

The PORT NOISE ANALYSIS and CONTROL in INTERREG ITALY-FRANCE MARITIME PROGRAMME

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Interreg IT - FR Maritime Programme



The Programme

The Interreg Maritime Italy-France Programme 2014-2020 is a cross-border programme co-financed by the European Regional Development Fund (ERDF) in the framework of European Territorial Cooperation (ETC). The main objective is to contribute to cross border cooperation between the designated territories to making this area a competitive, sustainable and inclusive area in the European and Mediterranean landscape.

- Corsica** Entire Region
- Liguria** Entire Region
- PACA** Maritime Alps | Var
- Sardinia** Entire Region
- Tuscany** Grosseto | Lucca | Livorno | Massa Carrara | Pisa

6,5 mln People involved

199.649.898 € Financing

More than 70 funded projects

Cooperation between regions

The Projects regarding port noise

In North Tyrrhenian sea, port noise affects the development of harbour cities on both French and Italian coasts. Tourism, goods transportation and passenger traffic are increasingly limited by noise impact on port cities, which annoys residents and disturbs the sleep of the exposed population. Therefore, the EU has promoted a coordinated action to control and reduce port noise in the area through the IT-FR Maritime programme, with an investment of more than 9 Mln €. Organisations and public institutions from Tuscany, Sardinia, Corsica, Liguria and PACA are sharing this ambitious programme aiming to harbour noise control. Six projects have been funded to develop a recovery strategy and promote collaboration between port stakeholders. Report, Rumble, Monacumen, Decibel, List and Triplo are all projects covering different aspects of port noise in the framework of a coordinated policy over a specific area.

More than 9 mln € funded regarding Port Noise

Coordinated strategy about port noise

6 Projects

Report modelling and impact prediction

Rumble deals with large commercial ports

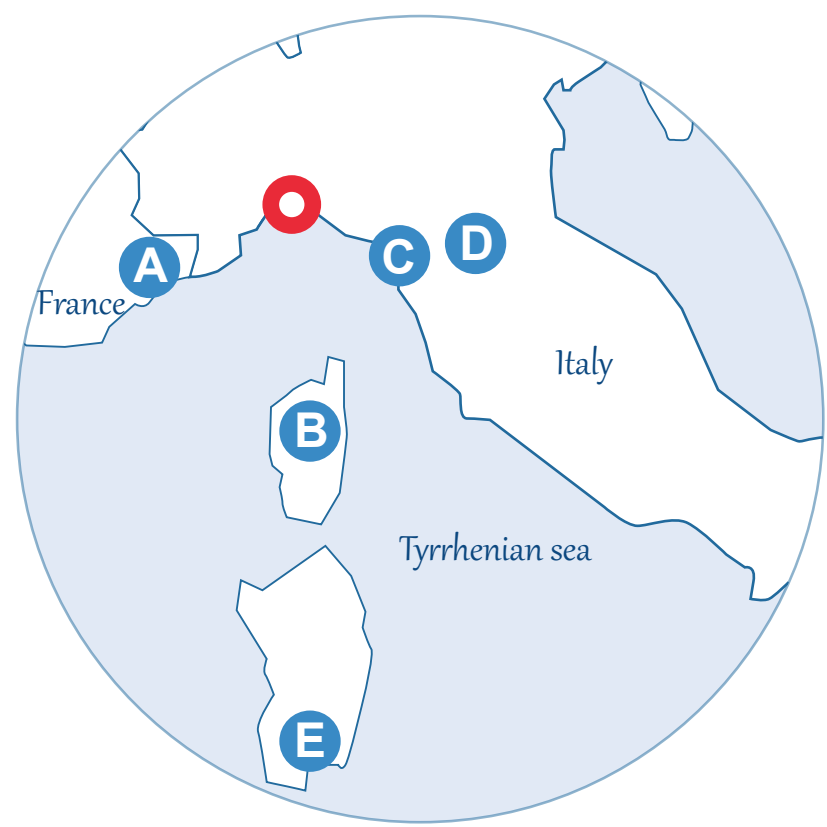
Monacumen measurements and characterisation

Decibel small touristic harbours

List noise from traffic generated by ports

Triplo reaction of the exposed population

REPORT



- Project leader**
- University of Genoa
 - Centre Scientifique et Technique du Bâtiment
 - Université de Corse Pasquale Paoli
 - University of Pisa
 - Agenzia Regionale per la Protezione Ambientale della Toscana
 - University of Cagliari

The Project

Ports overlooking the Mediterranean are often surrounded by densely populated urban areas impacting the noise generated by port sound sources.

Therefore numerical simulations and the new algorithms and methodologies are designed to outline and define the best common strategies for the abatement of the noise pollution, which are by their very nature general and therefore designed to be applicable and replicable in every port reality. This allows, therefore, to guarantee the sustainable development of commercial ports and associated logistic platforms, ensuring their growth and expansion, while at the same time limiting the impact on the surrounding urban population, whose sensitivity in the field of noise pollution is ever increasing. Scientific bodies and local public bodies will benefit from the project outputs in several aspects dealing with noise pollution successfully.



734,085.31 € budget

Duration 36 months 3/2018-2/2021

Main goals

The long-term general objective of REPORT (*Rumore e PORTi - Noise and Ports*) is the mitigation of sound emissions from ports in the area of cross-border cooperation to make port infrastructures more sustainable in the eligibility area of the IT-FR Maritime programme. This can be achieved through the creation of a specific approach to the correct management of noise that is currently missing in the regulatory system. This methodology aims to be implemented and integrated within the 2002/49/EC Directive which does not specifically require an assessment of the noise emitted by ports.

Creation of a joint model for reducing noise pollution

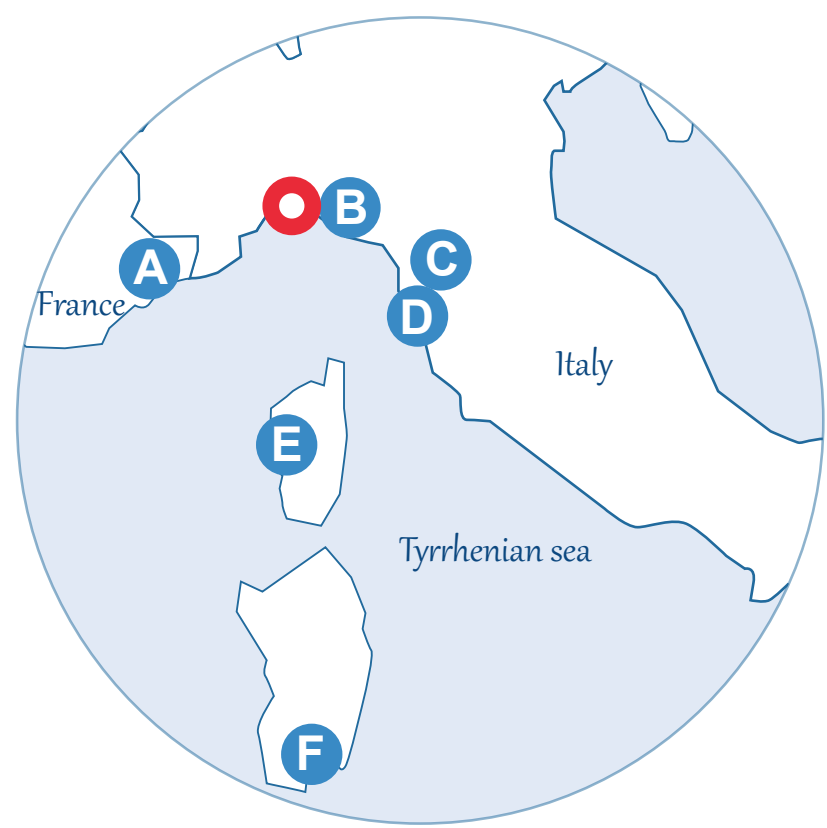
Sustainable development

Replicability of the methodologies

Benefits for scientific and local public bodies

Modelling of noise impact of ports

RUMBLE



- Project leader**
- Liguria Region
 - Métropole Nice Côte d'Azur
 - University of Genoa
 - University of Pisa
 - Port authority of Livorno /Authority of port system in North Tyrrhenian sea
 - Office des Transports de la Corse
 - Port System Authority of the Sardinian Sea

The Project

With Rumble the intent is to respond to a deeply felt environmental problem in the area of cross-border cooperation, where there are many ports inserted in the urban context. The project initially envisaged the implementation of an acoustic climate survey to identify the most critical areas and activities. Subsequently, small noise mitigation interventions were carried out, which were to be monitored in itinere and ex-post. The first year of the project was therefore dedicated to reconstructing the state-of-the-art picture on the noise generated by large commercial ports in the area of cross-border cooperation.

The next project period will instead be dedicated to checking the impact of the infrastructures implemented. RUMBLE is also part of a network of maritime noise projects that develop a complementary and integrated approach to the issue.



1,906,984.24 € budget

Duration 36 months 4/2018-3/2021

Main goals

The main objective of RUMBLE (*Réduction du bruit dans les grandes villes portuaires dans le programme maritime transfrontalier - Noise reduction in large port cities in the cross-border maritime programme*) project is to improve the sustainability of commercial ports by contributing to the reduction of noise pollution in the Maritime programme cooperation space. Moreover the project aims to improve the monitoring of sound sources due to noise pollution in commercial ports and to deploy small infrastructures to try to reduce the main sources of disturbance for the population living in neighbouring urban areas.

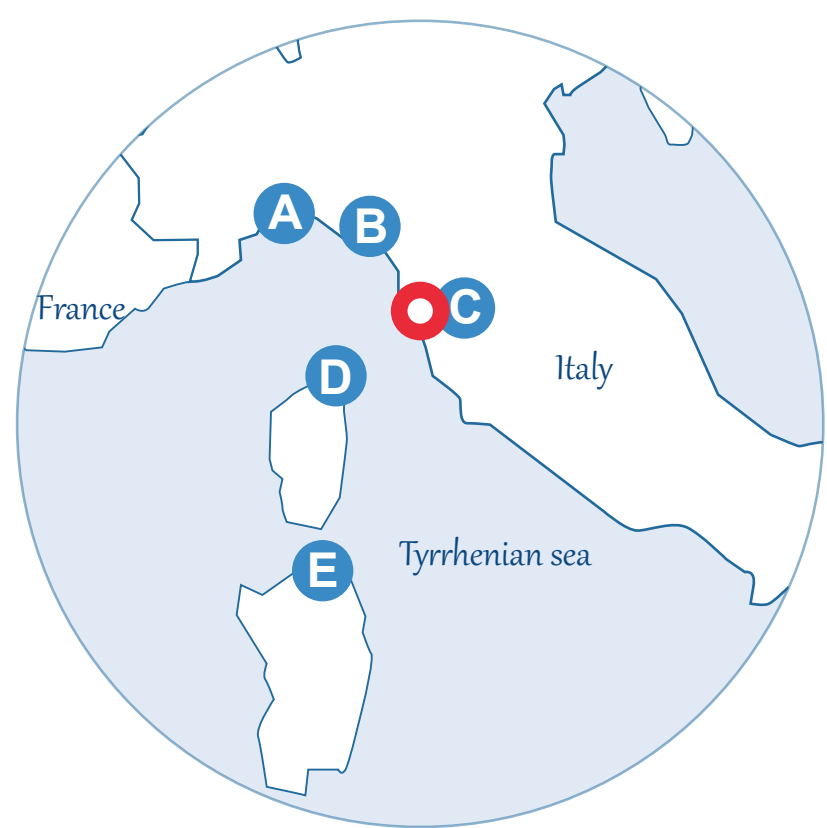
1. Surveys
2. Mitigation interventions
3. Monitoring

5 ports

Improving environmental quality

Reducing noise pollution

MON ACUMEN



- Project leader**
- Port Authority of Livorno
 - University of Genoa
 - Port System Authority of the Eastern Ligurian Sea
 - Regional Agency for Environmental Protection in Tuscany
 - Chambre de Commerce et d'Industrie de Bastia et de la Haute-Corse
 - Port Authority of Cagliari

The Project

The project deals with planning and acoustic control in commercial ports of La Spezia, Livorno, Cagliari and Bastia, indeed these sites present numerous residential neighbourhoods close to significant noise sources. MON ACUMEN has realised the first network of monitoring and control of noise pollution generated by ports in cross-border areas. This network consists of investments in devices installed in commercial ports and the related software part of environmental monitoring systems. The added value of this project consists in the fact that it allows not only to design and set up acoustic detection systems in compliance with national and European standards, but also to compare and classify data in useful information for transport policy both in Italy and in France.



1,830,049.99 € budget

Duration 36 months 3/2018-3/2021

Main goals

The objective of the MON ACUMEN (*MONitorage Actif Conjoint Urbain-MaritimE de la Nuisance - Joint active maritime noise monitoring*) project is to reduce the noise impact in the commercial ports of the cooperation area (Livorno, La Spezia, Cagliari and Bastia) by developing a common analysis methodology of the acoustic description and noise detection, a shared design of the monitoring systems and a unitary collection and verification of the data collected, necessary for an effective planning, as required by Directive 2002/49 / EC.

First network of monitoring and control noise pollution

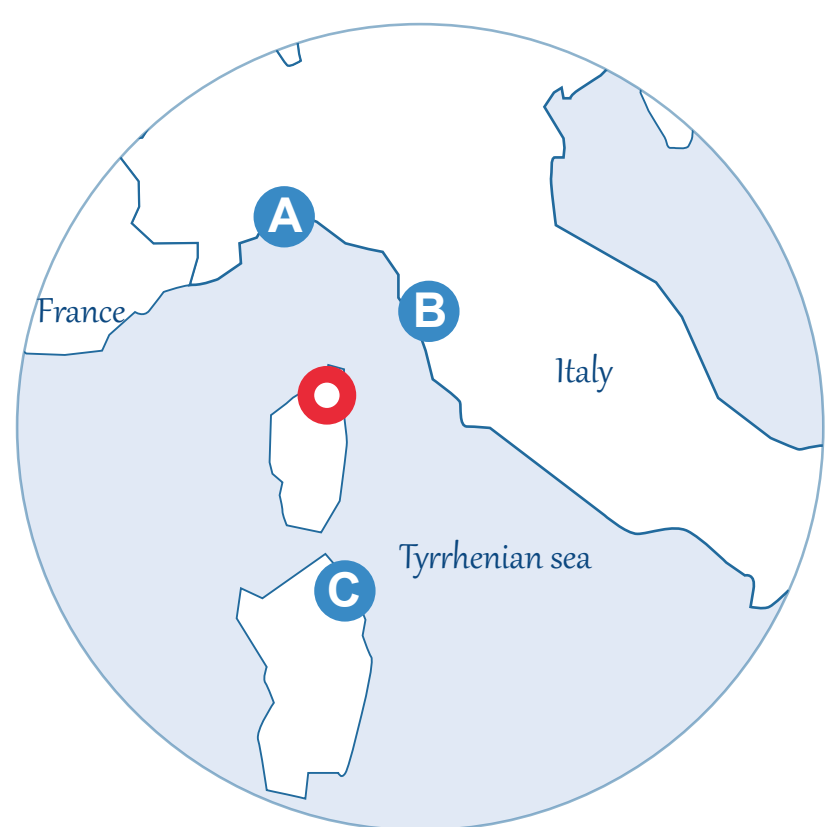
Helping transport policy

Comparing and classifying data

Measurements of noise emission in ports

Reducing noise pollution in commercial ports

DECIBEL



- Project leader**
- Chambre de Commerce et d'Industrie de Bastia et de la Haute-Corse
 - University of Genoa
 - National Association of Italian Municipalities Section Tuscany Region
 - Olbia Municipality

The Project

The DECIBEL project responds to the challenge of improving the connection of territories and the sustainability of port activities. DECIBEL also aims to improve the sustainability of commercial ports and logistics platforms as it is to reduce noise pollution. The particularity of the DECIBEL project is therefore to act on tourist ports (marinas), even small ones, to evaluate the noise impact and what strategy to adopt to contain it. This is a highly innovative topic and has not been analysed so far. It is commonly believed that the small size of the port corresponds to a limited sound pollution; this is contradicted by reality, since very often in the case of marinas the urban fabric is immediately close to the port area, with a greater interaction and disturbance.



1,652,053.22 € budget

Duration 36 months 6/2018-5/2021

Main goals

The main objectives of the project DECIBEL (*Dépollution acoustique des centres portuaires urbains et insulaires - Acoustic remediation of urban and island port centres*) are: a) studies and diagnostics of noise emissions in tourist ports (marinas) in the cooperation area. b) definition of a common strategy and a common action plan to reduce noise pollution. c) implementation of transferable pilot actions. d) creation of a guide to good practices and their extension to remote areas.

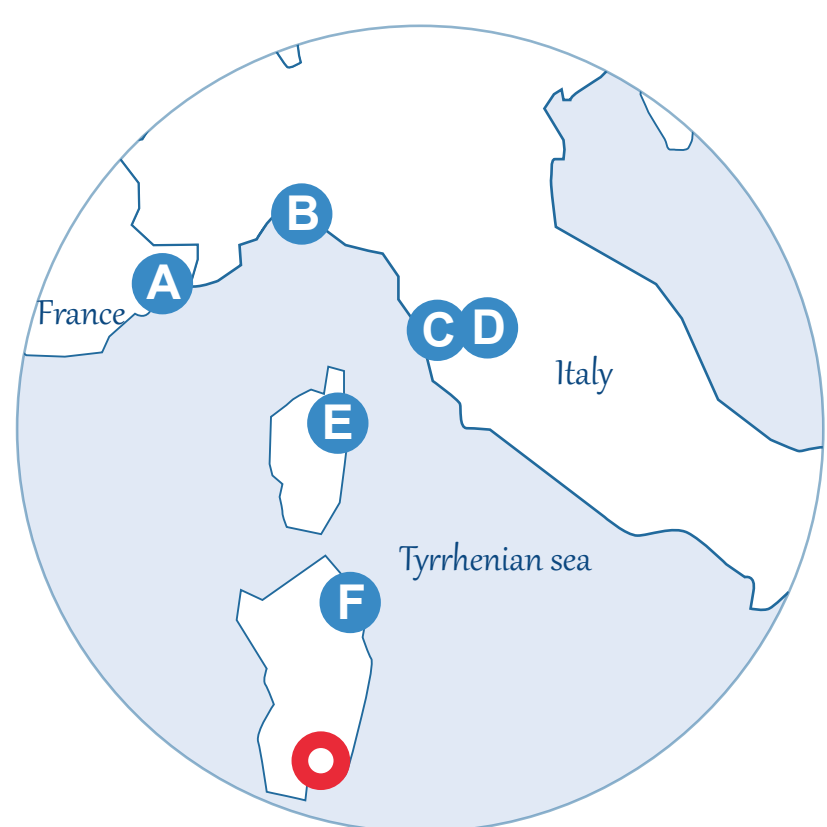
Coastal cities

Definitions of strategies to contain noise

Small touristic harbours

A guide of good practices

L.I.S.T. PORT



- Project leader**
- University of Cagliari
 - GIP Fipan
 - National Association of Italian Municipalities Section Liguria Region
 - University of Pisa
 - National Association of Italian Municipalities Section Tuscany Region
 - Chambre de Commerce et d'Industrie de Bastia et de la Haute-Corse
 - Olbia Municipality

The Project

The common challenge for L.I.S.T. Port partners is to identify, through a common approach and system, the most effective actions to mitigate traffic noise generated and attracted by the port node. Specifically, the project consists of two macro-activities: a) studies aimed at the elaboration of transport/environment simulation models b) Realization integrated system ITS. The final beneficiaries will be residents and visitors in the port cities, while the second level will be the port operators who can count on optimal management of access to the port and a more effective management of internal traffic.



1,907,036.53 € budget

Duration 36 months 5/2018-5/2021

Main goals

The L.I.S.T. Port (*Limitazione Inquinamento Sonoro dal Traffico nei porti commerciali - Traffic sound pollution limitation in commercial ports*) project aims to improve the sustainability of commercial ports and related logistic platforms, contributing to the reduction of noise pollution. Therefore, the challenge of LIST-PORT is to improve the "Acoustic Climate" of port cities through the use of integrated ITS systems of traffic management. The general objective is to evaluate how these systems affect the reduction of traffic volumes and consequently the sound pressures in the port and urban area.

Simulation models about transport and environment

Mitigate traffic noise from ports

Improving sustainability of commercial ports and logistic platforms

Use of ITS (Intelligent Transportation System)

TRIPLO



- Project leader**
- Lucca Province
 - Chambre de Commerce et d'Industrie Territoriale du VAR
 - National Research Council
 - Lucense Scarl
 - Port Authority of Livorno
 - Confindustria center north Sardinia

The Project

The focus of the TRIPLO project is the improvement and sustainability of commercial ports and related logistics platforms, through the reduction of noise pollution. The attention is focused on the induced acoustic impact of the port and in particular of the back-port logistics areas or connected to the ports. What is more, the acoustic remediation actions must be targeted and adapted to the characteristics of the source. In addition to a preliminary analysis, linguistic and physical parameters will be acquired. On the basis of the data collected, the most suitable solutions to reduce noise pollution will be found. After the identification of a strategic plan, the project will end with 4 Workshop outlining possible models of governance.



1,203,783.95 € budget

Duration 30 months 3/2018-8/2020

Main goals

The project TRIPLO (*Trasporti e collegamenti Innovativi e sostenibili tra Porti e piattaforme Logistiche-Innovative and sustainable transport and connections between ports and logistic platforms*) stems from a common problem: the high level of noise pollution that affects the areas between ports and logistics platforms. The general objective is to develop a cross-border strategy to reduce noise pollution in these areas by adopting models for the regularisation of traffic flows to be applied to the movement of goods on land. In fact, noise pollution in these areas does not only derive from port activities, but also from related logistics activities.

Identification of a joint strategic plan

Regularisation of traffic flows

Reaction of the exposed population

Assesment of port noise impact

Improving sustainability of commercial ports and logistic platforms

CONCLUSIONS

We have currently reached a certain development of the different projects, which, after the first start-up phase, are now achieving the first results. Measurement campaigns have been launched, as well as the implementation of the interventions defined during the planning phase. Port noise modelling is in progress and at the same time we are working on developing knowledge of the phenomenon and adequate databases and calculation algorithms. At the end of the various activities envisaged, a concentration of skills and activities in the field of port noise will be achieved, such as to represent a unique case at an international level.

What do we expect?

Strengthening of cross-border cooperation

Reducing noise pollution

Improve sustainability of ports

Promoting acoustic remediation

Improving people's lives

A permanent core of knowledge to support IT-FR border area and the whole EU

