



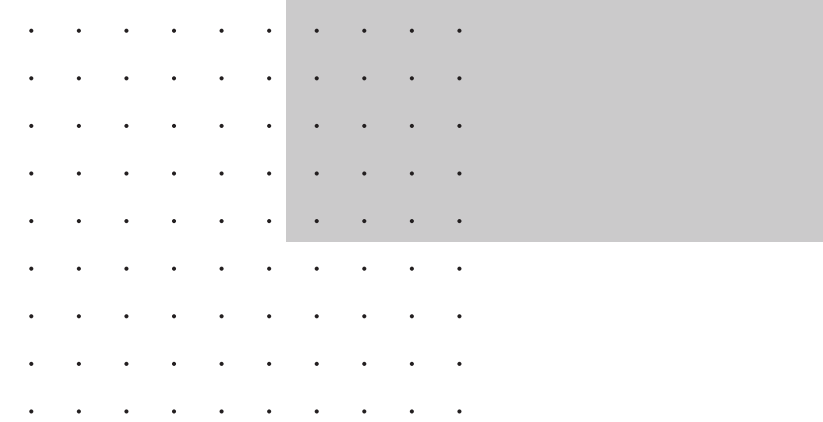
PROYECT

POCTEFA OPCC ADAPYR



Results report

Capitalisation, observation, transfer and appropriation of strategies to adapt to climate change in the Pyrenees in a context of cross-border cooperation



PREFACE

On behalf of the Working Community of the Pyrenees, CTP, and on behalf of the Presidency currently held by the Government of the Basque Country, I am pleased to present this summary document which compiles the main results of these two and a half years of work in cross-border territorial cooperation between Spain, France and Andorra, in the field of climate change.

The Pyrenean Climate Change Observatory is one of our most emblematic initiatives, and in recent years, the OPCC has taken on special meaning and strength. The climate emergency situation declared in our territories and worldwide makes this initiative a fundamental tool for providing a more effective response to the climate challenge, based on inter-territorial collaboration and cooperation.

It should be recalled that the publication of the OPCC 2018 Report “Climate change in the Pyrenees: impacts, vulnerabilities and adaptation” was an important milestone in the path of the Pyrenean Observatory. This report compiled the scientific evidence to date, and had a major media impact. But it also meant an important support for the definition of public policies for adaptation to climate change in the Pyrenees. All of this has allowed the ADAPYR-OPCC project to be built and developed, a third generation project focused on capitalising and consolidating climate governance based on a multi-sector and multi-level network.

The OPCC-ADAPYR, a project led by the Pyrenean Climate Change Observatory, is based on a solid partnership of 12 partner organisations and 30 associates from both sides of the mountain range. The OPCC ADAPYR has been 65% financed with ERDF funds through the INTERREG POCTEFA 14-20 programme. This project has continuously promoted the work of a wide network of agents whose cooperative work has made it possible to feed the Reference Platform with climatic information on the Pyrenees. This federating project has also laid the foundations for a new qualitative and quantitative leap forward thanks to the new Pyrenean Climate Change Strategy for the Pyrenees - EPICC and its Operational Plan 2030, whose objective is to achieve a Pyrenees that is resilient to climate change and carbon neutral by 2050.

We hope that this summary document will be of interest to you. You will find in it countless results on a wide range of topics (climatology, flora, forests, water resources, high mountain lakes and peat bogs, etc.) linked to Observation, Capitalisation and Transfer, three key words for the OPCC. All this work would not have been possible without the involvement of the members of the Executive Committee of the CTP, the CTP Management and the technical team, the territorial referents of the OPCC, the members of the Advisory Council of the OPCC, the partner organisations and the funders. To all of them, my heartfelt thanks.

Mikel Antón

Director of European Affairs of the Government of the Basque Country





THE PYRENEAN CLIMATE CHANGE OBSERVATORY

The OPCC is a cross-border territorial cooperation initiative focused on climate change in the Pyrenean Working Community (CTP), launched in 2010 under the presidency of Midi-Pyrénées. The members of the CTP and therefore the OPCC are the Principality of Andorra and the regional governments of Nouvelle-Aquitaine, Aragon, Catalonia, the Basque Country, Navarre and Occitanie.

GOVERNANCE

Since its inception, the OPCC has worked together with the main research centres on both sides of the mountain range and has worked as a bridge between the scientific community, the socioeconomic sectors and public policies. Thanks to the OPCC ADAPYR project, a cross-border working dynamic has been consolidated with key actors in the region and new tools and protocols for monitoring the impacts of climate change have been generated; furthermore, the first Cross-Border and mountain Strategy has been set up to fight climate change (Pyrenees Climate Change Strategy [EPiCC]).

As part of a communication strategy, the Observatory has achieved and maintains strong visibility and is progressively more well known in the region, across Europe and even internationally.



Figure 1: one of the posters of the series of 5 themed webinars under the title JUEVES PIRENAICOS (PYRENEES THURSDAYS). More than 400 people participated in this cycle of seminars on climate change in the Pyrenees.

The operation of the OPCC is structured around a Technical Committee, a Coordination Committee and an Advisory Committee. The technical committee is made up of the different experts specialising in climate change across the 7 member regions of the CTP and serves to guide and set technical priorities. The coordinating committee consists of members of the OPCC ADAPYR project and it has been responsible for coordinating and overseeing the correct performance of the project's actions. The Advisory Committee is made up of scientists and representatives of the most representative socioeconomic sectors in the massif. Its mission is to ensure scientific rigour and strategically orient the work of the OPCC. Thanks to the recently approved Pyrenees Climate Change Strategy (EPiCC) within the context of the OPCC ADAPYR project, this governance structure has been reinforced, adding the strategy Monitoring Board. Thanks to this Monitoring Board, the OPCC will include the existing collaborating networks and structures in its governance network (social and environmental institutions, local institutions, volunteer institutions, diffuse and emerging economic sectors and stakeholders in citizen science) thus ensuring more open and continued participation.



Figure 2: OPCC governance structure, expanded with the EPiCC Monitoring Board

OPCC ADAPYR: CAPITALISATION AND STRATEGIC VISION

OBJECTIVES

The main goal of the OPCC ADAPYR objective is to prepare the region for it to better adaptation to climate change and increase its resilience to the challenges it poses. To this end, it has focused on three main lines of action:

01 OBSERVATION

The **OBSERVATION** of data on climate change efforts in the key areas of the Pyrenees: water resources, cryosphere, fauna, flora, woodland and natural risks.

02 CAPITALISATION

The **CAPITALISATION** of available information (projects programmed previously) to reflect it in tools adapted to the specific demands of the different agents in the region.

03 TRANSFER

The **TRANSFER** of knowledge generated in the region, its local agents and the population in general



To this end, the project has achieved a series of specific objectives to:

- Consolidate the collaborative observation and research work on both sides of the Pyrenees, defining the basic climate change impact indicators.
- Prepare the first Pyrenees Climate Change Strategy, in harmony with the other territorial strategies in this field.
- Transfer knowledge through participative processes that make it possible to identify the information needs and generate key information for the main socioeconomic sectors in the Pyrenees (farming and grazing, tourism, energy, health).
- Search for formulas of collaboration and possible sources of financing to maintain climate change observation networks in the Pyrenees in the long term.
- Communicate and support the decision-making process of the different areas involved.
- Greater visibility for the Pyrenees, the specificities and needs of this region in relation to climate change and globally.

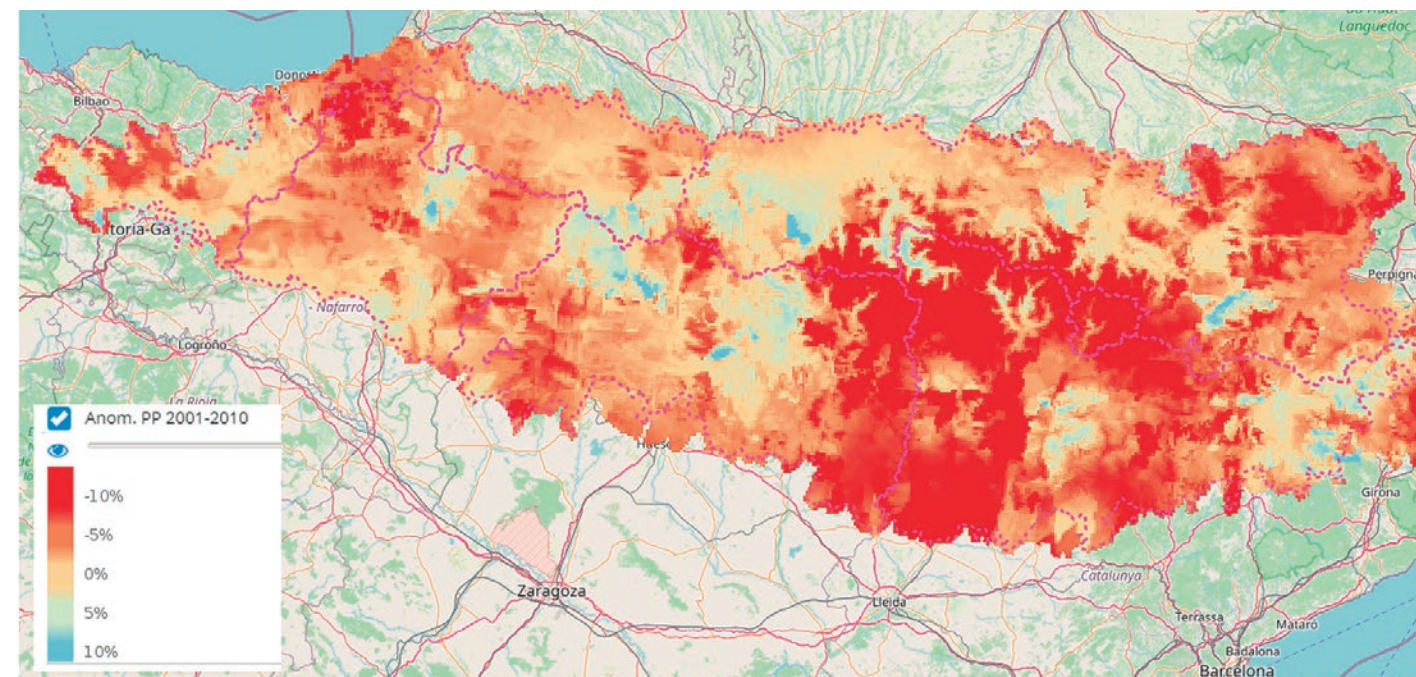


Figure 3: annual average rainfall anomaly for the 2001-2010 period (in % variation) compared to the 1961-1990 period. This indicator has been calculated using homogenised data for the entire Pyrenees region. Source: OPCC geoportal based on capitalised data as part of the CLIMPY project <https://www.opcc-ctp.org/es/geoportal>

CAPITALISATION AND NETWORKING

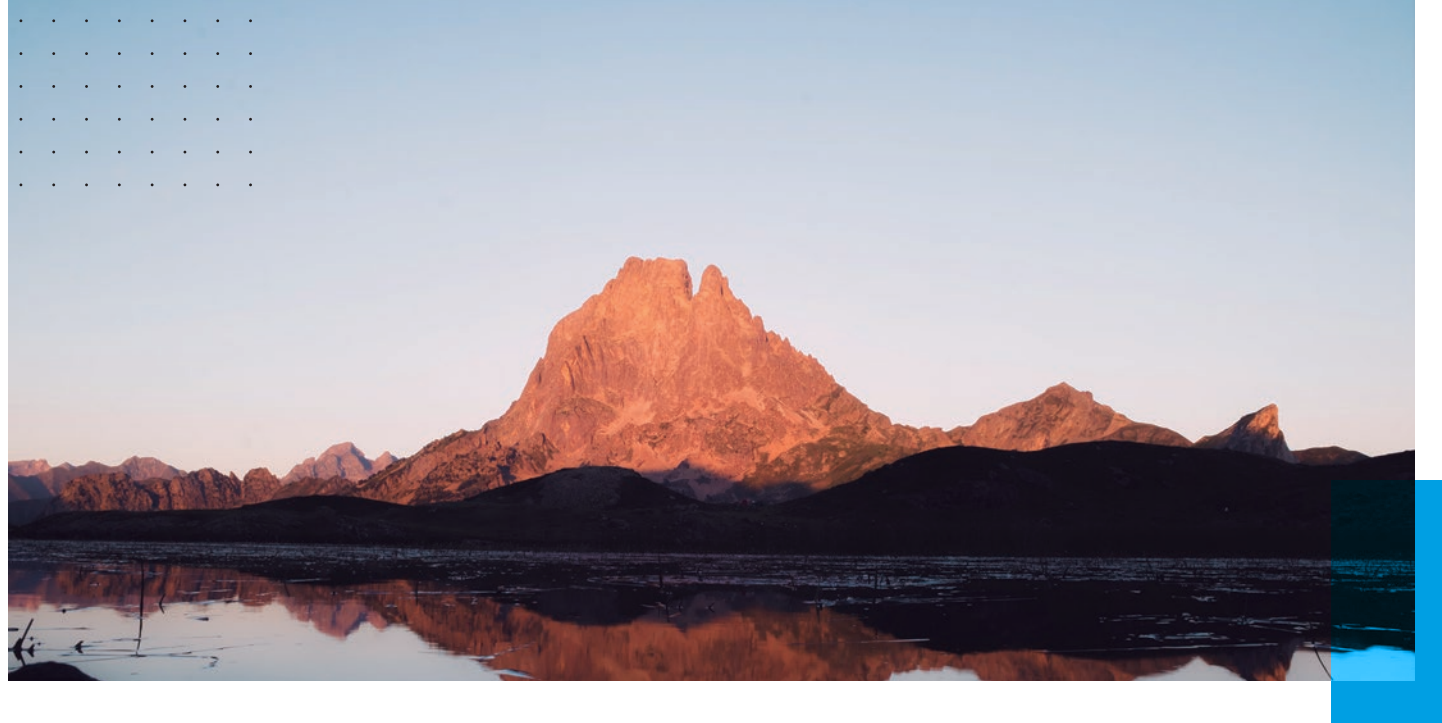
OPCC ADAPYR is the unifying project in the Pyrenees in terms of observation, capitalisation and knowledge transfer and best practices in the adaptation to climate change.

The success of the project can be traced to the partnership consisting of 12 institutions, including members and associates of all pillar 5b projects organised in the 1st and 2nd editions of POCTEFA 14-20, thus encompassing the entire Pyrenees region.

Thanks to this broad network of scientific partners, ADAPYR has managed to capitalize the results of the main projects focussed on studying the impacts of climate change in sectors and key topics in the Pyrenees.

Networking has made it possible to once again develop shared methodologies, employ the same standardised, cross-border database, capitalise results and continue with strategic lines of work and issues.

This strategic vision reaches its zenith in the development and official approval of the Pyrenees Climate Change Strategy (EPiCC), but also in other fundamental milestone such as the conclusion of agreements for the exchange of data between meteorological agencies operating in the region, the search for funding for the perpetuation of key observation on the impact of climate change and the main consultations made with key agents in the region about the information needs to accompany the adaptation process of the most vulnerable socioeconomic sectors.



MILESTONES OF THE OPCC ADAPYR PROJECT

Thanks to ADAPYR, the OPCC has managed to make progress achieving its strategic objectives, thus continuing with and strengthening the most advantageous aspects of this cross-border climate change initiative. The ADAPYR project has made it possible for the OPCC to continue enhancing and boosting scientific consensus to define the basic climate change impact indicators in the Pyrenees (biodiversity, woodland, glaciers, lakes and peatland, water resources and natural risks). One of the fundamental achievements of the project was the preparation, as part of a wide-reaching participatory process with more than 500 agents in the region, of the first Pyrenees Climate Change Strategy. This strategy, which forms part of Pillar 1 of the Pyrenees Strategy of the Pyrenees Working Community (EPi), stands out on account of being the first cross-border strategy of its kind in Europe and as it is in line with the other regional strategies in relation to climate change.

Other new developments as part of this project were the preparation of a yearly climate bulletin for the Pyrenees, the design and implementation of environmental education and awareness raising, in addition to the development of new functions and content for the OPCC geoportal. Finally, actions have been undertaken to transfer knowledge to socioeconomic sectors in the form of participatory processes, to identify information need and thus generate specific, useful information for the main socioeconomic sectors in the Pyrenees (farming and grazing, tourism, energy and health). The OPCC ADAPYR project has set itself the target of searching for formulas of collaboration with competent organisations and possible sources of funding to maintain climate change observations in the Pyrenees in the long term.

To continue with all these initiatives and achievements of the ADAPYR project, the CTP has requested, with the support and involvement of more than 50 institutions in the region, an integrated LIFE project. This project, the goal of which is to implement the Operating Plan of the EPiCC, defines the OPCC's roadmap towards a Pyrenees that is resilient to climate change by 2050.



ACTIONS AND RESULTS

OBSERVATION

Summary and objectives

The OBSERVATION action responds to the specific objective of improving knowledge of climate change in the Pyrenees: climate fundamentals, weaknesses, impacts and risks in natural and human systems.

The specific goals of this action have been to identify the real needs of agents in the Pyrenees in relation to information on climate change. This has made it possible to select significant indicators in relation to the different areas studied (climate, water resources, cryosphere, fauna, flora, woodland and natural risks) generated by other projects, to capitalise them and make them accessible on the OPCC information portal and geoportal.

ADAPYR has also enhanced the search for formulas to perpetuate observations in collaboration with the competent authorities for each topic to ensure minimum monitoring of long-term climate change indicators in the mountain range.

Along this line, ADAPYR has entered into bilateral agreements to share climate change data in the CTP region with AEMET, Euskalmet, Météo France, Servei Meteorològic de Catalunya and Servei Meteorològic d'Andorra. In addition to representing a milestone in climate action in the Pyrenees, these agreements make it possible to keep the current cross-border, standardised climate database up to date, for the study of climate change in the Pyrenees.

On the other hand, this action has helped to maintain basic monitoring of indicators on the impact of climate change on phenology (life cycle of woodland species, flora and fauna), vulnerable ecosystems (lakes, peatland, glaciers) and natural resources (water resources) by monitoring the selected indicators and with support from citizen science actions like Phénoclim.

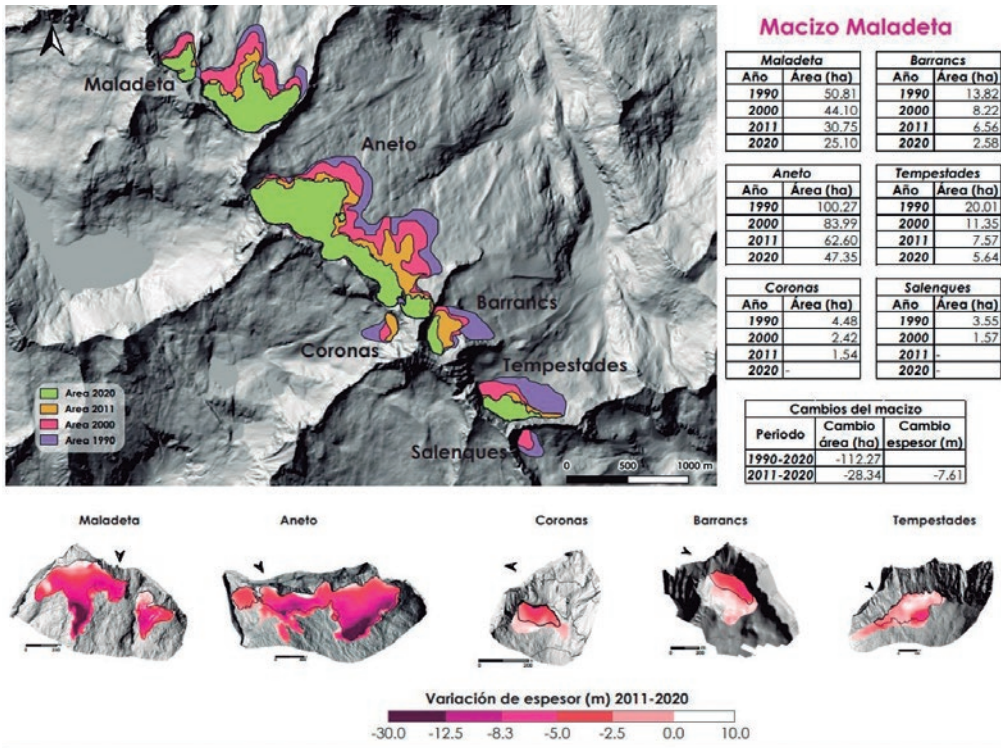


Figure 4: datasheet for the evolution of glaciers (change in surface area and thickness) in the Maladeta massif between 1990 and 2020. Source: datasheet generated by the IPE CSIC and available from the OPCC data portal, glacier <https://www.opcc-ctp.org/es/geoportal>

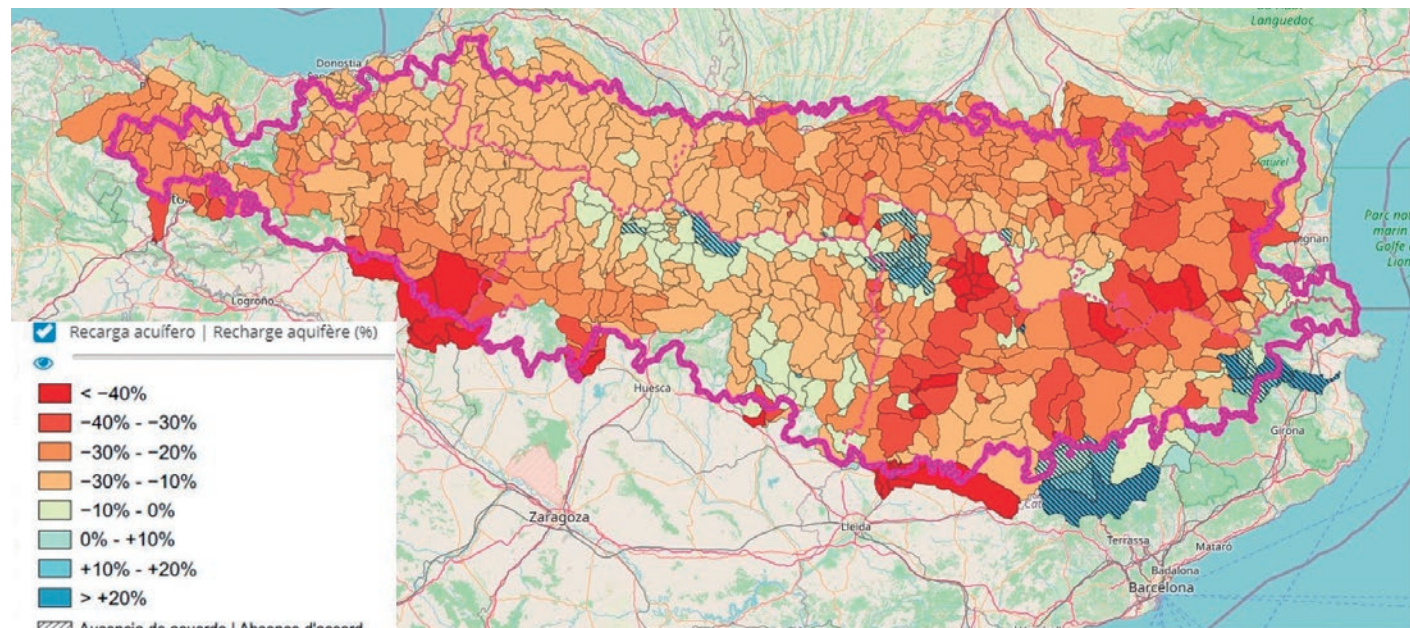


Figure 5: average annual percentage change in replenishment of the aquifer for the 2041-2070 horizon compared to 1981-2010, under scenario RCP 8.5: average of the nine GCM/RCM models considered (6 SWAT simulations + 3 SASER simulations). Dashes indicate low level of agreement between the simulations (less than 80% of simulations agree in direction of change). Source: OPCC geoportal based on data from the PYRAGUA project. <https://www.opcc-ctp.org/es/geoportal>

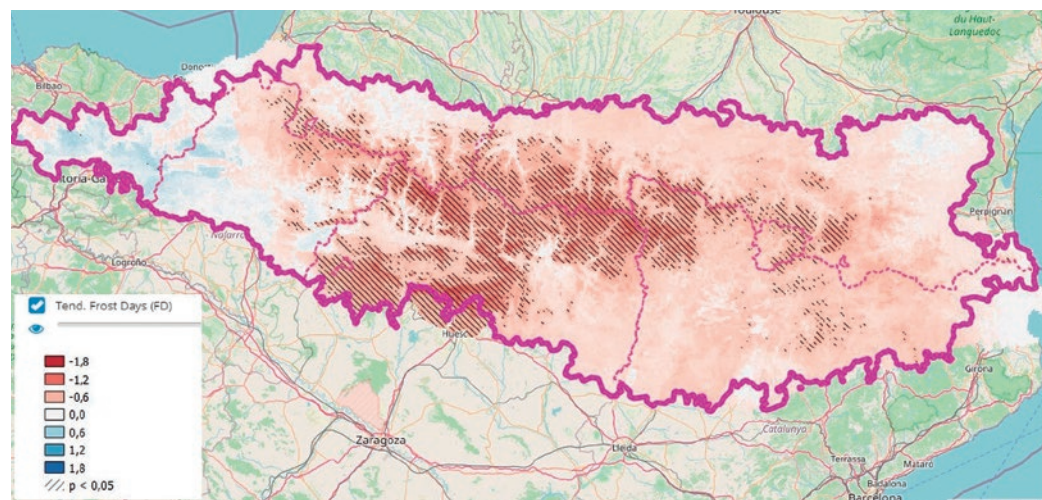


Figure 6: trend on iced over days (number of iced over days per year) in the Pyrenees (from 1960 to 2020). Source: OPCC geoportal based on data as part of the CLIMPY project. <https://www.opcc-ctp.org/es/geoportal>

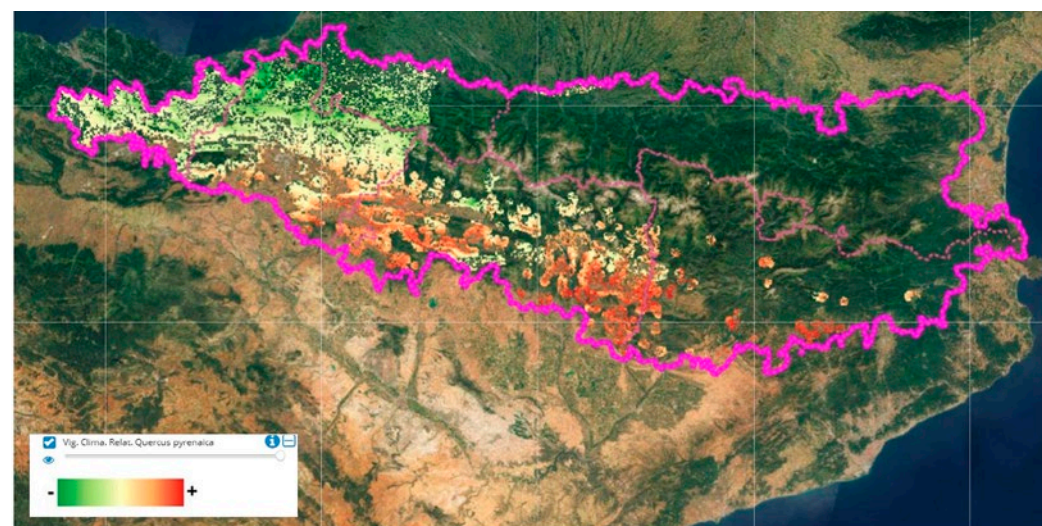


Figure 7: relative climate oversight map for Quercus pyrenaica. Consult the relative climate oversight map for the 13 most common species in Pyrenees woodland at the OPCC geoportal, woodland section. <https://www.opcc-ctp.org/es/contenido/ciencia-ciudadana-phenoclim>

RESULTS

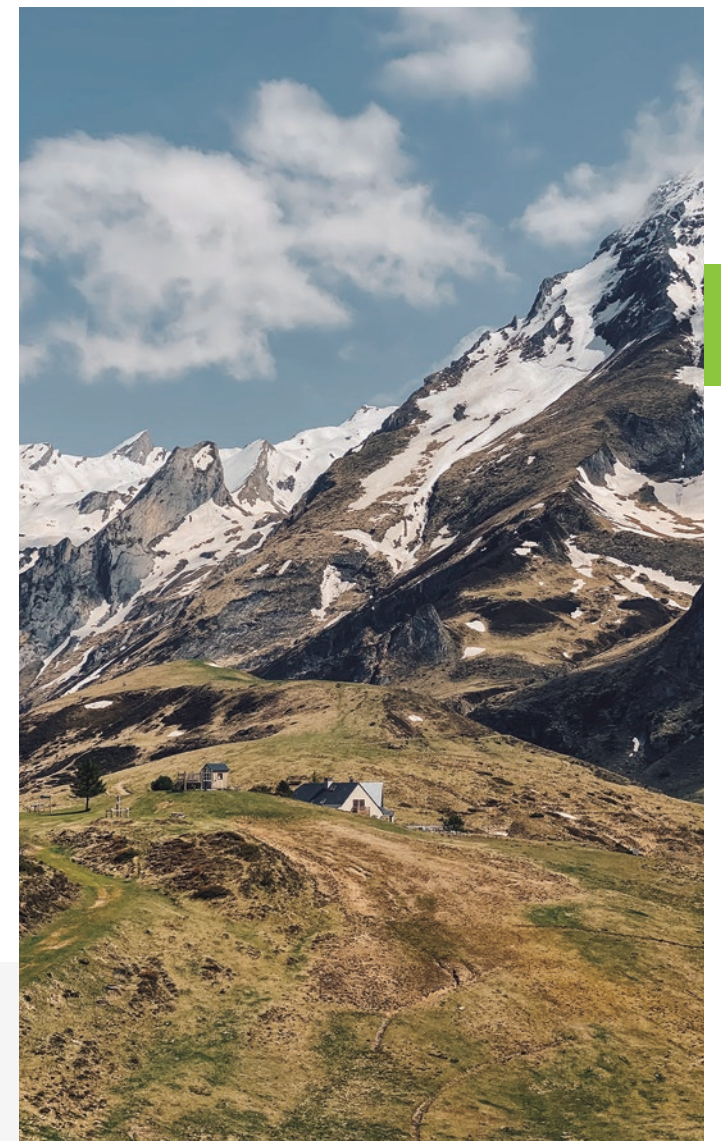
- Mapping of actors and technical queries on information needs;
- Formulas for ensuring the monitoring of long-term climate change impact indicators (interviews, surveys and research into the perpetuation of a basic network of indicators and conclusion of collaboration agreements);
- Valuation of the results of the OPCC2 project, projects associated with the 1st and 2nd edition and other Pillar 2 projects scheduled for the 3rd edition of POCTEFA, with more than 250 cartographic layers generated, downloadable from the geoportal.
- Indicator monitoring reports on the impact of climate change on sensitive high mountain ecosystems, such as lakes, peatland and glaciers;
- Revitalisation and monitoring of the Phénoclim and REPLIM science network



Figure 8: plant life monitoring protocol and species identification pheno-circle. Both instruments support the Phénoclim Pyrenees initiative. <https://www.opcc-ctp.org/es/contenido/ciencia-ciudadana-phenoclim>

CONCLUSIONS

Adaptation to climate change requires reliable scientific information covering an extensive time line on the impact of this complex phenomenon. To this end, it is necessary to maintain long-term OBSERVATION systems, as they are essential in providing key information for generating and monitoring climate change indicators. The perpetuation of these cross-border observation networks and initiatives, beyond the life time of the projects that led to their creation, is a challenge that forms part of the basis of the OPCC's strategy.



CAPITALISATION

SUMMARY AND OBJECTIVES

The capitalisation action responds to the specific objective of promoting innovation through specific climate change actions, from the capitalisation of results and successful projects. The aim of this action has been to reflect the knowledge acquired on climate change in operational tools that facilitate the decision-making of regions and their socioeconomic agents to promote climate governance and increase resilience. To achieve this objective, the 7 regions of the CTP have developed and approved the first Pyrenees Strategy for Adapting to Climate Change (EPiCC).

Following an extensive participatory process lasting more than 2 years, in which around 400 people have participated, the EPiCC has been consolidated as the cross-border roadmap that brings together the seven Pyrenees regions around five main areas of cooperation in the fight against climate change. This document has established the strategic framework for the development of the long-term OPCC action plan, starting with the development of a 2023-2030 Operating Plan.

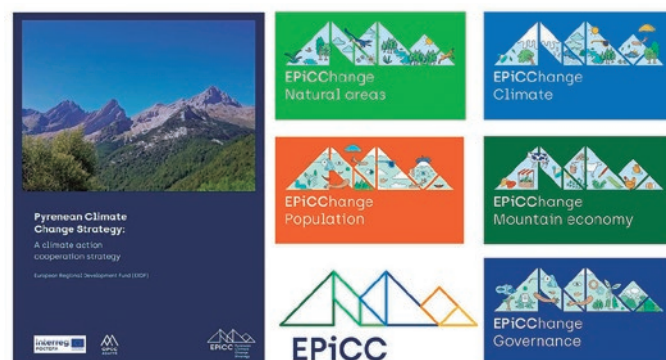


Figure 9: EPiCC. The first Climate change adaptation strategy in a cross-border mountain bioregion. Download the document here: <https://www.opcc-ctp.org/es/proyecto/epicc>

Furthermore, ADAPYR has also developed support and consultation tools on adaptation for decision makers in relation to the different key topics in the Pyrenees.

Specifically, within the context of the project, guidelines have been published for adapting to climate change in the resilient management of water resources, guidelines for adaptive woodland management, guidelines for the management and conservation of Pyrenees fauna and flora and guidelines to include the adaptation to climate change in the local planning of Pyrenees towns and cities. As a complementary tool, a search engine of recommendations has been created, providing residents with the main key sectoral recommendations generated by the guidelines, in a digital and interactive format that will be updated over time.

The CAPITALISATION action has also made it possible to develop the OPCC's portal of best practices in adapting to climate change, including 32 new best practices with the corresponding self-explanatory audiovisual capsules.

Aware that putting theory into practice is no mean feat, the aim of this portal is to provide a window for successful adaptation, innovative and replicable adaptation experiences in all regions in the Pyrenees mountain range. The best practices on the portal include the OPCC ADAPYR project, which has supported the ECOVARS approach to ecologically restore soils and plant life by offering consultancy in field work and educational actions.



Figure 10: guidelines for adaptation and online tool of recommendations. Consult the OPCC's adaptation recommendations tool and download the guidelines here: <https://www.opcc-ctp.org/es/proyecto/opcc-adapyr>

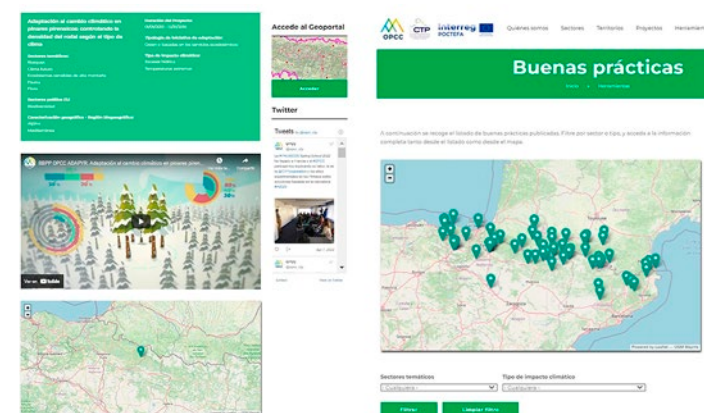
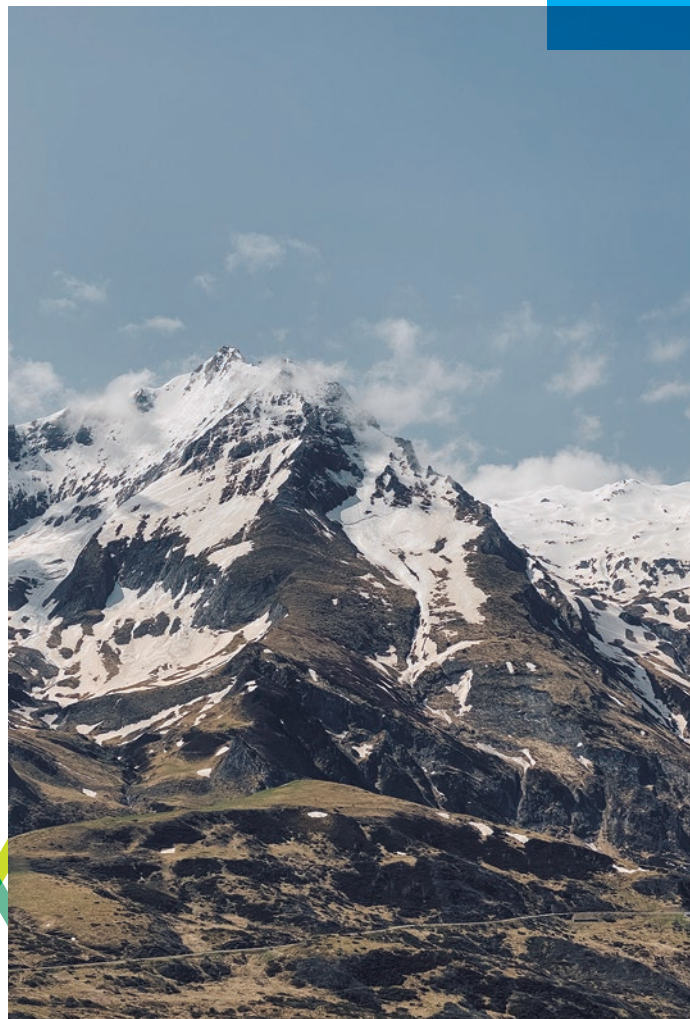


Figure 11: OPCC ADAPYR tool of best adaptation practices. Consult the ADAPYR best adaptation practices and videos in the OPCC website tool section: <https://www.opcc-ctp.org/es/buenas-practica>



Figure 12: the before and after of ecological restoration via revegetation with local species of an embankment affected by landslides using the ECOVARS approach, in Gazost, Midi-Pyrénées. Source: CBNPMP



Results

- Co-creation of the first Pyrenees Climate Change Strategy (EPiCC) based on existing regional policies;
- Guidelines for local climate change planning in the Pyrenees: climate governance from a local to regional scale;
- Guidelines for the integration of adapting to climate change in water management plans;
- Guidelines for preparing adaptive woodland management plans;
- Guidelines for including the adaptation to climate change in Plans for conserving vulnerable flora and fauna;
- Online tool of adaptation recommendations;
- Expanding and assessing best practices in relation to initiatives for adapting to climate change;
- Technical support (13) and experiments (5) on ecologically restoring soil and plant life (ECOVARS) and generating guidelines for multiplying plant species.

Conclusions

The approval of the EPiCC represented a milestone in cross-border cooperation for climate change at a European level. With more than 350 stakeholders involved in its creation, this document, in addition the first Operating Plan encompassing the 2023 2050 period, also prepared within the framework of the project, defines the OPCC's medium and long-term roadmap. This innovative initiative is the result of more than a decade of networking and cooperation that reflects the commitment of the 7 regions of the CTP in relation to cross-border and mountain climate action.

Furthermore, thanks to the scientific work performed as part of the themed projects organised by the OPCC, themed guidelines have been prepared for adaptation. These documents have been complemented by the adaptation recommendations search engine, which reflects the desire to provide synthetic, yet operational tools that make it possible to improve the adaptation process and the resilience of the sectors of the Pyrenees most vulnerable to climate change. Along these lines, it is also important to emphasize the successful adaptation initiatives in mountainous regions. Therefore, the ADAPYR project has represented one step more in the development of the OPCC best practice database, with new successful experiences, more specific actions and tangible, measurable and quantifiable results. This extension includes new themed areas such as energy, health, local climate governance and territorial organisation.

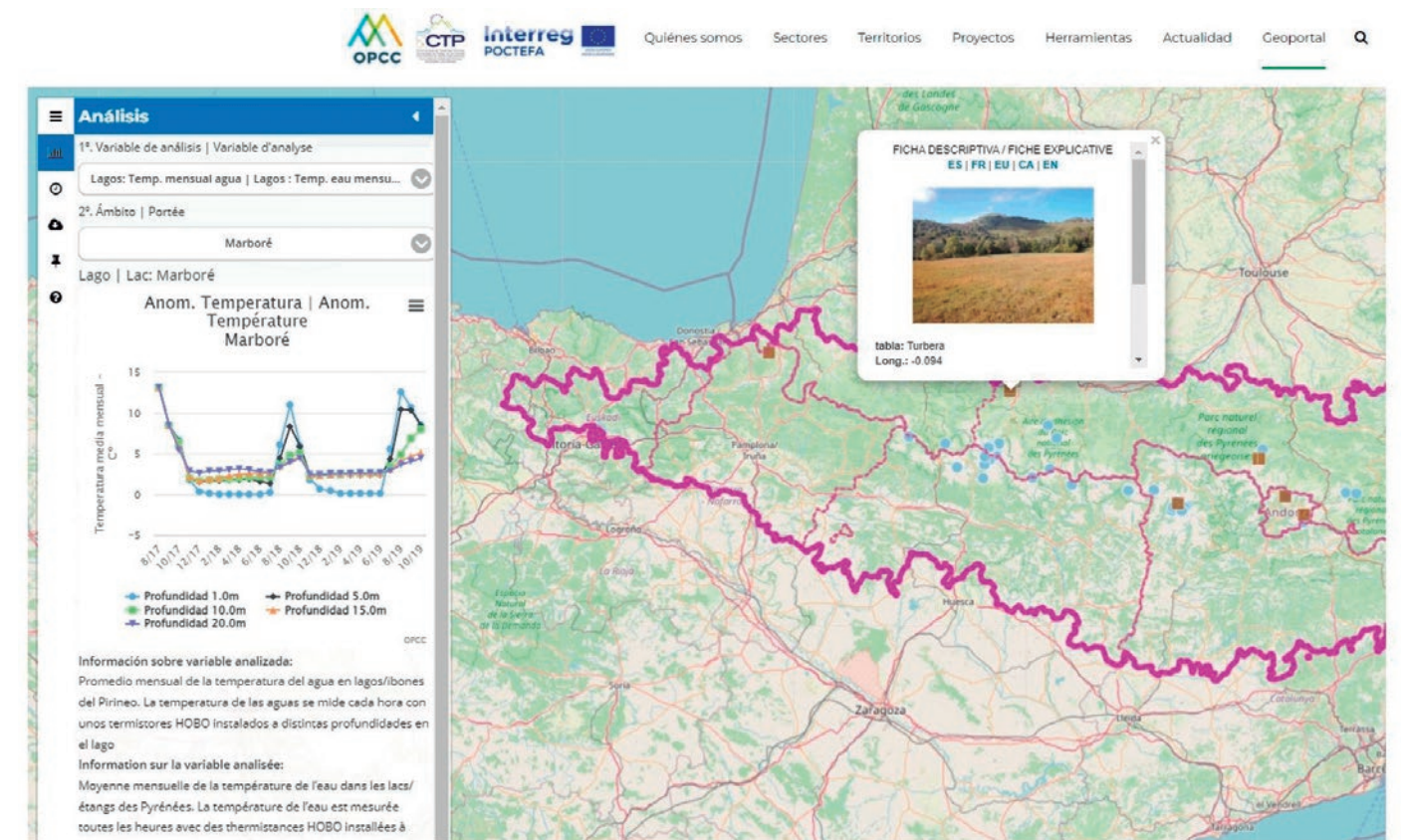


Figure 13 screenshot of the OPCC geoportal analysis tool, monthly mountain lakes temperature section. Each lake and bog in the network is associated with an explanatory file that can be downloaded in several languages. Source: OPCC geoportal based on data from the REPLIM project. <https://www.opcc-ctp.org/es/geoportal>

TRANSFER

Summary and objectives

The transfer action responds to the specific objective of ensuring the transfer of recommendations and results of OPCC work to sector stakeholders who serve as a link, making it possible to improve the adaptation and resilience of the Pyrenees. The specific objectives of this TRANSFER action were to 1) transfer the knowledge generated on climate change to the territory and its agents and 2) improve the perception and attitudes in relation to climate change by the population and local agents.

Amongst the key results of this action are the update and maintenance of the climate change information portal and geoportal with new functionalities, thanks to the progress made with the current OPCC2 project portal. Thanks to the maintenance efforts made, ADAPYR has managed to perpetuate key climate

change information generated in the Pyrenees beyond the duration of the projects, through the cartographic information geoportal and information portal in 5 languages. Specifically, more than 350 new layers of cartographic information have been included on the climate change impact indicators, in addition to the homogenised and updated climate data base for the entire cross-border Pyrenees region. Now more than ever, the OPCC's geoportal serves as a reference repository for climate data and sectoral indicators in relation to the impact of climate change on woodland, water resources, flora and now fauna, cryosphere and natural risks of the Pyrenees region.

Another of the milestones of the TRANSFER action is the annual newsletter on climate change data and its most significant impacts (BICCPIR).

The BICCPIR is undoubtedly a summarising exercise that makes it possible to reflect the main results of the OBSERVATION action, providing an annual snapshot of how climate change is affecting the Pyrenees region.

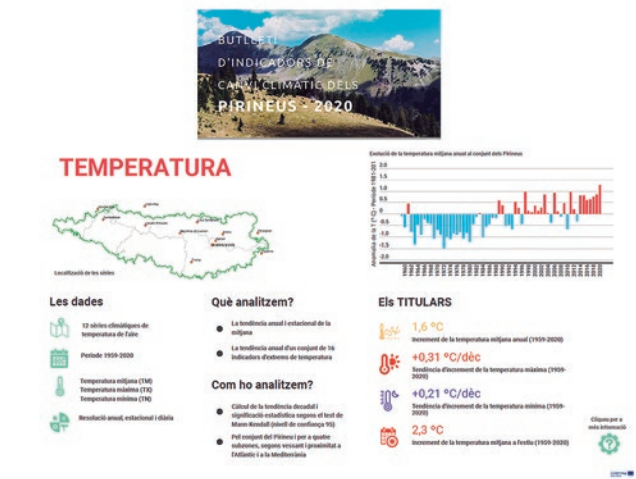
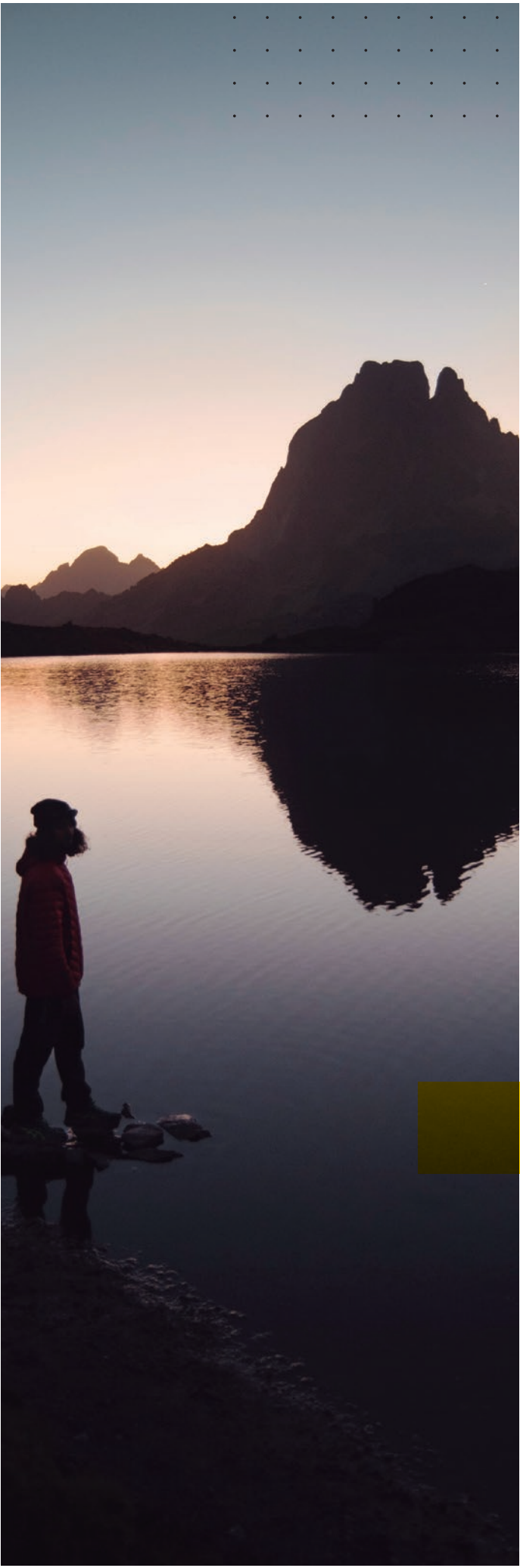


Figure 14: image of the first annual BICCPIR newsletter, developed thanks to the OPCC ADAPYR project <https://www.opcc-ctp.org/es/proyecto/opcc-adapyr>

Furthermore, aware of the importance of generating information that responds to the specific needs of socioeconomic sectors, the OPCC ADAPYR has looked into preparing significant indicators for key areas most sensitive to climate change in the mountain range (climate extremes, specific sectoral indexes, water resource availability indicators, agronomics, snow tourism and health).

These deliverables aim to improve the perception and attitudes of citizens in relation to climate change. To this end, support from innovative initiatives in awareness raising and environmental education aimed at the general population and with the active participation of the social entities of the OPCC ADAPYR has been necessary in networks, workshops, forums and professional work groups specialising in climate change.

Amongst these actions and results, worth particular mention is the development of an Operating Programme associated with the Pyrenees Environmental Education Strategy, which forms part of the EPiCC project, the Scape game on climate change or the immersive audiovisual production for the harnessing of the [OPCC 2018 Report](#), aimed at communicating all the key messages of the scientific community to all audiences.



	Deforestación (principalmente hayedos), huída y desaparición de fauna (lobos, corzos, ciervos, águila real y quaternarionanus).	A 7	Presencia de incendios forestales en espacios altos, lo que provoca la pérdida de muchos de ellos.	• Lluvia • EA: Oskar Andueza
Sequia // Paisaje	Pic de Midi d'Ossau 2.884 m - NOUVELE AQUITAINE	A A 7	El incremento de temperatura junto con los cambios en las precipitaciones haría disminuir notablemente los recursos hídricos en el Pirineo.	• C: Beto Váloro • EA: Jérôme Agniet
	Desecación de lago, transición hacia paisaje desértico.	A A 7		
Paisaje // Turismo	Pic de Midi de Rigorne 2.877 m - OCOTANE	A A 7	Una disminución de los grandes nevados disminuiría el dominio esquiable - posible pérdida del turismo asociado al ski.	• C: POCTEPA NIVOPYR • EA: Francesc Rodríguez
	Pérdida de nieve en prados - esquiadores parados o desapareciendo.	A A 7		
Glaciares // Paisaje	Pic du VIGNONNALE 3.298 m - OCOTANE	A A 7	A mediados de siglo los reservorios acuíferos de la cordillera podrían disminuir hasta un 20 %.	• C: Pierre Rame • EA: Helena Parga
	Reducción hasta eliminación de glaciares - 9 desecación de ríos y pérdida glacícola.	A A 7		
Aumento nivel mar // Inundaciones	Cataluña 23 m - CATALUÑA	A A 7	La frecuencia de lluvias torrenciales unido al incremento del nivel del mar puede provocar inundaciones en las zonas más bajas.	• C: Jordi Cullera • EA: Marcel Guinell
	Elevación del nivel del mar provocando inundaciones en la población.	A A 7		
Actividades económicas	Val de Molins Perifera Claror 3.900 m - ANDORRA	A A 7	La sequía, pérdida de pastos y el aumento de enfermedades y plagas puede conllevar la desaparición de la ganadería de montaña.	• C: Benjamin Komar / Clara Pineda • EA: Montse Brugué
	Cambio en la vegetación de los prados supralitorales hacia especies herbáceas menos productivas. Cambio en las especies ganaderas usuales en los prados supralitorales, de bovino a ovino. Colonización.	A A 7		

Figure 15: image of the first annual BICCPIR newsletter, developed thanks to the OPCC ADAPYR project

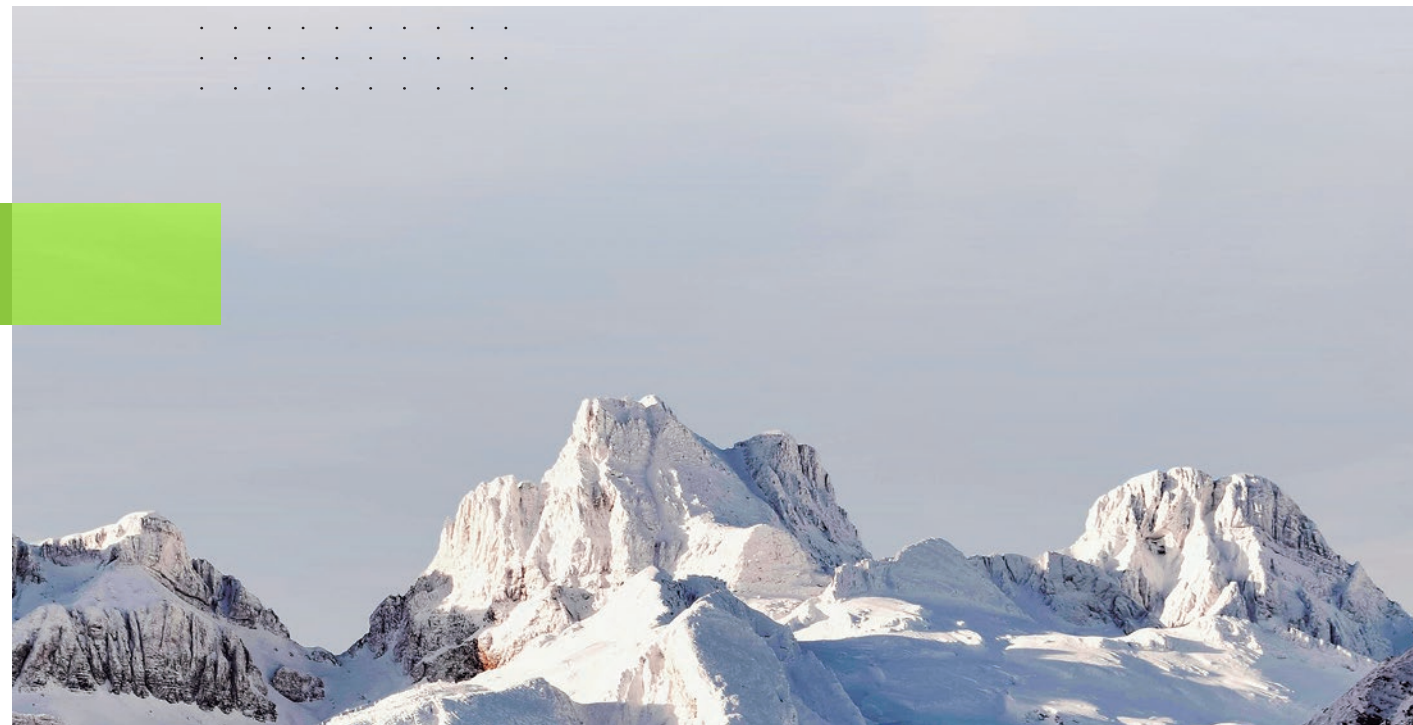


Results

- Evolution and maintenance of the OPCC information portal and geoportal;
- Preparation of the annual climate newsletter and the impacts of the climate on the Pyrenees (BICCPIR);
- Preparation of significant indicators for socioeconomic sectors (climate extremes, water resources, agronomy resources, snow tourism);
- Awareness raising activities and environmental education;
- Participation in networks, sector and regional workshops both in the Pyrenees and further afield.

Conclusions

It is important to produce relevant information and tools to improve the resilience of the mountain range, although more important making them available to society in an efficient and native manner. This is why it has been essential to identify the most suitable channels and mechanisms for transferring all the information generated by European projects, including once their life time is over. In this sense, the OPCC, through the ADAPYR project, is committed to continuing to develop and maintain its reference platform on climate change in the Pyrenees: updating the available information and adding new tools of reference. To this end, it is also essential to generate deliverables like the BICCPIR newsletter, which make it possible to synthetically provide a periodic snapshot of the impact of climate change on the Pyrenees region. Another of the keys in effectively relaying information is understanding how to adapt the messages and information to different target audiences, starting with the correct choice of the most appropriate channels. To this end, ADAPYR has committed to developing innovative products and activities in environmental education and awareness raising, or to directly consulting the socioeconomic sectors to identify needs and generate specific sectoral information.



COMMUNICATION

Summary and objectives

There is no point in generating strategic products and information for the adaptation if we are unable to keep the public informed about the achievements and progress made. The challenge of the ADAPYR project is, in essence, to achieve a shift in society's attitudes and behaviour (both citizens and those responsible for the territory and decision makers) to promote a healthy, resilient lifestyle.

The OPCC ADAPYR project has committed to an ambitious communication strategy supported by 4 specific objectives:

- 01 Inform the specialist public in relation to new climate change knowledge acquired through OPCC ADAPYR;
- 02 Keep the general public informed about the most relevant events in relation to the impact of climate change on the Pyrenees;
- 03 Make sure that the innovative products developed by the OPCC ADAPYR product reach the sectoral agents in the region;
- 04 Relay the results of the OPCC ADAPYR project in a way that they can be used as part of the decision making process and climate change actions of public and private agents in the region.



To achieve the first objective, a series of themed seminars known as **#JUEVESPIRENAICOS** (Pyrenees Thursdays) were organised.

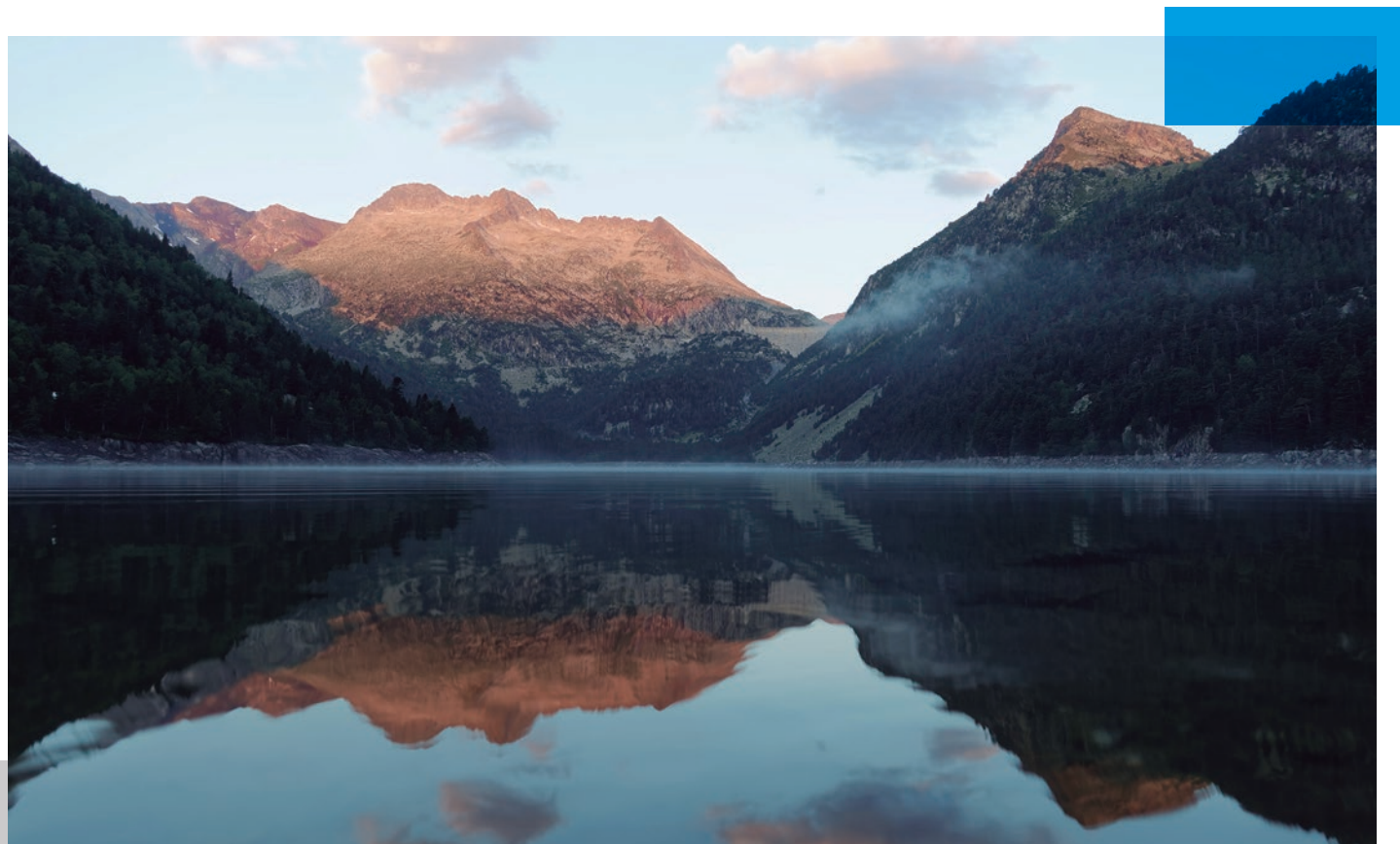
Over the course of 2 months, the OPCC ADAPYR project organised a series of webinars (5) starring experts from OPCC's scientific network to develop on the impact of climate change on water resources, sensitive ecosystems, the climate, flora and woodland.

During each of these workshops, a breakdown was provided of previous OPCC projects (CLIMPY, CANOPEE, REPLIM, FLORAPYR and PIRAGUA) and the preliminary results of ongoing ADAPYR studies presented, thus encouraging awareness raising and the transfer of knowledge to the different sectors. With more than 400 participants, this series of webinars represented a huge success in terms of participation at the peak of the COVID crisis.

Another ADAPYR initiative to achieve this objective was the production of 6 audiovisual shorts on climate change in the Pyrenees and the documentary entitled "Al paso del hielo", which undoubtedly provided a different perspective to help understand the recent evolution of the glaciers of the Pyrenees and the changes they have undergone. All this audiovisual material is available on the OPCC YouTube channel (<https://www.youtube.com/channel/UCWCLPJcTuZmxWlaQ3qz99g>).



Figure 16: programme of the #JUEVESPIRENAICOS themed webinars in which more than 400 people participated. View the videos of the workshops on the OPCC YouTube channel: <https://www.opcc-ctp.org/es/noticia/damos-bienvenida-al-2021-un-resumen-jueves-pirenaicos>



To achieve this second objective, ADAPYR has defined and implemented a communication plan that includes the periodic publication of news and a newsletter on the project's website (more than 40), to the definition of content and publications on social media sites including Twitter, Facebook and LinkedIn.

Furthermore, 12 press releases have been made and 2 press dossiers released about the project. Thanks to these actions, ADAPYR members have granted several interviews to the media, achieving an unprecedented media impact.

To achieve the third and fourth objective, **bilateral consultations have been made with the main representatives of the sectors most vulnerable to climate change.** Furthermore, there has been close collaboration with climate change experts in the 7 regions of the CTP (more than 10 Technical Committee meetings), thus ensuring fluid communication and the efficient transfer of the main results and tools generated thanks to the project. In this sense, worth particular mention is the organisation of the ECOVARS seminar on the ecological restoration of soil and plant life, in addition to a webinar on using the OPCC geoportal.

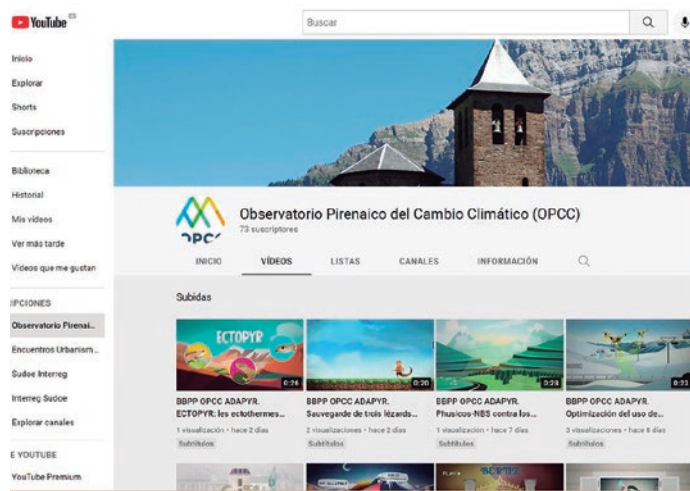


Figura 17: consulta los más de 50 vídeos ADAPYR en el canal youtube del OPCC <https://www.youtube.com/channel/UCWCLPJcTuZmxWlaQ3qz99g/videos?view=0&sort=dd&flow=grid>

Results

- Publication of news and periodic newsletters on the OPCC website;
- Publication of news and mentioned in communication media (newsletters and press dossier);
- Webinar on using the OPCC geoportal;
- ECOVARS webinar on ecologically restoring soil and plant life, 1 video and 1 technical file;
- “ADAPYR Responde 1” and “ADAPYR Responde 2” webinars (launch seminar);
- Themed seminars #JUEVESPIRENAICOS (5 webinars);
- Audiovisual shorts on climate change (6);
- Documentary “Al paso del hielo”.

Conclusions

The OPCC ADAPYR has been a unifying climate change project in the Pyrenees. It has made it possible to establish the bases for perpetuating the OPCC as an initiative of cooperation for climate change, beyond the duration of the project. Thanks to the maintenance of the basic observation network, the conclusion of collaboration agreements, the capitalisation of key information from the OPCC network and the approval of the EPiCC, the OPCC ADAPYR project has represented a turning point in climate change cooperation in the Pyrenees region.



Ecologie montagnarde et restauration écologique des milieux d'altitude
Ecología montañosa y restauración ecológica de los medios de altura
 Dans le cadre de sa mission d'appui technique et scientifique en restauration écologique, le Conservatoire botanique accompagne les acteurs du territoire dans leurs opérations de revégétalisation, notamment en zone de montagne au travers de la démarche Ecovars, aujourd'hui soutenue par l'Europe, l'État-Massif des Pyrénées, les régions Occitanie et Nouvelle-Aquitaine, inclus depuis 2018 dans les bonnes pratiques promues par l'Observatoire pyrénéen du changement climatique (OPCC). En el ámbito de su misión de apoyo técnico y científico a la restauración ecológica, el Conservatorio botánico asiste a los actores locales en sus operaciones de revegetación, especialmente en las zonas de montaña, a través de Ecovars, que cuenta con el apoyo de Europa, del Estado francés, de las regiones Occitanie y Nouvelle-Aquitaine, incluso desde 2018 en las buenas prácticas valorizadas por el Observatorio Pirenaico del Cambio Climático (OPCC).

Afin de partager les retours d'expérience suite à ces projets, le Conservatoire botanique vous invite à participer à un webinaire **jeudi 16 décembre 2021 de 15h à 17h**.
 Con el fin de compartir los testimonios de estos proyectos, el Conservatorio botánico le invita a participar en un webinar el **jueves 16 de diciembre de 2021 de las 15h a las 17h**.

Objectif : aborder la réalité technique et opérationnelle des chantiers de revégétalisation et de restauration écologique.
Objetivo : abordar la realidad técnica y operativa de la restauración ecológica.

Public cible : gestionnaires de domaines skiables et responsables de pistes, maîtres d'ouvrages publics et privés, bureaux d'étude en environnement, agences d'architecture et paysagistes.
Destinatarios : gestores de áreas de esquí y directores de pistas, contratistas públicos y privados, consultores medioambientales, agencias de diseño arquitectónico y paisajístico.



Programme / Programa :

15h00	La démarche Ecovars soutenue par l'OPCC. El enfoque de Ecovars apoyado por el OPCC.	G. Largier, directeur CBNPMP, J. Terré Mas, chargé de mission OPCC / G. Largier, director CBNPMP, J. Terré Mas, encargado de misión OPCC
15h15	Écologie montagnarde, phénomènes d'érosion et impacts des aménagements sur le milieu naturel. Ecología montañosa, fenómenos de erosión e impactos del desarrollo en el medio natural. Complejidad del juego d'acteurs, filière de végétaux d'origine locale, de la prescription à la mise en œuvre. Complejidad del conjunto de actores, sector del vegetal de origen local, desde la prescripción hasta la implementación	M. Delafoulhouze, chargé de restauration écologique CBNPMP / M. Delafoulhouze, encargado de restauración ecológica CBNPMP
15h40	Bassin de la rivière Claror : érosion et problématique d'approvisionnement en eau potable. / Río Claror: problemas de erosión y suministro de agua potable.	B. Komac, chercheur / investigador Andorra Recerca + Innovació.
16h10	Domaine skiable de Superbagnères : Le sol, notre terrain de jeu. Retour d'expérience d'une station. Experiencia adquirida por la estación de Superbagnères : El suelo, nuestro campo de juego.	P. Coudin, animateur OSE, B. Rabasse, coordinateur services Superbagnères, Régie des stations Haute-Garonne / P. Coudin, animador OSE, B. Rabasse, coordinador de servicios Superbagnères, estaciones de Haute-Garonne
16h40	Échanges et relai des questions du chat. Intercambios y preguntas del chat.	M. Delafoulhouze, chargé de restauration écologique au CBNPMP

Inscription : / **Inscripción :** <https://bit.ly/3CRHfoJ>

Un mail de confirmation vous informera du lien de connexion pour rejoindre le webinaire. Un correo electrónico de confirmación le informará del enlace para unirse al seminario web.

Au plaisir de vous y retrouver ! / ¡ Esperamos verte allí !

Figure 18: ECOVARS seminar programme on ecologically restoring soil: <https://www.opcc-ctp.org/es/newsletter/webinario-ecovars>

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PROJECT PARTNERS



TECHNICAL COMMITTEE AND EXECUTIVE CTP COMMITTEE



**Interreg
POCTEFA**



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