

# **CREATE**

# Report on the results from the workshops on climate Governance in Croatia and Italy

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#### 1. Introduction

This document reports on two workshops held during the CREATE project which aimed at maximizing the awareness about the urgency for climate action and efficiently engaging local stakeholders and all the Institutional subjects that can play a role in future initiatives toward adaptation to climate change in Adriatic coastal regions. During two workshops, one held in Split and one held in Pescara, good governance solutions implemented during the cluster projects, results achieved in the past and recommendations for efficiently planning and implementing climate adaptation actions have been discussed. The workshops addressed regional and local Institutions to maximize their efficiency in tackling climate change challenges in coastal regions.

During the first workshop, held in Split in October 2022, discussion focussed on strategies for addressing the impact of sea level rise in coastal communities along the Croatian coast. Contributions described options for interventions, potential sources from support from national bodies, and EU initiatives as the Covenant of Mayors, and criticalities for specific forms of intervention for reaching multiple objectives, in particular protecting beaches, which are the key resource for the local tourist-based economies using forms of intervention which protect underwater biodiversity.

During the second workshop, held in Pescara in March 2023, mainly experiences and criticalities connected to the drafting of local adaptation strategies and their implementation have been discussed, including issues and cooperation strategies related to the lack of human resources in particular in small local administrations, difficulties in reaching political consensus for adaptation plans and lack of data which is needed for planning for a future climate.



## 2. Governance Workshop, Croatia, Split, 21th October 2022

## 2.1. Agenda

09:45 – 10:00	Registration & Welcome coffee		
10:00 – 10:15	Opening: Welcome notes	Stipe Čogelja Deputy County Prefect, Split- Dalmatia County	
10:15 – 11:30	Panel 1: Coastal Plan Adaptation Challenges	Moderator:  Martina Baučić  University of Split, Faculty of Civil Engineering, Architecture and Geodesy	
	Panel Discussion with:  Matea Dorčić, Administrative department of Tourism and Maritime affairs, Split Dalmatia County Daria Povh Škugor, PAP/RAC Branka Pivčević Novak, Ministry of Economy and Sustainable Development / Directorate for climate activities / Service for general climate protection policy Gojko Berlengi, architect and urban planner Sanja Slavica Matešić, Department for Environmental Protection, Spatial Planning, Construction and Communal Affairs, Šibenik-Knin County Mili Novak, Public Institution RERA S.D. for Coordination and Development of Split Dalmatia County Gorana Jelić Mrčelić, University of Split, Faculty of Maritime Studies		
11:30 – 12:00	Networking and coffee		
12:00 – 13:15	Panel 2: Sustainable Beach Management through Beach Replenishment – questions and dilemmas	Moderator: Veljko Srzić University of Split, Faculty of Civil Engineering, Architecture and Geodesy	
	Panel Discussion with:  Ivana Krstulović Baković, Association for Nature, Environment and Sustainable Development Sunce  Maja Krželj, University of Split, University Department of Marine Studies Ranko Blažević, Municipality of Sutivan Petra Radić, Municipality of Podgora Andrijana Dedić, Municipality of Podstrana Ivana Birčić, University of Split, Underwater Research Club		
13:15 – 14:15	Group picture & Lunch		
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## 2.2. Workshop report Split

The first "Governance Workshop", in cooperation with other project partners, was organized by Split-Dalmatia County, partner of the CREATE cluster project, which unifies the results of implemented Interreg projects on climate change in order to offer answers to a number of questions, and in particular:

"What needs to be done **NOW** to minimize the expected damage to people, property and nature due to rising sea levels."

As a consequence of this priority question, sustainable management and beach replenishment were the main topics of the workshop on climate change management in coastal areas.

The workshop was primarily addressing representatives of coastal local authority units from Split-Dalmatia County who discussed the challenges of adopting and implementing the Coastal Plan of Split Dalmatia County through two panels and the issues and dilemmas of sustainable beach management through their replenishment.

In addition to project partners, representatives of the towns of Split, Kaštela, Trogir, municipality of Okrug, Podstrana, Sutivan, Podgora, Marina participated in the workshop as well as representatives of the Ministry of the interior-Directorate of civil protection; Ministry of Economy and Sustainable Development/Directorate for Climate activities; Public institution- Spatial Planning Institute of Split Dalmatia County; Councillor of the Split Dalmatia County Assembly, Public institution RERA SD; Development Agency of Kaštela, Croatian Chamber of Economy, "Sunce"-Association for Nature, Environment and Sustainable Development; University of Split-Underwater Research Club, "Healthy City" Association and the private sector.



## 2.2.1. Panel 1: Coastal Plan Adaptation Challenges

This panel was moderated by Martina Baučić, *University of Split, Faculty of Civil Engineering, Architecture and Geodesy* and with the participation of **Matea Dorčić,** *Administrative department of Tourism and Maritime affairs, Split Dalmatia County;* **Daria Povh Škugor,** *PAP/RAC;* **Branka Pivčević Novak**, *Ministry of Economy and Sustainable Development/ Directorate for climate activities/Service for general climate protection policy;* **Gojko Berlengi,** *architect and urban planner;* **Mili Novak**, *Public Institution RERA S.D. for Coordination and Development of Split Dalmatia County* and **Gorana Jelić Mrčelić** from *University of Split, Faculty of Maritime Studies*.



Branka Pivčević Novak presented the legislative framework in Croatia, and explained what is needed for the adoption of Coastal Area Management Plans, what has come into force and what are the resulting obligations of local authorities. Joint regulations are adopted at the EU level, the state integrates them into its legislation, and then there is communication with local public authority -the JLS and how to integrate these obligations. At the national level, we have the Law on Climate Change and Protection of the Ozone Layer. Two strategies emerged from that Act, the Strategy for Low-Carbon Development and the Strategy for Adaptation to Climate Change as well as Action Plans. Counties and local authority units must integrate these adaptation measures into their strategic plans. We also have the Law on the System of Strategic Planning and Development Management.

The Ministry of Regional Development organizes workshops for local authority units on how to implement this strategic planning system. The same is necessary due to the large number of adopted documents, and it is the local self-government unit that must select measures for its plan from these documents. She also introduced the participants to the initiative of the European Commission "Agreement of Mayors". The Covenant of Mayors initiative aims to engage and support cities and towns to commit to reaching the EU climate mitigation and adaptation targets.



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The Covenant of Mayors has more than 10,000 signatories who receive technical support and financial guidance for the development and implementation of energy and climate plans that contribute to limiting global temperature rise to 1.5°C, the most ambitious goal of the Paris Climate Agreement. She warned that climate change has already caused the air temperature to rise by 1.2 degrees Celsius, but that the Mediterranean is warming and will warm 20 percent faster than the rest of the world, which will have consequences for both the economy and eco-systems. On the EU scale, Croatia loses 0.25 % of its GDP to repair damages caused by climate change, because extreme climate events are enhanced by climate change. The question is whether these funds, which are spent solely only on damage repair, could be invested better in damage prevention, because when talking about adaptation, we are talking about prevention, that is, strengthening the resilience of our society, agriculture, tourism and energy system to climate fluctuations and temperature rise. She stated that the Ministry of Economy and Sustainable Development published a public call for counties and large cities to prepare a climate change adaptation program. In cooperation with the Environmental Protection Fund, a public call for co-financing measures from these programs was published. With these instruments, the ministry is trying to encourage activities by counties and local authority units.

To a question from the audience regarding the additional digititalization of the spatial planning information system through the so-called e-inspection, based on current satellite images of changes in space, she answered that there is political will for a digital and green Croatia. She encouraged representatives of local and regional local authority unite to lobby through cities and municipalities associations and the counties union.

Gorana Jelić- concluded that it is necessary to take a multidisciplinary approach to the preservation of the coastal belt, and even consider the possibility of establishing courses at university level for students of construction, architecture, law, in the Faculty of Science Split (PMF) and all other interested parties to improve knowledge and create capacities for sustainable management of coastal zones and adaptation. She pointed out that collaborating to the monitoring of the Split Dalmatia County Coastal Plan helped students apply their knowledge in an area they are familiar with, an area in which they live and see for themselves what is needed to make smart decisions, and it is a great idea for students to get involved, if not in the creation, at least in the monitoring creation of coastal plans.







Mili Novak- presented the Management Plan for the coastal area of the city of Kaštela, the adoption of which he contributed to as a city councillor. Two pilot areas were selected for its creation, the area of the Jadro river and the area of the Kastela Bay. The Jadro River supplies with drinking water more than 300,000 inhabitants, while the city of Kaštela has 40,000 inhabitants, one of the most exposed cities from the sea and the land. The plan identified problems such as insufficient infrastructure, which is not a consequence of climate change but of insufficient investment. Big pressures on natural resources and protected cultural heritage, coastal erosion and the possibility of losing certain beaches and habitats and endangering the ecosystem have been observed. The Ministry of Culture, Croatian Waters, Vodovod i Kanalizacija d.o.o., spatial planners, ecologists and other actors were

involved in the development of the plan. 7 thematic workshops were held for the public. He emphasized the importance of a participatory approach and the generation of plan measures in the budget.

**Daria Povh** presented a definition of the word "Governance" for which there is no word in our language. The definition was reached through the ADRIADAPT project.

"Governance is made of relations among institutions, processes and customs which define how the power is implemented, ways of taking decisions on subjects of public as well as private interest, and the ways how citizens and



other actors give their votes. More concisely – governance decides who has power, who takes decisions, how other actors get their voice to be heard and how the effects of the implemented decisions are evaluated".

This includes building of confidence, relations, support by the local community, and implementation of agreed plans and programmes. Governance implies both tangible and intangible ways and processes needed to take and implement decisions. Thus, in its core, it is made of various boards and councils because through them it is easiest to link governance with management." She expressed her optimism regarding the implementation of the SDC Coastal Plan and concluded that it is a job for the entire political and academic community, the civil sector and every individual who has a spatial unit that enters the coastal zone. She also announced to those present the award for "governance" as part of the "CREATE" project.





**Matea Dorčić** spoke about the purpose, goals and implementation of the Plan for the Management of the Marine Environment and the Coastal Area of the Split-Dalmatia County. She emphasized the need to build trust in a two-way communication. She stated that in 2020, they won the prestigious award of the Croatian Association for Public Relations in the project category of local and regional authority units for the project "*Pomorsko je dobro*".

She believes that it is extremely important that decision makers are involved and informed. She presented examples of financing through county programs, on the one hand, financing measures intended for adaptation to climate change, creation of spatial planning documentation, organization of seminars, education on raising awareness of climate change, protection of maritime assets, and on the other hand, financing measures for rehabilitation.

**Gojko Berlengi**, a panelist with many years of experience in creating spatial plans at all levels, answered to the question of what the spatial plan of a local authority unit as an implementing act means in the context of coastal plans, which are not a legal obligation, and how spatial plans can be a tool for the implementation of coastal plans.

He concluded that there have never been more strategic documents and that there is space for improving the quality of



these documents. He praised the existence of a strategic planning framework in Croatia, but also pointed out the lack of addressing the specific problems of individual regions as well as the lack of multidisciplinary. As an example, he presented the Croatian Tourism Development Strategy, which does not give a concrete answer on how to solve problems, but instead leaves the design and implementation of solutions to the local self-government units through their spatial plans. In fact the Croatian national strategy provides general guidelines, and given the great diversity on the territory of the Republic of Croatia, design and implementation of local strategies is left to such decisions to be made as part of the spatial arrangement plan of the local community. He believes that strengthening resistance to climate change and adaptation measures must be largely included in spatial plans. To the question: have we rebuilt the coast, he answers: How haven't we!? He warned that 3.5 kilometres of SDC coastline are being urbanized annually. He added that according to the National Plan for Resistance to Climate Change, Croatia will have 4.5 billion for the development of green infrastructure, part of which certainly belongs to this area. For this, it is necessary to prepare quality projects that will strengthen the coastal resilience to climate change.

To a question from the audience, he answered that he considers it is necessary to have adequate financial penalties for illegal interventions in space.



# 2.3. Sustainable Beach Management through Beach Replenishment-

## questions and dilemmas

This panel was moderated by **Veljko Srzić**, University of Split, Faculty of Civil Engineering, Architecture and Geodesy. The panel discussion participants were: **Ivana Krstulović Baković**, Association for Nature, Environment and Sustainable Development Sunce; **Maja Krželj**, University of Split, University Department of Marine Studies; **Ranko Blažević**, Municipality of Sutivan; **Petra Radić**, Municipality of Podgora; **Andrijana Dedić**, Municipality of Podstrana and **Ivana Birčić**, University of Split, Underwater Research Club.



**Ivana Krstulović Baković** sees part of the problem in a panel title. She believes that, given the specific form and management of the Croatian coastline, a well-designed beach does not need to be replenished. She stated that in practice she often witnesses that under the term beach replenishment the term filling is hidden. She believes that the existing legislation does not provide an answer to the definition itself or guidelines on which material to use. There is no clear guidance on how to manage city beaches.

**Maja Krželj** emphasized the characteristics of the Adriatic Sea as a very sensitive closed system with of strong interaction between man

and the environment on the coastline. The consequences of climate change are visible, such as sea level rise and increasingly stronger and more intense storms, resulting in larger waves, and consequently greater beach erosion can be expected. She stated that in the program period 2021-2027, a lot of focus is given to climate change, but also to the preservation of biodiversity. She believes that coastal protection measures must be implemented to reduce erosion, but the protection of biological diversity must not be forgotten.





Ranko Blažević stated that for many years, as a local unit, beach replenishment was carried out in an irregular manner. Today, we believe that there is a way to beach replenishment without it colliding with sustainable management.

To the question: how much do we need the mechanisms defined by the Environmental Impact Assessment Regulation, he answered that he believes that they are expensive and long-lasting demanding procedures which are too long for a single political mandate.



**Petra Radić**- believes that one of the measures could be the dispersion of the beach load. This would be achieved by increasing user information about existing beaches, which are not central city beaches. This would reduce the need for beaches replenishment. Furthermore, she sees the solution in increasing the quality of tourist services instead of quantity and by strengthening the demand for the construction of additional services by hoteliers.





**Andrijana Dedić** stated that, as a municipality, they are obliged to maintain the beaches according to the plan for the management of maritime resources

approved by the competent institutions. In the municipality of Podstrani, the beach is maintained using fine stone aggregate, which is a natural material. It is dosed in such a way as to preserve the face of the beach without increasing its dimensions. It is not easy to achieve the sustainability of coastal zone management in any case. She concluded that today's workshop contributes to achieving a balance between the needs of tourism and the need to preserve the sea and the natural environment.



Ivana Birčić- presented her experiences and role in beach management. She stated that her organization usually is invited to the field after beach filling. She presented negative examples of beach filling in two local units. In one, construction material/waste was used. In the other, material with a large percentage of soil was used. When the soil enters the marine environment, it simply covers everything in that area, and later, it is distributed by sea currents covering Posidonia meadows, disrupting the biocenosis of infralittoral algae, which play an important role in the primary production of oxygen. She cited positive examples of beach replenishment from Nice, Cannes and Bol on the island of Brač.





Matea Dorčić- As a positive example, she cited the example of the municipality of Podgora, which, in cooperation with SDC, began to prepare an urban-architectural competition for Sutikla beach to find a solution for a quality concession for the benefit of all residents, as well as their guests. As an example of good practice, she cited the beach replenishment with river pebbles.

She added that it is very difficult to stop the beach filling because we do not have an inspection instrument for now, but we can open topics and educate representatives of local self-government units in the way that it should be done correctly. Education, the right information and knowledge is a prerequisite for doing something properly. Regarding the Law on Construction, she stated that she believes that it cannot respond to all the challenges of climate change, but it can regulate some actions that will reflect on the coastal zone.

**Stipe Čogelja**- expressed the hope that the local authority units will understand that beach filling is not done just like that. This can cause great consequences for the flora and fauna, as well as for the attractiveness of the tourist destination. He emphasized that the regional authority is systematically working on this and hopes that in the future there will be fewer cases of coastal devastation.



The arrangement of the coastal zone must be approached

professionally, in detail and with all planning documents. This is the only way we will protect it, and SDC will use its financial and institutional mechanisms to set a common goal together with local authority units, explained Čogelja.



## 2.3.1. Images









## 3. CREATE II Governance Workshop, Italy, Pescara, 31th March 2023

## 3.1. Agenda

9.00 – 9.40	Registration
<b>9.40</b> – <b>9.45</b> ×	Welcome from Abruzzo Region
9.45 – 9.50	Welcome from the Mayor of Pescara – Carlo Masci
9.50 – 10.15	Introduction to the CREATE Project Margaretha Breil (CMCC)
10.15 – 10.30	Coffee Break
10.30 – 11.00	Development and applications of Adaptation Plans – <b>Timothy Brownlee</b> (University of Camerino)
11.00 – 11.20	Best practices and experiences from the Joint-Secap project - <b>Ester Zazzero</b> (Municipality of Pescara)
11.20 - 11.40	Problems and weaknesses in adaptation plans in inland areas, Joint-Secap project - <b>Gilberto Petrucci</b> (Mayor of Penne)
11.40 – 12.00	Problems and weaknesses in adaptation plans in coastal areas, Joint Secap project - <b>Alessandro Valleriani</b> (Councillor for the Environment, Municipality of Silvi)
12.00 – 12.30	Discussion and perspectives
12.30 – 12.45	Conclusions
13:00	Light-lunch



#### 3.2. Introduction

The second "Governance Workshop", in cooperation with other project partners, was organized by the Abruzzo Region, partner cluster of CREATE project. The aim of this project is is to create a systematic overview on the knowledge produced during the implementation of the projects of the ITHR CBC programme, based on an analysis of project results and to describe conditions for transfer of successful approaches to analysis, development and implementation of adaptation measures and forms of climate governance to other systems facing similar problems at the cross-border scale, by harmonising procedures and data standards and bridging knowledge gaps for the final users at trans-boundary level.

The Joint-Secap best practices experienced in the Abruzzo region, focusing on the development of adaptation plans in both inland and coastal areas of this Italian region, have been presented to the CREATE projects, to the students of the programme "Sustainable Habitat Sciences" and to local organization working on climate change. In details, about 66% of the participants were from University of Chieti-Pescara, 9.4% from local municipalities, 17% were partners of the CREATE project and, finally, 3.8% of the participants belong to local organizations focusing on climate mitigation and adaption in the Abruzzo Region related to the regional council and 3.8% to NGO (see Figure 1).

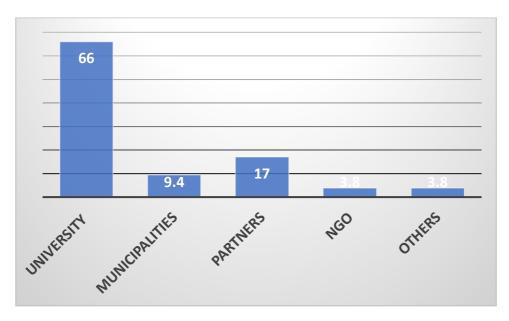


Figure 1: Statistical analysis of the participants to the II CREATE workshop (Pescara, Italy)



In addition to project partners, representatives of the towns of Pescara (Abruzzo, Italy), Silvi (Abruzzo, Italy), Penne (Abruzzo, Italy) and Pescara (Abruzzo, Italy) took part to the workshop sharing with the audience their experience about the adaption plans and the Joint-SECAP project.



Moreover, Timothy Brownlee (University of Camerino, Marche, Italy) gave a presentation about the development and applications of the Adaptation Plans.

Presentations made during the workshop were mainly based on the results obtained within the Joint Secap project. The objective of this project was to provide local authorities with methodological, technical and political tools to plan, design and implement energy efficiency measures and the exploitation of renewable sources and, at the same time, increase urban resilience by adapting public management to the

effects of climate change. The main technical result (output) of the project are the guidelines, developed jointly between the project partners, which will be made available to the participating Municipalities to structure their SECAP/SEAP in the future. The main expected result (impact) of the project will be the participation of the Municipalities involved in the new Covenant of Mayors.

#### 3.3. Contributions and discussion

#### **Armando Lombardi (Abruzzo region)**

Armando Lombardi (Abruzzo region), council of the Abruzzo Region at the Energy and Sustainability office, welcomed us, explaining the origins and organization of the CREATE project and talking about the climate change and how to fight it by acting at the local level.





### Margaretha Breil (Euro-Mediterranean Center on Climate Change)

The first speech was made by Margaretha Breil, who presented and introduced the CREATE project.

The project is piloted in collaboration between two Italy-Croatia, two European Member States bordering the Adriatic Sea. Interreg Italy-Croatia allows regional and local stakeholders to exchange knowledge and experience, develop and implement pilot action products and services, support investments by creating new business models, test the feasibility of new policies, with the ultimate goal of improving quality and living conditions of over 12.4 million citizens residing in the area.

PROJECT THEME. The CREATE project aims to implement studies to understand and find the best solutions for adaptation, in order to try to better tackle the consequences of climate change (in coastal areas in this case) and with the minimum environmental impact. Moreover, the project promotes collaboration for the design and drafting of adaptation plans.

PROJECT OBJECTIVES. The CREATE project goal is to get together all available information to plan for better future of these territories and understand which are the gaps regarding the research of the needed information (especially at local level).



The issues must be clearly explained to everyone, to reach unambiguous consensus; the management of the decisions to be taken must be shared between the government, institutions and citizens.



#### **Timothy Brownlee (University of Camerino)**

The second speech was made by Timothy Brownlee (University of Camerino), who presented the development and applications of adaptation plans.

The project is in collaboration with the JOINT SECAP one. Investments need to be leveraged to properly implement adaptation actions. Currently there is a network of 40 municipalities located on the coasts, which collaborate. People have to be resilient to integrate coordination, coherence and available information as much as possible.

He specified that droughts and scarcity of water resources lead to health and infrastructure risks.

Following a hypothesis of a possible target scenario, 250 measures were highlighted in the areas involved in the project. These measures have been identified through on-site inspections to determine the specific solutions better suitable for each area of interest.

The actors involved in this projected needed to be coordinated in a transversal collaboration, in which the data collected must be shared; as a consequence, a general coordinator was elected.



About the data availability, have been highlighted that one of the biggest obstacles is the lack of usable and well-contextualized data.



#### **Ester Zazzero (Municipality of Pescara)**

The third speech was made by a collaborator of the JOINT SECAP project Ester Zazzero (Municipality of Pescara), which has been supported by the mayor of Pescara Carlo Masci.

Within the JOINT SECAP project, the city of Pescara dealt with the search of common strategies for adaptation to climate change in the coastal areas of the city. The need and importance of adaptation plans has been highlighted. It has been shown that it takes a very long time for a SECAP to get results, time-frames which, as Zazzero explained, do not necessarily coincide with policy cycles and the needs of policy makers to present tangible results in time.

Several eco-districts have been identified in the city of Pescara, based on the different characteristics of the problems of the areas in question.



The path undertaken by the City of Pescara establishes an organic and systematic background for the planning operations that will have to candidate it to become an adaptive city, in which a fundamental aspect is to contain pollution processes and reduce the consumption of non-renewable resources, through the systems of mobility, greenery, land use, integrated management of the water system, separate collection of solid waste and combined production of heat and energy with their treatment using appropriate technologies.

### **Gilberto Petrucci (Mayor of Penne)**



Gilberto Petrucci (Mayor of Penne), explained the problems and weaknesses for the adaptation plans in inland areas, such as the city of Penne, which is equally distant from both the sea and the Gran Sasso. Furthermore, the city is crossed by two rivers (Tavo and Fino). The city has about 11,000 inhabitants, expands for 91 km2 and is 483 m above sea level. Penne faces difficulties such as hydrological disasters, water droughts and fires.

Petrucci highlighted how the Covenant of Mayors, which concerns the JOINT- SECAP policies and planning, is necessary to transform political actions into executive actions of adaptation.

Petrucci described how a small municipality, such as Penne, can address the lack of necessary resources (both financial and human resources) needed to draw up and implement adaptation plans. Small municipalities like Penne can collaborate with neighboring municipalities, integrating resources of their small administrations working together in a cooperation for setting up plans. Penne has done so, participating in the Joint-SECAP projects or similar, and is supporting neighboring administrations with expertise and knowledge.

#### Alessandro Valleriani (Mayor of Silvi)

The fifth speech was made by Alessandro Valleriani (Councillor for the environment, Municipality of

Silvi), which discussed the problems and weaknesses in the adaptation plans for the coastal areas and in particular in Silvi.





Silvi has about 15,000 inhabitants; but it is very important tourist destination reaching more than 100,000 guests in summer. It is mainly located on the coast, but it also includes hilly areas. Valeriani pointed out that the major problems in Silvi, from an environmental point of view concern erosion of the coast and hydrogeological instability, together with floods and droughts. Since most of the coastal municipalities include landslide areas, one of the weaknesses of the adaptation plans is that they are only focused on coastal erosion. On the other hand Valleriani showed that marine protected areas, like the tower of Cerrano area are not only an example of a wonderful area and crystalline sea, but they are important for maintaining biodiversity and to regulate adaptation to climate changes, as the unmanaged coast is proving to be more resilient to erosion than other parts of Silvi's coastline. He concluded his speech underlining that we were already late for planning about climate mitigation and adaptation, which means that decisions have to be quickly made and applied.

## 3.4. Images



















