br>system of protected natural areas that integrates<br>climate change adaptation criteria.                     | SO 2, SO4               | D4,D3,D6,<br>D7 | 1,2,3<br>and 4         |
|                  |   | 12. Improve knowledge of the current and expected impacts of climate change on particularly sensitive Pyrenean habitats (permafrost, forests, lakes, meadows, peatlands and high mountain species).).        | SO 1, SO 2,<br>SO 4     | D4,D3,D6        | 1 and 2                |





|                                     | 13. Protect the most vulnerable biodiversity and<br>species through the conservation, improvement<br>and restoration of their habitats, harmonising<br>transboundary adaptation criteria in conservation<br>and restoration policies (ecological corridors and<br>interconnectivity, eco-diversity, recovery plans for<br>endangered species, etc.) | SO 2, SO 4          | D4,D3,D6,          | 1,2,and<br>4  |
|-------------------------------------|---|---------------------|--------------------|---------------|
|                                     | Enhance adaptation in protected area management instruments by developing more operational integrated management mechanisms to ensure progressive inter-connectivity due to the effects of climate change.  | SO 2, SO 4          | D4,D3,D6,<br>D7    | 1,3 and<br>4  |
|                                     | Enhance soil conservation management to limit the impacts of climate change on this resource, and also in favour of its role as a carbon sink.  | SO 2, SO 4          | D4,D2,D3,<br>D6,D7 | 2 and 4       |
| 5. Anticipate                       | Encourage cross-border networks for observing the effects of climate change on biodiversity, as well as promote their dynamisation and long-term maintenance, especially in high mountains.   | SO 2, SO 4,<br>SO 5 | D5, D4, D6         | 1, 2 and<br>5 |
| emerging<br>plagues and<br>diseases | 17. Strengthen and redirect the current monitoring and control plans for vulnerable Pyrenean species, prevention, control and management plans for invasive exotic species and plagues in consideration of the potential effects induced by climate change.   | SO 2, SO 3          | D5,D10             | 1 and 3       |





|  | 18. Promote studies that combine the climatic factors   | SO 1               | D1,D5    | 2 and 4        |
|--|---|--------------------|----------|----------------|
|  | and anthropogenic risks.  19. Enhancing improvements in cross-border alert systems for emerging plagues and diseases.   | SO 1,<br>SO2, SO 5 | D2,D1,D5 | 1,2,4<br>and 5 |
|  | 20. Promote the multifunctionality of natural ecosystems as regulators of biological and geological processes, restoring vulnerable species and habitats to increase their resilience to climate extremes   | 50 2, 50 4         | D6,D4    | 1 and 3        |
| 6. Face climatic extremes to preserve ecosystem services | 21. Promote the adaptive management of Pyrenean soils in favour of their multifunctionality, greater resilience and the ecosystem services they provide (carbon sink, water retention, control of soil loss, biodiversity matrix).  | SO 2, SO 4         | D6,D4    | 1,2 and<br>4   |
|  | 22. Favour the creation of a catalogue of Pyrenean areas particularly sensitive to climate change with emblematic and unique, vulnerable ecosystems with endangered or endemic species whose distribution and characteristics make their movement or capacity to react difficult. | SO 2, SO 4         | D6,D4    | 1,2 and<br>3   |





| System                      | Challenge   | Action tracks   | Strategic<br>Objestives | Challenges       | Founding<br>Principles |
|-----------------------------|---|---|-------------------------|------------------|------------------------|
|                             | 7. Maintain the attractiveness of tourism, taking into account, among other things, the irreversible changes to the landscape | 23. Promote a sustainable and out of seaso tourism offer, integrating the concept of circularity (especially in the ski sector).  | SO 3                    | D7,<br>D9,D11    | 1,3 and<br>4           |
|                             | 8. Ensure the performance and   | 24. Promote socio-economic activities based on the valorisation of ecosystems and species (ecotourism, forest management, harvesting) ensuring coherence with biodiversity and soil conservation guidelines.          | SO 3                    | D8,<br>D9,D11    | 1 and 3                |
| 3. ADAPTED MOUNTAIN ECONOMY | viability of the sectors most at risk from climate change (agriculture, pastoralism and forestry)                             | 25. Develop knowledge on the assessment of Natural hazards and impacts of climate change on economic activities (seasonal tourism, forestry, agro-pastoralism and energy production) and infrastructure and services. | SO 1, SO 3              | D8,D1,D9,D<br>11 | 1,2 and<br>4           |
|                             |   | 26. Encourage the maintenance of traditional agricultural, pastoral and forestry activities in mountain areas, ensuring their role in sustainable management and increased resilience                                 | SO 3                    | D8,<br>D9,D11    | 1 and 3                |
|                             |   | 27. Promote sustainable forest management that enhance its role as a carbon sink, reinforcing its economic viability throughout the forest massif.  | SO 3                    | D8,<br>D9,D11    | 1,3 and<br>4           |
|                             |   | 28. Strengthen water management systems in the agricultural sector, better adapted to climatic challenges and taking into account the mountain range as a whole.  | SO 3                    | D8,<br>D9,D11    | 1,2 and<br>3           |





| 9. Take advantage of emerging opportunities in the field of the mountain economy renewable energies and efficiency, biomass, | 29. Promote actions to boost renewable energies compatible with adaptation, which have positive synergies with mitigation, also boosting the generation of green jobs (development of energy communities and self-consumption, local smart grids, valorisation of wood by-products). | SO 3 | D9,D11  | 3 and 4 |
|--|--|------|---------|---------|
| circular economy<br>new crops)   | 30. Promote actions and generate elements of dissemination, environmental education and awareness-raising at Pyrenean level in relation to the Pyrenean Climate Change Strategy and aimed at a wide target audience.   | SO 5 | D14,D10 | 2       |





| System                      | Challenge   | Action tracks  | Strategic<br>Objestives | Challenges            | Founding<br>Principles |
|-----------------------------|---|--|-------------------------|-----------------------|------------------------|
|                             | 10. Ensure optimal levels of preparedness,                                  | 31. Reducing the vulnerability of Pyrenean infrastructures to the increased intensity of extreme hydrological, geological and climatic events, ensuring the integrity of people (transport, road, residential and energy infrastructures, e.g. adaptive management of planning instruments and tools, management and maintenance of the road network). E.g.: adaptive management of instruments and tools for planning, management and maintenance of the road network). | SO E4                   | D10                   | 1 and 3                |
|                             | Prevention and training for climate extremes, emerging                      | 32. Enhance the implementation of nature-based solutions to reduce the impact of natural and climate risks.  | SO 3, SO<br>E4          | D10,D6                | 2 and 3                |
|                             | diseases and natural hazards  | <ol> <li>Innovating cross-border fire-fighting through<br/>silvopastoral, pasture and livestock<br/>management.</li> </ol>   | SO 2, SO 3              | D10,D9,<br>D11        | 1 and 3                |
| 4. POPULATION And TERRITORY |   | 34. Enhance cross-border surveillance systems or<br>initiatives for emerging livestock and crop<br>pathogens and diseases with a special focus on<br>human zoonoses.   | SO 1, SO 2,<br>SO 3     | D10,<br>D1,D9,D<br>11 | 1,3 and 4              |
|                             |   | 35. Promote cross-border awareness-raising,<br>environmental education and vocational training<br>on climate change, involving all sectors of the<br>population.   | SO 3                    | D10,D14               | 1,2 and 4              |
|                             | 11.Take advantage of  | 36. Promote uses of the Pyrenean territory<br>compatible with conservation and with the<br>capacity to cushion the effects of climate<br>change.   | SO 4                    | D11                   | 1 and 4                |
|                             | emerging opportunities in the Pyrenees in relation to demographic challenge | <ol> <li>Promoting a Pyrenean urban structure resilient to climate change.</li> </ol>  | SO 4                    | D11,D7,<br>D9         | 4                      |
|                             |   | 38. Deepen the potential weaknesses and strengths<br>of the current energy system in the face of<br>climate challenges.  | SO 1                    | D4,D3                 | 2 and 4                |
|                             | ŭ   | <ol> <li>Promote the energy regeneration of urban and rural<br/>environments, generating new job opportunities.</li> </ol>   | SO 3                    | D11,D9                | 3 and 4                |





| 12. Achieve optimal levels of public awareness and environmental education on climate change | 40. Promote and maintain citizen science initiatives<br>to involve the public in research programmes<br>and awareness-raising actions. | SO 5 | D1, D3,<br>D4, D5,<br>D6 | 1,2 and 3 |
|--|--|------|--------------------------|-----------|
|--|--|------|--------------------------|-----------|





| System           | Challenge   | Action tracks  | Strategic<br>Objestives | Challenges | Founding<br>Principles |
|------------------|---|--|-------------------------|------------|------------------------|
|                  | 13. Maintain and adapt the Governance of the  | <ol> <li>Ensuring horizontal coordination between<br/>regional climate policies in the Pyrenees.</li> </ol>  | SO5                     | D12        | 5 and 1                |
|                  | OPCC  | 42. Ensure vertical coordination with national and<br>European climate policies, influencing the<br>implementation of European climate policies<br>in mountain areas.                                    | SO 5                    | D12        | 5 and 1                |
| 5.<br>GOBERNANCE | 14. Enhance more resilient operational and organisational systems                           | 43. dynamise and promote dialogue with sectorial actors in the territory: forestry structures, business and citizen associations, CC networks and scientific committees, network of natural parks, etc). | SO 5                    | D13,D12    | 1, and 4               |
|                  |   | 44. Promote the Pact of Mayors for Climate and<br>Energy initiative in the Pyrenees and other<br>local sustainable development and climate<br>networks.  | SO 5                    | D13, D12   | 1 and 4                |
|                  | 15. Increase the visibility of the Pyrenees on climate change and participating in European | 45. Communicate the activity of the observatory<br>and the progress of the projects within the<br>territory of the CTP, so that the population<br>and agents are aware of them.                          | SO E4                   | D15        | 1 and 4                |
|                  | and international networks  | 46. Actively participate in international networks and projects with other mountain territories.   | SO 4                    | D15        | 1,4 and 5              |
|                  |   | <ol> <li>Establish relations of mutual interest with<br/>European actors and institutions related to our<br/>actions.</li> </ol>   | SO 4                    | D15        | 5                      |
|                  |   | 48. Linking the OPCC website with the websites of regional entities, administrations, networks and international initiatives in order to make valuable information visible                               | SO E4                   | D15        | 2 and 5                |





# 4. ORGANISATIONAL GOVERNANCE FOR THE IMPLEMENTATION OF THE STRATEGY

Such a strategy based on transnationality and intersectoriality has an intrinsic organisational complexity that can only be approached from the perspective of social innovation and the promotion of dynamisation and multilevel connections in themselves.

The internal governance implicit in the development of this strategy will be further developed once the contents of this strategy are more detailed. For the time being, the typology of the agents involved has been broken down according to the different FUNCTIONS

| FUNCTIONS      | ACTOR INVOLVED                           |  |
|----------------|--|--|
| Implementation | Local and communal administrations;      |  |
| -              | Companies and business associations      |  |
|                | Universities and scientific centres      |  |
|                | State Administration                     |  |
|                | Manager/ Managers of park bodies         |  |
|                | Regional Administration Universities and |  |
|                | local and national scientific centres    |  |
|                | Associations                             |  |

| D i ti                      | 1 1 0   |
|-----------------------------|---|
| Dynamization                | Local Gov.  |
| And                         | Civil Society Organisation  |
| Communication               | Business Actv. OPCC-CTP   |
| Funding                     | Territories CTP Local Government State Administration Private activities and companies Universities and Research Centres European funds |
| Follow-                     | CTP-OPCC  |
| up,Evaluation<br>and Review | Universities and Research Centres Sectoral organisations State Adm. European Environment Agency   |
| Decision                    | Executive committee-Territories CTP   |





In order to achieve a good implementation and coordination of the strategy with the involvement of the different agents, it is necessary to define bodies that make it possible to establish these connections and facilitate joint work. Based on the previous experiences of the OPCC, and considering the orientations gathered in the workshops and bilateral meetings with the territories, the following bodies for participation and management of the strategy are proposed:

| OPCC Technical team<br>Technical Committee CC Referents  | Dynamisation Communication Coordination CC Territories CTP Transfer of results to the CTP territories. Monitoring of the strategy Vertical coordination of the strategy (national and European strategies). |
|--|---|
| Executive committee CTP  | Decision on Technical Committee proposals and coordination Territories CTP  |
| OPCC Advisory Committee Selection of scientists, and representatives of relevant socio- economic sectors in the Pyrenees | Its mission is to provide strategic guidance to the Technical and Executive Committees by answering queries, and collaborating in the following areas In the orientation of different actions               |





### **Technical committee of the OPCC:**













