



WinWind has received funding from European Union's Horizon 2020 Research and Innovation programme under Grant Agreement N° 764717

# REPORT

## Transfer Workshop in Spain–Menorca



Menorca, 4 October 2019

## TABLE OF CONTENTS

INTRODUCTION.....	3
1. THE BEST PRACTICE SELECTED: ABRUZZO WIND PARK REPOWERING.....	4
1.1 Abruzzo Repowering Case Study .....	4
2. THE EUROPEAN AWARENESS SCENARIO WORKSHOP - EASW® METHODOLOGY .....	9
3. INVITATION LETTER TO THE EASW .....	12
4. AGENDA.....	13
5. LIST OF PARTICIPANTS .....	14
6. THE REFERENCE SCENARIOS PRESENTED IN MENORCA.....	15
7. RESULTS OF THE GROUP SESSIONS .....	20
7.1 Group A – Vision Making Activity results .....	21
7.2 Group A – Idea generation Activity results: Top 6 ideas proposed .....	24



## INTRODUCTION

The Transfer Workshop presented in this report has been realised within the range of activities planned under Work Package 5 of the WinWind project (*Learning laboratories: transfer and validation of best practices*), aimed at transferring the best practice and measures, analysed and selected by partnership Members, to targeted Wind Energy Scarce Regions identified (WESRs, as “learning regions”), focusing on community participation and engagement. The transfer session was addressed to a wide range of relevant stakeholders coming from Region of Abruzzo, representing: Public administrators/decision makers; Experts and Technicians; Citizens and Associations and Private Business sector.

The outcomes of the learning lab realised will be used to the drafting and signing of a *Memorandum of Understanding* (MoU), where will be indicated the rules and roles for the operative accomplishment of the transfer processes. Consistently with the implementation process abovementioned, to realise the Learning laboratories foreseen in the WP5 - aimed to the transfer and validation of best practices - some preparatory actions have been made:

- selection of the measures (chosen from best practices portfolio) to be transferred to the Wind Energy Scarce target Regions ( *WESR*, as “learning regions”);
- creation of transfer teams consisting of stakeholders and market actors from the WESR and mentoring experts from the WinWind consortium and partner countries with implemented best practices;
- work out of Transfer management Plans - with the support of the mentoring experts and the national/regional desks of the “learning regions” – providing specific transfer concepts and including proposals about how the corresponding measures can be accommodated in the adopting region, (development of *Reference Scenario*), to match prevailing acceptance problems with appropriate best practice solutions.



Can Oliver - Venue of Workshop in Menorca



## 1. THE BEST PRACTICE SELECTED: ABRUZZO WIND PARK REPOWERING

As described in the *Transfer Management Plan* concerning the learning labs addressed to the Region of Balearic Islands (Menorca), the bestpractice selected was *Abruzzo Wind Park Repowering* that had been chosen since it is well suited to the Italian and regional energy policy context.

In Deliverable 4.2 *Best Practice Portfolio* produced by partnership members of the WinWind project, Abruzzo Wind Park Repowering was categorised as an initiative to minimize the environmental and landscape impact. Nevertheless, the measure was also a BEST example of the promotion of procedural justice (whereby citizens could participate in the decision making process and planning of the repowering) as well as promoting local add value creation.

During the introductory phase of the transfer workshop, the Abruzzo Repowering Case Study was introduced to participants by the mentors Roberto Venafrò (E2i SpA – the developer of the repowering) and Tania Guiffra (ENEA).



Presentation of the Abruzzo during the opening session

### 1.1 Abruzzo Repowering Case Study

Considering the relatively obsolescence of the existing wind farms in Italy, of which about 2,000 MW have exceeded 10 years, the anticipation of the renewal of the existing wind farm is certainly an opportunity to be exploited. Usually, repowering of wind farms occurs when such installations are built around 12-20 years old. Such facilities wind farms are equipped with less efficient turbines with weaker facilities to consider environmental protection.

This has been the situation in Abruzzo, where the first wind farms were built in 2000. Since 2013, the old turbines in Abruzzo, which were producing 0.6-0.7 MW, have each been



substituted by new WTG of 2-4 MW. The new turbines tend to be larger and installed at greater heights, allowing for more capacity per turbine. Indeed, these wind farms have great potential for repowering because they are located in sites with high wind speeds and are already tested. Additionally, they may use existing infrastructures for connecting to the national electricity network as they are already a consolidated industrial presence on the territories.

This repowering process began when E2i carried out a detailed preliminary technical study on select sites with no environmental restrictions. According to the Abruzzo Region Guideline for wind energy, the wind farms must respect a buffer of 150m from archaeological sites and 500m from residential areas (Regione Abruzzo: 2016). Following the satisfaction of these criteria, a consultation and dialogue began with local authorities. This intensified during the final project phases (authorisation and realisation).

In sum, the repowering of existing wind farms has been conducted to reduce the environmental impact of the wind farms. The careful selection of advanced wind technologies with the use of powerful turbines allowed the developers to reduce the number of WTG, whilst bringing the benefit of additional energy generation to the territory.

Finally, in understanding the motivation, coordination and activities of the developer E2i, it is useful to consider the existence and compliance with a voluntary self-commitment of the industry: the “Carta del rinnovamento eolico sostenibile” (Charter of sustainable wind energy renovation). This agreement is followed by both private and public entities such as wind operators (E2i, Enel Green Power, ERG Renew, Falck Renewables and IVPC Group), the Italian National Association of Municipality (ANCI) and the environmental no profit association Legambiente (E2i Energie: 2015). This Charter is based on the following principles and operational criteria:

#### *Leading principles*

**Maximising the natural wind source in sites already exploited** - Technological innovation is the guiding criterion for designing the renewal of wind farms and the replacement of wind farms existing wind turbines with others. The new ones are to be more efficient and with high standards of quality, safety and environmental compatibility, as well as more effective and more flexible in terms of performance. Ensuring greater efficiency in the use of the "soil", whilst at the same time also increasing the production of energy, will produce a double benefit for the environment of that territory. Particular attention must be paid to reliable evaluations of the productivity of the plants.

**Maximising land use and pre-existent infrastructures** - The replacement of existing wind turbines with new generation ones leads to the redefinition of the spaces and the occupied territory. The existence of potentially reusable national power grid infrastructures, such as the existing road infrastructure, leads to lower costs for the system and entails less invasiveness



in the territory. Particular attention must be paid in layout design and minimisation of the paths and maintenance of access roads to the site through the realisation of works in line with the ambiguous and urbanistic canons of the area.

**Maintaining the dialogue with the Institutions and local communities** - The renewal of the existing park is an opportunity for the territory of which the plant has now become an integral part. Through the dialogue with the institutions, barriers can be overcome, thanks to previous experiences of all stakeholders.

**Containment and mitigation of environmental impact in all process phases** - The renewal of an existing wind farm means the "redesign" of a plant that, over time, has become an integral part of the landscape itself. Additionally, thanks to this "relationship" acquired with the territory, it is possible to minimise the impacts and achieve solutions.

#### *Main features of the measure*

A number of aspects of the repowering project were designed to address the concerns and barriers listed above, resulting in an improvement of the social acceptance.

#### **Reducing the environmental and visual impact**

This concern was certainly the most important among the local community and as a consequence, various measures and actions were taken to overcome the barriers:

- Particular attention was paid to the layout design, avoiding visual impact and reducing acoustic emission;
- The use of anti-reflective coatings reduced the impact from glint and glare on birds;
- To maintain or reduce the land use, the same area was utilised (no exploitation of new territories);
- The "forest effect" of wind farms was reduced by improvements of landscape.

All in all, an increased sense of sustainability was attached to the repowered wind farm, as the visual impact of new farms was minimised and use of wind resources and generation of sustainable energy was maximised.

#### **Promotion of procedural justice**

The repowering in Abruzzo was a highly participatory process carried out by E2i. The local administrations and community's involvement were highly encouraged through public meetings from the planning stage throughout until the actual implementation. Part of the success of engaging with the local community was the fact that the local administrations played a crucial role by acting as the interface towards the local communities, ensuring a constant and informed dialogue with citizens.

A result of the public debate was that some proposals were made about the possibility of making some changes to the project, so that it considers other more appropriate technologies



for the selected site of intervention, for the purpose of reducing the visual impact. As a consequence of this process, a strong degree of trust has been created among between the developer (E2i) and both the local community and the local authority.

### **Local added value**

In promoting social acceptance, the repowering also partially improved social acceptance by creating local added value to the local economy. These came in two forms:

- Employment created in the local areas to carry out the repowering process.
- Restoration of the road network and grid connection (for the purpose of repowering) increasing the accessibility of the area.

### *Key actors and stakeholders*

The target groups of the measure are the local citizens and municipalities, for whom the environmental impact is minimised, their participation is gathered, and will essentially indirectly benefit from the measure.

The key actors involved have been the following:

- E2i Energie Speciali S.r.l., wind farm installer.
- Abruzzo Region, territorial Institution responsible for giving permission. Iris Flacco, Head of Service of Energy Policy, Air Quality, National Environmental Information System, Abruzzo Region.
- Municipalities of Schiavi d'Abruzzo (CH), Castiglione Messer Marino (CH), Roccaspinalveti (CH), local administrations.
- Luciano Piluso, Mayor of Schiavi D'Abruzzo
- Franco Paglione, Mayor of Roccaspinalveti
- Emilio Di Lizia, Former Mayor of Castiglione Messer Marino

### *Effectiveness*

The measure has been highly effective in achieving social acceptance in Abruzzo. However, the lasting effectiveness of social acceptance of this initiative depends on continuous knowledge and information about the site's electricity production, as well as the direct and indirect environmental and economic benefits that the initiative has brought and continues to bring to the territory. Furthermore, it is necessary to maintain and consolidate the existing relationship and synergies, so that the developed industrial and skills assets, specialisation and employment of works, are safeguarded and continue to benefit the local community.

### *Innovativeness*

Repowering of wind farms is a technology invented in the late 1980s in California. Since the early 1990s, it has gradually become more commonly used in northern European states such



as Germany and Denmark. However, in southern European states, particularly in Italy, repowering is still a highly innovative method.

### *Transferability*

The extent to which repowering can be transferred to other places will depend on a number of factors. To begin with, it is necessary to include the age of the existing wind farms and to determine whether the life of the existing wind farm is appropriate for intervention and repowering (as mentioned above, normally between 12-20 years old). Normally, the expected repowering ought to generate approximately 50% more energy.

Additionally, it is important to consider other contextual factors such the favourability of existing regulations and local decision makers, funding availability, the approaches/strategies of relevant investors and developers and the strength resources. Indeed, repowering could strongly contribute to reaching the EUs decarbonisation targets with no exploitation of new territories matching the interest of citizens and administrations.



## 2. THE EUROPEAN AWARENESS SCENARIO WORKSHOP - EASW® METHODOLOGY



The EASW® is a method conceived and used since the 1990s by the Danish Board of Technology to facilitate innovation transfer and create agreements between different groups of stakeholders. In 1994 the methodology was adopted by the European Commission and officially distributed within the European Innovation Program, thanks to the work of the Dutch TNO and of the IDIS Foundation - City of Science and subsequently applied throughout Europe. The EC has registered the EASW® trademark to protect it from improper use (a sort of copyright) and has created a network of European experts, the "National Monitors", who spread the method, guaranteeing the quality of its application.

An EASW® helps and supports democratic participation in choices related to the improving of the living conditions of a community and to the sustainability of a territory. It allows participants to exchange information, discuss the themes and processes that govern local development, the impact of choices on the natural and social environment, stimulating their ability to identify and plan concrete solutions to existing problems. The method, widely applied throughout Europe, proved to be particularly suitable to:

- encourage dialogue and participation amongst the various components of society;
- create a balanced relationship between environment, economy and society;
- allow sustainable development in respect of the needs and aspirations of the members of a local community.

The EASW® participants meet to exchange opinions, develop a shared vision of the future of a territory and propose ideas on how to achieve it, answering the following essential questions:

**HOW** can the identified problems be solved? It will be necessary to focus more on technology or organizational solutions?

**WHO** is primarily responsible for their solution? Local authorities, citizens or both?

Therefore, the method stimulates participants to think about the role that technology, on the one hand and, on the other, the different systems of social organization, (as volunteering, public services, etc.), can play to make development models more focused on the needs of the future generations. It does so in a simple and inductive way, because its main goal is to



make people discuss on issues that, at least tendentially, are distant from everyday life. And the participants are experts, since, working at the local level, they:

- ✓ know the opportunities for change and limits related;
- ✓ can promote change by changing their behavioral patterns.

Approximately 20-30 people, selected according to their origin, (city, neighborhood, company, territory, etc.), participate in an EASW. They must be representative of the reality in which they operate. Generally they are chosen among four different social groups (stakeholders):

1. Citizens/Associations
2. Technology experts
3. Public administrators
4. Representatives of the private sector

An EASW® is based on two main activities: the **development of visions** and the **proposal of ideas**. During the **development of visions** participants, after a brief introductory session, work divided into role groups, due to their belonging to the same social category (citizens, administrators, etc.). During the group work, they are invited to project themselves into the future to imagine how, with respect to the topics of the discussion, to solve the problems of the territory in which they live and work. They must do so by taking, as a point of reference, the scenarios which envisage possible alternative solutions (based on different combinations in the use of technologies and in the organization of solutions).

To facilitate this activity, the methodology foresees the use of a range of techniques apt to manage the discussion and to achieve the expected results. The visions designed by each group are presented in a subsequent plenary session. These visions have to accurately outline the solutions adopted, emphasizing for each one the role played by technology and by the organization of the community.

The common vision emerged at the end of the first working session - refined by the facilitator and by the group leaders within a small meeting (petit comité) – represents the starting point on which the next activity will be based.

During the **proposal of ideas** the participants are called to work in thematic groups. After a brief introduction to the work, where the facilitator presents the common vision emerged from the first session, a new step of group work begins. This time the groups are formed mixing the participants consistently with the topic to be discussed (water, energy, etc.). Each group,



representing in this way different interests, will have to focus on the proposal of ideas suitable for implementing the common vision emerged. Also in this second set of activities the discussion will have to be guided, with the help of a series of techniques, to have each group formulate concrete ideas proposing how to realize the common vision and who will have to take responsibility for its realization with respect to the assigned topic.

Usually, each group is asked to formulate a limited number of ideas (around 5), that are presented in a subsequent plenary session, to be discussed and voted on. The most voted ideas will eventually be the basis of the local action program, drawn up by the participants to address the issues under discussion.



### 3. INVITATION LETTER TO THE EASW

## WINWIND- LEARNING LAB

To develop a socially inclusive wind energy

In the European WINWIND project (Winning Social Acceptance for Wind Energy in Wind Energy Scarce Regions), funded by the Horizon 2020 program, the Balearic Islands are "target regions" for the analysis of the social acceptability of wind energy.

The "Learning Labs" or learning workshops aim to transfer the Best Practices (BP) selected at European level to build strategic scenarios and ideas for their implementation in the Balearic territories.

The Best Practice (BP) that we have identified for the Balearic Islands is the re-powering project of the wind farms in the Abruzzo region (Italy).

The general purpose of the work session proposed is to share measures and methods identified and, through the commitment and participation of the local and regional community, to analyse and validate actions that could be adopted in the next future to apply the best practice selected.

The methodology adopted is the EASW (*European Awareness Scenario Workshop*), recognized by the European Commission to promote shared sustainable development models based on a more careful use of resources and to stimulate the democratic participation/debate on the identification of choices suitable to the improvement of local communities with a view to sustainability and social acceptability.

**We hereby invite You to take part in the works that will be held**

**On the 4<sup>th</sup> of October 2019 at 10.00 am**

**Can OLIVER- Carrer de la Infanta 11**

**Mahón, Menorca**

**Please find attached the Agenda**



## 4. AGENDA

Time	AGENDA OF THE DAY
10:00	<b>Registration of Participants</b>
10:15	<ul style="list-style-type: none"> <li>- Welcome</li> <li><i>DG Energy and Climate Change Govern Balear</i></li> <li><i>Insular Directorate Biosphere Reserve</i></li> <li>- Presentation of the objectives of the Learning Laboratory</li> <li><i>ECORYS, ENEA</i></li> <li>- Presentation of the best practice of Re-powering of the Abruzzo region <i>Abruzzo Region and E2i Energie Speciali</i></li> <li>- Presentation of the starting scenario in Menorca</li> <li><i>Menorca Urban Waste and Energy Consortium</i></li> <li>- The EASW Workshop (European Awareness Scenario Workshop)</li> <li>- Presentation of the REFERENCE SCENARIO until 2030. Transfer of best practices to overcome the barriers of social acceptability in Menorca.</li> <li><i>ECOAZIONI - ECORYS.</i></li> </ul>
	<i>Division of participants into 2 subgroups (if relevant)</i>
11:30	<p><b>Group Work Session</b></p> <p>Starting from the baseline scenario, each group prepares a presentation of the shared "STRATEGIC SCENARIO":</p> <p><i>"We are in 2030, also thanks to the WinWind project, the level of social acceptance towards wind energy has increased. We have been able to achieve this success thanks to the strategies and measures implemented. Participants are asked to describe a shared Strategic Scenario based on the following questions: What happened, what strategies have been developed, who made the change possible?"</i></p>
12:00	<p><b>Group Work Session Continues</b></p> <p>Starting from the Strategic Scenario prepared by the participants, the group identifies the 5 ACTIONS / Urgent measures to be implemented to begin the construction of the Scenario as of today.</p>
12:30	<p><b>Selection of the plenary sessions of "TOP IDEAS"</b></p> <ul style="list-style-type: none"> <li>- <i>Each group presents its own vision and ideas, important and urgent actions / measures to be implemented.</i></li> <li>- Participants vote on the most important and urgent ideas to launch</li> </ul>
13:00	<p>Considerations and Conclusion of the work of the day</p> <p>Evaluation Follow-up (<i>ECOAZIONI, ENEA, ECORYS</i>)</p>
13:15	Technical visit to Es Milà wind park
14:00	End of the day



## 5. LIST OF PARTICIPANTS



LISTA DE ASISTENTES AL LEARNING LABORATORY – MAHÓN, 4 octubre 2019

ORGANIZACIÓN	NOMBRE, POSICIÓN	EMAIL	FIRMA
ATENEU	Maria Paz Seguí Chinchilla Vice Presidenta	ateneu@ateneu.mahon.org	
Consejo Insular de Menorca	Eduardo Soriano Director Insular Ordenación Territorial		
Consejo Insular de Menorca	Irene Estaún Clarisó Directora Insular Reserva de la Biosfera	irene.estaun@cime.es	
Consejo Insular de Menorca	Maite Salord	maite.salord@cime.es	
Consejo Insular de Menorca	Susana Mora		
Consejo Insular de Menorca	Isaac Vidal		
Consejo Insular de Menorca	Esteve Marques	estevem.barcelo@cime.es	
Conselleria de Territori, Energia i Mobilitat, Govern Illes Balears	Aitor Gonzales Director General Energia	SHIPE	
Consorcio de Residuos Urbanos y Energia de Menorca	Rafael Muñoz Ingeniero técnico industrial	r.muc.rsu@cime.es	
E2i SpA	Roberto Venafro	roberto.venafro@edison.it	

WinWind has received funding from European Union's Horizon 2020 Research and Innovation programme under Grant Agreement N° 764717. The sole responsibility for any errors or omissions made lies with the consortium. The content does not necessarily reflect the opinion of the European Commission. The European Commission is also not responsible for any use that may be made of the information contained therein.

ECOAZIONI	Massimo Bastiani VIRNA VENTURINI	V.venafro@edison.it	
ECOAZIONI	Virna Venafro MARIO BASTIANI	m.bastian@ecoazioni.it	
ECORYS España	Nicoletta del Bufalo Directora		
ECORYS España	Pouyan Maleki Consultor	pouyan.maleki@ecorys.com	
ECORYS España	Valeria Núñez Consultora	valeria.nunez@ecorys.com	
Endesa	Julie Salgado Responsable RR Institucionales Balears	julie.salgado@endesa.com	
Grupo Ornitológico Balear (GOB)	Cristófol Mascaró Coordinador	cmascaro@gobmenorca.com	
Grupo Ornitológico Balear (GOB)	Miquel Camps		
Institut Menorquí d'Estudis, Directrius Estratègiques de Menorca	Jesús Cardona Coordinador	jcardona@institutmenorca.com	
Periódico Menorca.info	Periodista JAVIER OLABERT	jglabert@menorca.info	
Regione Abruzzo	Iris Fiacco		
Regione Abruzzo	Laura Antosa		
ENEA	NICOLA LABIA	nicola.labia@enea.it	
CONSORCI DE RESIDUS I ENERGIA DE MENORCA	EDUARD ESCOLA	eduard.escola@cime.es	
VISITOR	ANTONIO DEMITIO		
VISITOR	PAOLA BERARDINI		

WinWind has received funding from European Union's Horizon 2020 Research and Innovation programme under Grant Agreement N° 764717. The sole responsibility for any errors or omissions made lies with the consortium. The content does not necessarily reflect the opinion of the European Commission. The European Commission is also not responsible for any use that may be made of the information contained therein.





## 6. THE REFERENCE SCENARIOS PRESENTED IN MENORCA

Reference Scenario has been designed consistently with the Transfer Management Plan (task 5.1), through the joint cooperation between transfer team and mentors.

For the learning Lab held in Menorca on 04/10/2019 two reference scenarios have been developed, based on the adoption of the “Abruzzo Repowering” measure.

Scenarios proposed were two possible vision of the future (in the year 2030):

- built on three main issues: **Political context, Social context, Economic and Environmental context**;

- taking into account two variables (how and who diagram):

**Scenario 1** *Organization and contextualization of the measure with prominent role of the public sector,*

**Scenario 2** *Organization and contextualization of the measure with prominent role of the local community and private sector.*

Reference Scenarios proposed to participants were the following:

**We are in 2030.** Thanks to the WinWind project and the transfer of the measure “**repowering of wind farms in the Balearic Islands**”, the level of social acceptance towards wind energy has increased. We have achieved this success thanks to the strategies and measures implemented.



## SCENARIO 1 "THINK GLOBALLY, ACT LOCALLY":

### THE ROLE OF WIND ENERGY IN THE FIGHT AGAINST CLIMATE CHANGE

#### Political Context

The international route to combat climate change has focused on investment in renewable energy and an economy that abandons fossil fuels. Nations, regions and local communities have been asked to play their part. Energy production and use represent two thirds of global greenhouse gas emissions. Therefore, the energy sector faces the need to reduce emissions very significantly, but at the same time it must ensure the security of supply and the availability of affordable energy to support economic growth. The national target for wind power in 2020 was about 28,000 MW accumulated according to the result of the auctions; in 2030 it has reached an accumulated of 58,000 MW in accordance with the objectives of the PNIEC.

At the same time, more and more attention has been given to ensuring compatibility between the objectives in terms of energy, landscape, air and water quality, biodiversity and soil protection. The necessary measures for the increasing decarbonization of the system naturally required facilities and infrastructure whose impacts have been mitigated through the involvement of local communities and opening the decisions and actions to be taken in a dialogue shared with the territories. The Autonomous Community of the Balearic Islands in general and Menorca in particular continue to have the objective of a decisive reduction in the emissions caused by climate change, with actions in favor of renewable energy. The Region has made a repeal of the maximum installed wind power and a slight extension and recognition of the areas suitable for the installation of wind turbines with clear standards and framework agreements between the public body and the wind energy producers.

#### Social Context

National and regional policies for adaptation and the fight against climate change have given new impetus to local authorities, who have assumed an increasingly proactive role in managing the development of renewable energy sources and in creating a link Effective "bidirectional" with regional energy and environmental planning. In both lines it has been shown that, by spreading examples of "BEST practices" also in comparison to similar European experiences, growing perspectives of development have opened up. Local strategies are based, firstly, on a greater awareness of the options to be taken (civic education in schools has been integrated with environmental education) and a direct commitment to the determination of energy options, evaluating all externalities related from the beginning. In the case of the Abruzzo region, which we have briefly known, the strategy has been based on maximizing the following drivers to increase social acceptability:

1. Reduction of the impact on the territory (by optimizing the same space with the repowering of the parks)
2. Participatory procedures and increased confidence (meetings from the planning stage to the end, monitoring, open dialogue and continuous information, possibility of introducing changes, increasing trust in the main actors of the process)



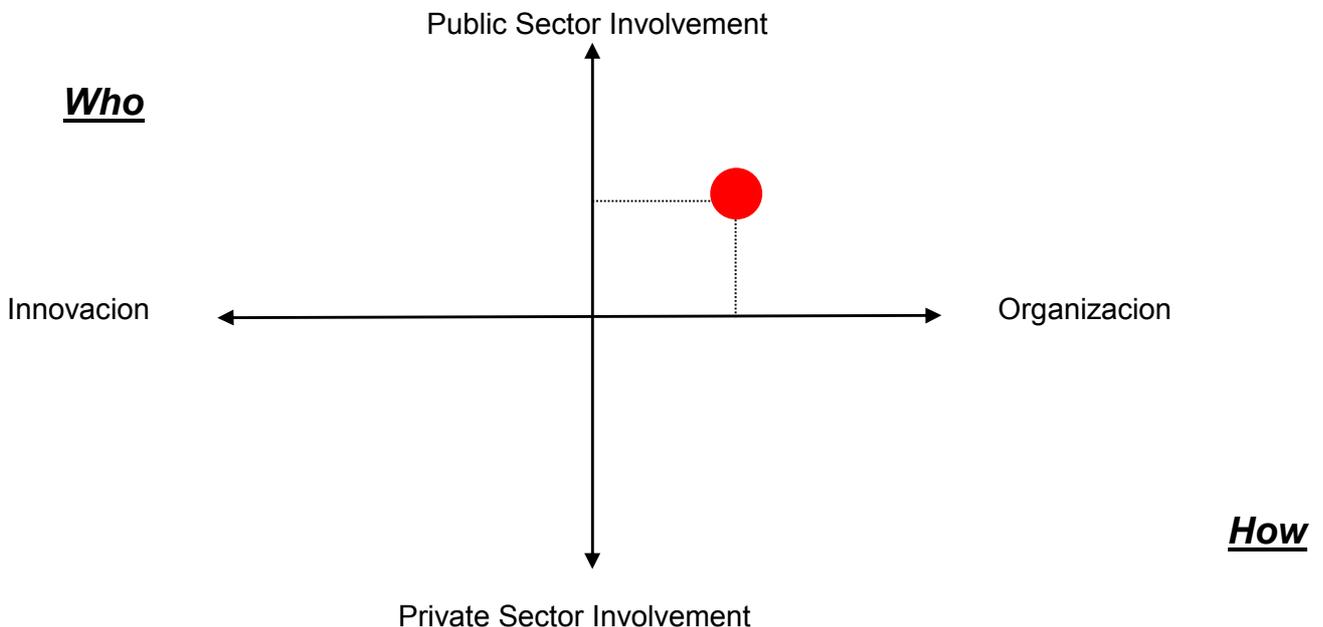
3. Impact on the local economy (employment improvement and concrete infrastructure improvements).

Wind energy remains an option that allows the production of large amounts of energy with reduced land use compared to other forms of production. As a result of a prudent location policy and the repowering of the existing park, social acceptance has increased.

In the Balearic Islands, the results obtained are encouraging, and the island territories have joined forces with the same objective (the reduction of greenhouse gases), contributing their experience to support a sustainable development process of 100% renewable territories.

**Economic and environmental context**

The general balance between costs and benefits of the fight against climate change has had important economic effects. The growth of electric renewables has been consistent with the European objective of 32% and has been very positive for the country. In the electrical system, strictly speaking, we have saved enormously and contributed to the creation of almost ..... jobs. Some experiences such as the repowering of wind farms have indicated the way to start a direct participation in the benefits related to the production and energy consumption of the sector. The fees paid to local authorities are largely invested in measures to combat climate change and are codified through a "framework agreement" between the Region, wind producers and local governments. Employment has also increased with the dissemination of new professional environmental educators (climate educators) and environmental mediators.



## SCENARIO 2 LOCAL PACTS BETWEEN ADMINISTRATIONS, CITIZENS AND COMPANIES FOR THE SOCIAL ACCEPTANCE OF WIND ENERGY

### Political context

Spain has accelerated the transition from traditional fuels to renewable energy by promoting a clear commitment to the Energy Transition that has become more evident as of 2019 within the European Union. The Autonomous Community of the Balearic Islands has also fulfilled its governmental responsibilities by managing the energy transition and contextualizing it in its own territory through the approval of the Climate Change Law of 2019. The transition from the old to the new energy model in the Balearic Islands has led to ensuring efficiency, stability, economic results of businesses and comfort for families. In the wind energy sector, it was about optimizing its use in the small territory, seeking the best balance with the need to reduce the environmental impact, also eliminating those sites that, despite having a "wind vocation", presuppose an infrastructure excess incompatible with the nature of renewable sources.

### Social context

In the regional energy policy, the presence of some wind farm has assumed not only an economic-industrial value, but above all socio-political. Strong and positive relationships have been created between local administrations and wind producers, highlighting the benefits that can be achieved in terms of renewable energy production, increased jobs for local workers, economic income for the administration and potential attractiveness to The tourism. In addition, it is "established practice" to propose to the administrations, on the part of the wind energy producers, the stipulation of an agreement (in the form of a Wind Pact) that, before an economic commitment in favor of the same, establishes an official relationship of cooperation between the parties. In the case of the planning of a new plant (or the extension of the existing one), residents are involved as soon as possible, to take into account their wishes, their views and their attitudes, that is, the rationality of meaning common, which is important for a thorough reading of the problems of a particular territorial area, which must be taken into account at least as much as the information from the scientific and economic world. To avoid environmental conflicts, participation is not limited to information, but is intended to open a deliberative process among residents. The same decision-making processes are adopted by administrations to decide how to allocate locally the income from royalties agreed by wind energy producers, so that the benefits are as wide as possible among the inhabitants. In the case of the Abruzzo region, which we have briefly known, the strategy has been based on maximizing the following drivers to increase social acceptability:

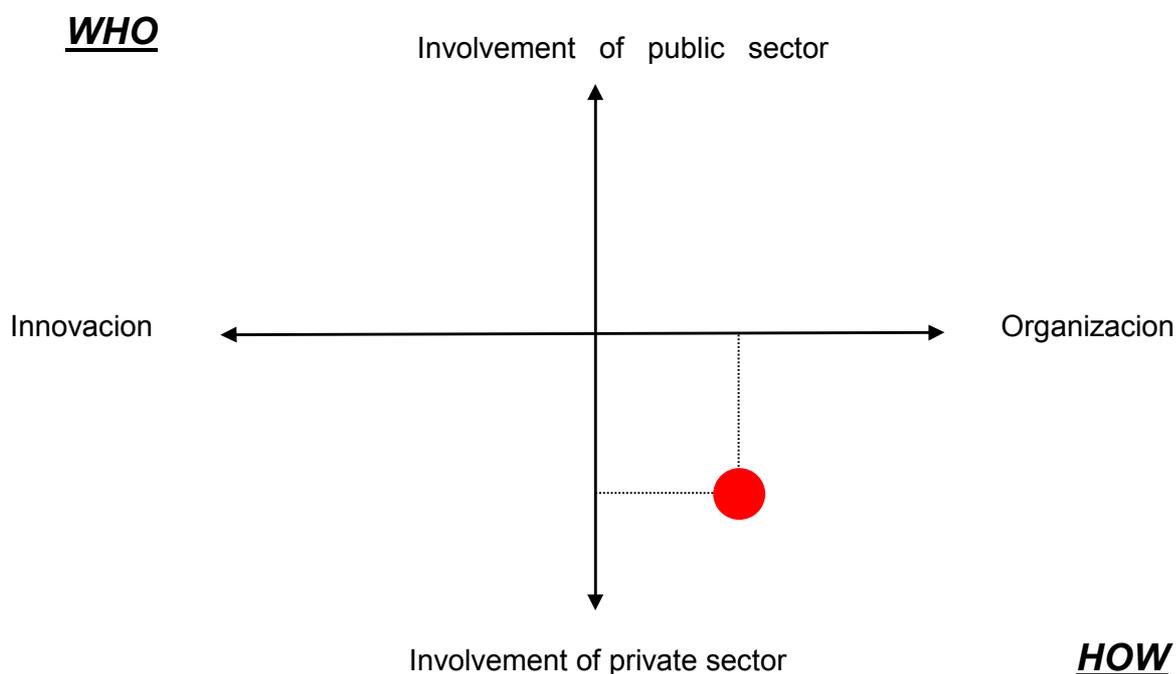
1. Reduction of the impact on the territory (by optimizing the same space with the repowering of the parks)
2. Participatory procedures and increased confidence (meetings from the planning stage to the end, monitoring, open dialogue and continuous information, possibility of introducing changes, increasing trust in the main actors of the process)
3. Impact on the local economy (employment improvement and concrete infrastructure improvements),



## Economic and environmental context

In the Balearic Islands, social acceptance of renewable energies has improved and many prejudices have decreased. At the local level, it is evaluated (as part of a mixture of sources) as an option that can be used in the preparation of strategies for the production of electricity without any emission of harmful emissions to health and the environment and capable of producing benefits in economic terms. Local communities benefit from both the fees for electricity production and the payment by income producers for the occupation of land that can still be used for agriculture, livestock and pastures, as wind turbines and The support works occupy only a small part of the territory necessary for the construction of a plant. Royalties for municipal administrations, especially for smaller municipalities, have often represented the main revenues of the budget, which has allowed mayors to take environmental protection initiatives and investments in social welfare. Another effect of the development of the processes of sharing and participation in the decisions has allowed us to better plan the use of the land, correctly identifying the areas to be infrastructure and integrating them functionally with respect to those existing for the creation of natural parks and / or areas of living place. Local / regional administrations have reference regulatory frameworks, as well as supporting regulatory infrastructures, which allow them to do so:

- attract funding from national and EU sources dedicated to the development of the sector;
- use these resources quickly and transparently;
- the accountability of the programs and their results to the public.



## 7. RESULTS OF THE GROUP SESSIONS

On the basis of the the BEST practice “Abruzzo Repowering” selected for the transfer activity and two Reference Scenarios presented, the facilitator of each subgroup introduced the Vision making activity:

***“We are in 2030. Thanks to the WinWind project and the transfer of the measure “repowering of wind farms in the Balearic Islands”, the level of social acceptance towards wind energy has increased. We have achieved this success thanks to the strategies and measures implemented”***

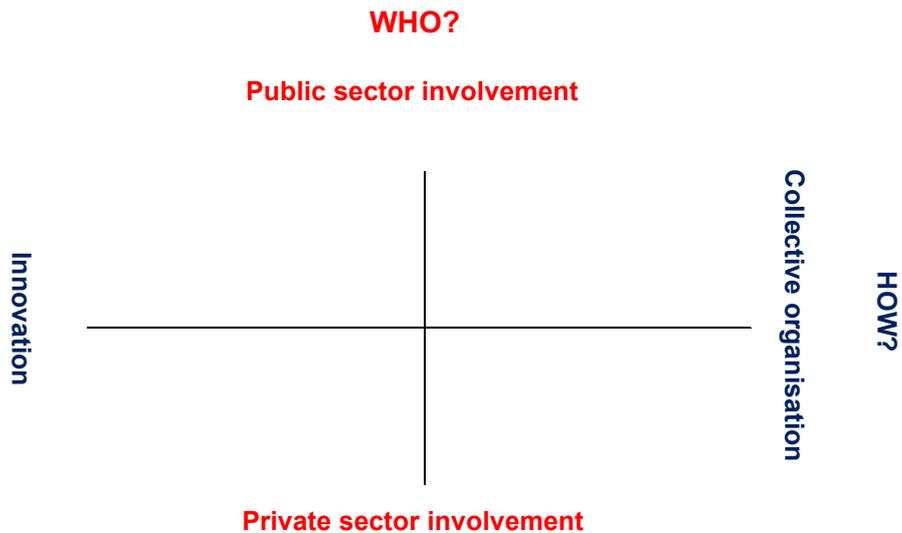
To make participants of each group start working on their Strategic Scenario, each facilitator asked them to consider:

- three questions:
  - *What happened?*
  - *What strategies have been developed?*
  - *Who made the change possible?*
  
- three main issues/relevant themes:
  - *Theme 1 - Political context*
  - *Theme 2 - Social context*
  - *Theme 3 - Economic and environmental impact*
  
- four variables
  - *Public sector involvement (WHO)*
  - *Private sector involvement (WHO)*
  - *Innovation (HOW)*
  - *Collective organisation (HOW)*

The Strategic Scenario developed by each group, in fact, had to be designed also considering its insertion in the **“How and Who” diagram**, in order to help participants to create and visualize their own vision in order to answer to the questions above mentioned, reflecting on:

- “the typology of actor” (“Who”) responsible for solving the problems that may impede the implementation of the strategic scenario;
- “by means of what” (“How”) it is possible to solve the problems that may impede the implementation of the strategic scenario.





## 7.1 Group A – Vision Making Activity results

Facilitator: **Valeria Nunez** (Ecorys)

### Design of the Positive Strategic Scenario:

“We are in 2030, also thanks to the WinWind project, the level of social acceptance of wind energy has increased. We have achieved this success thanks to the strategies and measures implemented ”

**What has happened?**

**What strategies have been developed?**

**Who has made this change possible?**

#### Political context

- Regional framework
- Take into account the national state level (legislation, authorizations, resources ...)
- Changes in investment and remuneration systems: Greater investment at the island level (15% or more)
- Balance between administrations



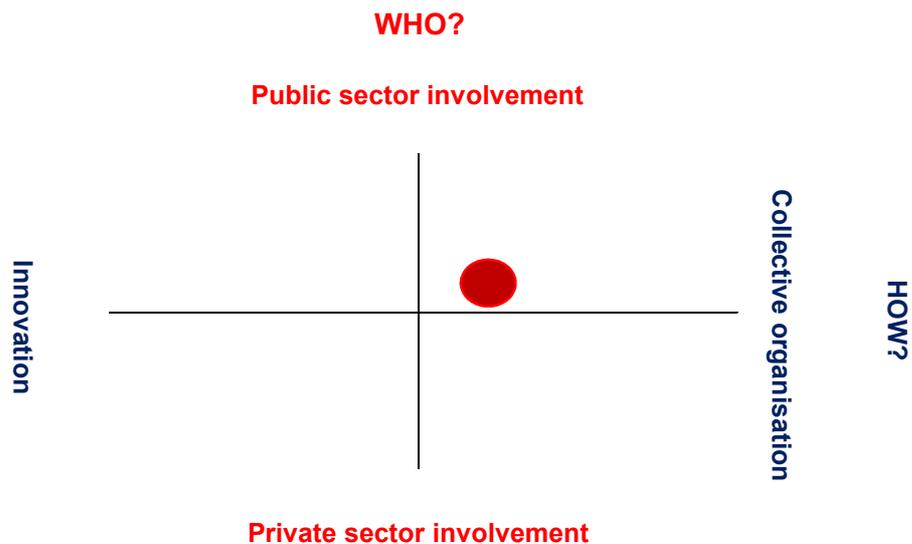
### Social Context

- 1% island territory with photovoltaic panels: 0.01% in wind
- Simplification of administrative processes
- Remove obstacles to SMEs, local associations ...
- Identification between renewable and biosphere reserve
- Change in aesthetic and functional perception
- Overcoming the idea "Tax from outside": Island actors and benefits for locals

### Economic and environmental context

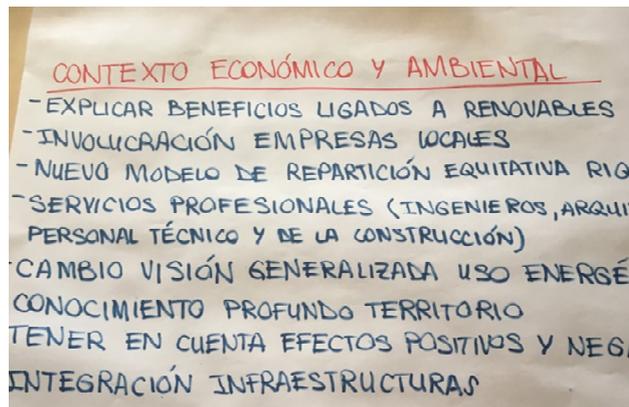
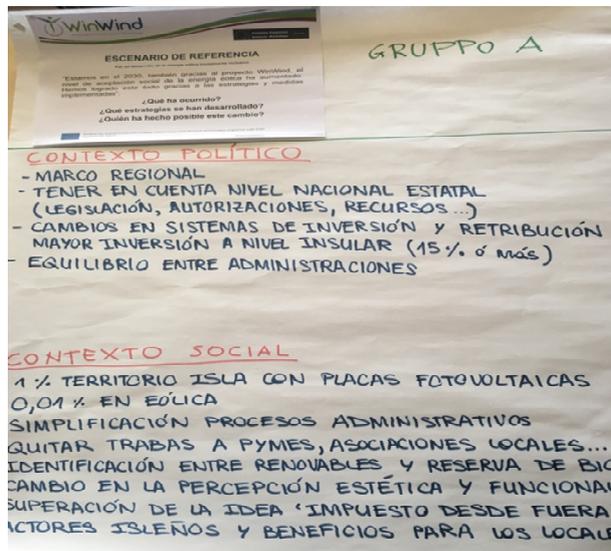
- Explain benefits linked to renewable
- Involvement of local companies
- New model for equitable wealth distribution
- Professional services (engineers, architects, technical and construction personnel)
- Change generalized vision energy use
- Deep territory knowledge
- Take into account positive and negative effects
- Infrastructure integration

### Insertion of the Group A Scenario in the How/Who diagram



WHO: Public Sector

HOW: Organization



ACCIÓN (ACTION)	QUIÉN (WHO)	CÓMO (HOW)
1. REDUCCIÓN CONSUMO ENERGÍA PRIMARIA EN LA ISLA FINAL	CONCIENCIA CIUDADANA REGLAS + INCENTIVOS PÚBLICO + PRIVADO	PÚBLICO PRIVATO EDUCACIÓN, FORMACIÓN INFORMACIÓN
2. PARQUE EÓLICO ISLEÑO	AYUNTAMIENTOS CONSEJO INSULAR RESIDENTES	CROWDFUNDING
3. ALMACENAMIENTO ENERGÉTICO	ADMÓN. PÚBLICA	CENTRALES DE ACUMULACIÓN
4. REDUCCIÓN TARIFA ENERGÉTICA MODIFICACIÓN PEAJE	MINISTERIO CIUDADANOS	VARIACIÓN POTENCIA UTILIZACIÓN MAYOR RENOVABLES COMUNIDAD ENERGÉTICA AUTOCONSUMO
5. COMUNIDAD ENERGÉTICA EN POLÍGONO INDUSTRIAL	EMPRESAS PROPIETARIOS PROFESIONALES GOBIERNO BALEAR ASOC. INDUSTRIALES	MENORCA COMO FUENTE TRANSFERENCIA A OTRAS ISLAS EN CASO NECESARIO
6. POLÍTICA DESCARBONIZACIÓN	COMERCIOS, LOGÍSTICA Y TALLERES GRUPOS HOTELEROS	DIFUSIÓN BUENAS PRÁCTICAS



## 7.2 Group A – Idea generation Activity results: Top 6 ideas proposed

	Action	Who	How	Number of votes
1	Reduction of primary and final energy consumption on the island	Public awareness Rules + incentives Public + private	Education, training, information	<b>16</b>
2	Island wind farm	City halls Island council Residents	<i>Crowdfunding</i>	<b>9</b>
3	Energy storage	Public administration	Accumulation stations	<b>5</b>
4	Energy Rate Reduction Toll Modification	Ministry Citizens	Power variation Major use renewable Energy community Self-consumption	<b>5</b>
5	Energy community in industrial estate	Business Owners Professionals Balearic Government Industrial associations	Menorca as a pilot Transfer to other islands in case of success	8
6	Decarbonization Policy	Shops, logistics and workshops Hotel Groups	Dissemination of BEST practices	1

