

## CIVIC MONITORING

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### MONITORING REPORT

Country  
Portugal

Partner  
Mindshift Talent Advisory

#### STEP 1

DESK ANALYSIS

### BASIC INFORMATION

#### Project URL

<https://www.aml.pt/index.php?cMILID=SUS57DBF730B9CE4&cMILL=2&mIID=SUS57DBF715519A0&mIN=POSEUR&mILA=&cMILID1=SUS5787A2442781D&mIID1=2&mN1=Fundos%20e%20Financiamentos&cMILID2=SUS57DBF730B9CE4&mIID2=SUS57DBF715519A0&mIN2=POSEUR>

#### Project title

Implementation of a tsunami warning and alert system in the Tagus estuary  
*Implementação de um sistema de aviso e alerta de tsunami no estuário do Tejo*

#### Dimension

170.820,35 EUR

#### Programming period

2018-2021

#### Funding programme

Fundo de Coesão  
Portugal 2020  
Programa Operacional Sustentabilidade e Eficiência no Uso de Recursos  
(Operational Programme for Sustainability and Efficient Use of Resources)

#### Funding programme

Monitoring of the "Implementation of a tsunami warning and alert system in the Tagus estuary" project

#### Author of the report

Monitoring for Europe – Mindshift

#### Description of the project monitored

Based on  
the Monithon  
methodology



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The “Implementation of a tsunami warning and alert system in the Tagus estuary” project funded under the **PO SEUR** - Operational Programme for Sustainability and Efficient Use of Resources, established through an Execution Decision from the European Commission on December 16, 2014 and is one of the 16 programmes created for the operationalization of Portugal 2020 Strategy (a partnership agreement established between Portugal and the European Commission that gathers the action of 5 European Structural and Investment Funds - ESIF, Cohesion Fund, ESF, EAFRD and EMFF - in which the programming principles are laid down and mark the economic, social and territorial development policy to be promoted in Portugal between 2014 and 2020). The PO SEUR - Operational Programme for Sustainability and Efficient Use of Resources wishes to specifically contribute to the sustainable growth priority, addressing the transitional challenges to a low carbon economy based on a more efficient use of resources and on the promotion of greater resilience to climate risks and catastrophes.

The project was applied under the themes “Sustainability and efficient use of resources: promoting climate change adaptation, risk prevention and management”. The project was promoted by Área Metropolitana de Lisboa (Metropolitan Area of Lisbon) [ [www.aml.pt](http://www.aml.pt) ] involving the municipalities of Lisbon [ [www.cn-lisboa.pt](http://www.cn-lisboa.pt) ] and Cascais [ [www.cascais.pt](http://www.cascais.pt) ].

This was a pilot project aiming at developing a tsunami warning and alert system, based on a set of actions to strengthen the national warning system, and the development of a warning system for the population, focusing on effective communication systems and awareness raising and education of the population, modernising the response capacity of local civil protection services.

The project main goals are, to inform the public about the dangers of a tsunami, in order to make it more prepared; and to capacitate citizens in recognising the warning signs of an imminent tsunami; inform and train citizens to recognise the evacuation routes to higher areas and promote ways to help children, the elderly and/or people with reduced mobility.

The project main actions consisted of:

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- The installation of various informative electronic equipment, capable of disclosing the risks of a possible tsunami alert and informing the population on which measures to take. These equipment's are located in Lisbon at Praça do Império and in Cascais at Baía de Cascais and Carcavelos.
- Installation of warning sirens, located in Lisbon at Praça do Império, Belém and Ribeira das Naus, and in Cascais at Teatro Gil Vicente, Praia de Azarujinha and Passeio Marítimo do Estoril.
- Signs placing with all the evacuation routes and meeting points;
- Carrying out actions of information and awareness-raising amongst the population.
- Carrying out simulation exercises to the effectiveness of the whole system.

The goal of bringing awareness to a tsunami risk in the Metropolitan Area of Lisbon is very important seeing as though, much empirical evidence has shown that this area presents itself as one of the most vulnerable in Portugal. In spite of this, many researchers (Mendes & Freiria, 2012) (Firmino, 2013) have shown that the perception of tsunami risk along the Portuguese population is very low, even among those who live in areas most likely to be affected.

Is the project part of a wider intervention plan? If yes, what is the overall objective of this plan?

This project is only a pilot project and is part of a set of actions to strengthen the national alert system. In a first stage, it was set up in Lisbon and Cascais, but several other municipalities have shown interest in installing it in their coastal areas, such as Setúbal and Loures. The goal would then be to cover and protect all the coastal areas bathed by the Tagus River.

#### Location of the project

##### Lisboa

[Praça do Império](#)

[Ribeira das Naus](#)

##### Cascais

[Teatro Gil Vicente](#)



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[Estoril \(Passeio Marítimo\)](#)

[São João do Estoril \(Praia da Azarujinha\)](#)



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### STEP 2

PROJECT EVALUATION

## EVALUATION

### Project status based on the collected information

The project has been concluded by the promoter (Área Metropolitana de Lisboa), and the main actions have been also implemented in the municipalities of Cascais and Lisbon.

### How the project is progressing based on the information you have collected - Result of the project - If the project is finished, what result did it achieve?

The project is considered to be implemented, with the following results:

- Installation of informative electronic equipment (MUPI) to inform the population of the risks in the event of a *tsunami* warning and the measures to be taken
- Installation of warning sirens
- Placing signs with evacuation routes and meeting points
- Carrying out information and awareness-raising activities
- Carrying out simulation exercises to test the effectiveness of the whole system

Although the implementation period (6-04-2018 to 30-04-2021) is officially over, due to the importance of the thematic and the implications it might have on the citizens life, some of the awareness-raising campaigns are still in place. We were informed by some of the technicians we interviewed that now that the project has been physically executed, it is time to promote such activities. In most cases, those activities are conducted by the civil protection services, like the Serviço Municipal de Proteção Civil da Câmara Municipal de Lisboa who has been implementing pedagogical activities for both young and adult citizens on



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different civil protections themes including earthquakes and self-protection behaviours and measures before, during and after an earthquake.

If the project is finished or you have been able to assess some of its results anyway, what is your judgement about the effectiveness of the project?

- Harmful - Only negative consequences
- Useless - A waste of public Money
- Useful but also shows some minor problems
- Useful and effective
- It hasn't produced any results yet

Strong points (what did you like about the monitored project?)

The project has a very appealing thematic that may capture the attention of citizens and municipalities, not only because of its preventive character, but also because of its an unusual and not current topic. At the same time, it corresponds to a very technically advanced project since the main preventive instruments have already been implemented.

Another strong point of the project is the excellent technical preparation of the civil protection teams of both the Cascais and Lisbon Municipality All the technicians we interviewed are well informed and up-to-date on the themes of earthquakes and tsunamis, with excellent pedagogic skills in the way they transmit this information. One of the issues mentioned in the different debates of the monitoring team, was that as citizens, living in areas that could be affected by earthquakes, they said to be now much better informed about the risks they run and how to protect themselves from these risks.





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#### Weaknesses (difficulties encountered in the implementation/realisation of the monitored project?)

From what we were able to evaluate, the least positive aspect, although easily recoverable, is the reach of the dissemination of the project among the populations of Cascais and Lisboa. The monitoring team realized that in fact this was a project that was not well known to the population, despite the campaigns promoted by both municipalities. Many of the planned awareness campaigns involving citizens, with visits to schools for example, could not be carried out due to the restrictions imposed by COVID 19. It is necessary to promote and disseminate the project to reach a much wider audience. And both municipalities are aware of that.

#### Risks - What problems may the project face in the future?

- The tsunamis reality is somewhat distant for the Portuguese population, and there is no memory of events of this nature in the country. For this reason, there is a risk of the population not showing particular interest in the initiative(s) or not recognising its relevance.
- Vandalisation of the different equipment installed
- Failure by the beneficiary municipalities to ensure effective maintenance of the various facilities

#### Your suggestions - Ideas to improve the projects and solutions to the problems you have found

- Better promotion of the project, through different methodologies to boost civic participation and engagement about the topic
- Strengthen dissemination to the younger population, through presentations in schools and universities, with particular attention to those areas at high risk of being affected by *tsunamis*
- Extend the initiative to other municipalities in the Lisbon Metropolitan Area that also have high risks of getting affected by a tsunami





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Your synthetic assessment

- Just started
- Ongoing with no major hiccups
- Ongoing with some problems
- Completed and useful
- Completed but ineffective

Investigation methods

Desk analysis

- Web research
- Visit to the project's location, documented by pictures or videos
- Interview with the Managing Authority of the Programme which financed the project
- Interview with the users and/or final beneficiaries of the intervention
- Interview with other types of people
- Interview with people responsible for the project's implementation
- Interview with political leaders

Who did you interview? What is the role of these people in the project?  
E.g. Mayor, government employee, informed citizen, journalist

We have interviewed responsible staff from AML, the promoter of the project, technical staff from both Lisbon and Cascais Municipality, and citizens living in Lisbon.





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Transcription of the two main questions to the interviewees - please specify which interviewees

The following set of questions, amongst others, were made during the sessions debate where the monitoring group had the opportunity to interview the technical staff from the promoter of the project (AML) in January 2022, and technical staff from the Municipality of Cascais (February 2022) and the Municipality of Lisbon (June 2022).

**Set 1 questions**

- *What were the reasons that led to the municipalities of Cascais and Lisbon being the first to join the project?*
- *How has the AML articulated its roles and responsibilities in the project with the beneficiary municipalities?*

**Set 2 questions**

- *What is the implementation status of the project? Have all activities been completed within the planned period?*
- *What concrete results have been developed during the project implementation period?*

**Set 3 questions**

- *How have the local populations been involved in this project?*
- *How do you evaluate the involvement of local populations in this project?*

Transcription of the main two answers to the questions above

**Set 1 questions answers**

*The idea for the tsunami warning and alert system in the Tagus estuary project arose in the context of the preparation work for the Pacto para o Desenvolvimento e Coesão da Área Metropolitana de Lisboa (Pact for the*





Development and Cohesion of the Lisbon Metropolitan Area), carried out during 2016.

The proposal was initially addressed at a municipal level having as beneficiary the Lisbon Municipality. In a meeting held with the POSEUR Managing Authority on 13 July 2015, for the purpose of negotiating the projects to be contracted in the PDCT-AML and given the small financial envelope available for projects in the context of PDCT/POSEUR, the need was indicated for the actions registered to be integrated into a supra-municipal scope, in order to generate synergies and economies of scale. This is how the AML became involved in the process. In this context, in the project and application, an attempt was made to extend it to other municipalities, assuming from the outset and given the reduced eligible investment available, that it would only have effective conditions for implementation as a pilot project.

Thus, in designing the project it was taken into account the need to promote it in municipalities that already presented a degree of maturity and consolidation of work in this area or that had warning systems implemented or being implemented that could be integrated, strengthen and then expanded in a broader system as a truly metropolitan system.

In this context, a basic characterisation of the municipal territories susceptible to this phenomenon was developed, naturally noting that, like Lisbon and Cascais, the territories of Oeiras and Almada are exposed to tsunami flooding, and given the studies developed in this domain, the conviction was consolidated that the municipalities upstream of the estuary (Barreiro, Seixal, Alcochete, Loures, Vila Franca de Xira) are areas also very susceptible to this type of phenomenon, so the question of an effectively metropolitan scale (in the Tagus estuary), would only be coherent if we also considered these municipalities.

Considering this, we have concluded that in order to have a broader action of the project to all the identified municipalities, it would need considerable higher funding, much higher than the available and contracted. However, and despite



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*this limitation, there was a conviction that the implementation of this pilot project, even though territorially limited, would translate into an added value for the AML.*

*In this sense, it was valued, in addition to the degree of maturity of the systems, the potential for replication in the remaining estuarine and coastal territory of AML. Namely, in the fields of technical characteristics of the equipment to be installed; of the procedures to be adopted in terms of emergency signage, as well as the exchange and management of information between municipal civil protection services, in a perspective of standardisation of messages and warnings. And that the lessons to be learned from this operation could become a benchmark for risk education in the AML, and that the lessons learned could be disseminated, including to other regions, drawing benefits that go beyond the territorial limits of the municipalities covered by this operation.*

**Set 2 questions answers**

*The execution period (2018-2021) is completed, which means that the financial execution is done. The final reports have been submitted, but the entities responsible for the project evaluation hasn't done the evaluation yet.*

*The main components and activities of the project can be aggrouped in two main areas 1) goods acquisitioning, including the purchase of the technical equipment's: the sound warning system (postos sonoros, informative panels, videos and spots); the emergency sinalética (sinalética de ponto de encontro e sinalética de evacuação; 2) publicity and dissemination, covering awareness-raising and information activities (tinas de simulação de tsunami; and dissemination activities).*

**Set 3 questions answers**

*Local populations have been informed about the project trough the different dissemination materials promoted such as video spots and flyers. And these materials are available in the municipalities online platforms. Civil protection exercises were also carried out with the aim of testing and training the response to multiple emergency situations that may occur (earthquake, tsunami).*





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Links, videos, attachments

Firmino, T. (2013). Os portugueses têm noção do perigo que correm com os tsunamis? Nem por isso. Público.

<https://www.publico.pt/2013/12/09/ciencia/noticia/os-portugueses-tem-nocao-do-perigo-que-correm-com-os-tsunamis-nem-por-isso-1615336>

Mendes, J. & Freiria, S. (2012). O Risco de Tsunami em Portugal Percepções e práticas. Universidade de Coimbra: Centro de estudos sociais Observatório do Risco.

PO SEUR (s.d). Presentation of the Operational Programme. PO SEUR - Portugal 2020. <https://poseur.portugal2020.pt/en/po-seur/about-the-programme/>

Câmara Municipal de Cascais, Teste de Aviso de Alerta de Tsunami, 2021 <https://www.cascais.pt/evento/teste-de-sistema-de-aviso-e-alerta-de-tsunami>

<https://www.cascais.pt/noticia/simulacro-tsunami-se-ouvir-o-alarme-saiba-como-agir-0>

Câmara Municipal de Cascais, Cascais recebe projeto-piloto da Área Metropolitana de Lisboa <https://www.cascais.pt/noticia/cascais-recebe-projeto-piloto-da-area-metropolitana-de-lisboa>

Câmara Municipal de Cascais, Painel Digital Alerta <https://www.cascais.pt/sub-area/painel-digital-alerta>  
<https://www.youtube.com/watch?v=LZjfvpl81VE>

Câmara Municipal de Cascais, Dia de Atenção Mundial para Tsunamis <https://www.facebook.com/CMCascais/videos/dia-de-aten%C3%A7%C3%A3o-mundial-para-tsunamis/421322468584509/>





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*Câmara Municipal de Cascais, Teste do Sistema de Aviso e Alerta de tsunami do Serviço Municipal de Proteção Civil, 2019*

<https://www.facebook.com/CMCascais/videos/ouviu-hoje-este-sinal-sonoro-saiba-que-se-trata-de-um-teste-do-sistema-de-aviso-/413802496219903/>

*Cascais instala sistema pioneiro de alerta de tsunami em Portugal, 2016*

<https://www.cascais.pt/video/cascais-instala-sistema-pioneiro-de-alerta-de-tsunami-em-portugal>

*E se um tsunami inundasse Cascais?* <https://www.cascais.pt/noticia/e-se-um-tsunami-inundasse-cascais>

*Exercício Europeu de Proteção Civil em Cascais | CASCADE'19*

<https://www.cascais.pt/video/exercicio-europeu-de-protecao-civil-em-cascais-cascade19>

*Simulacro Tsunami | Se ouvir o alarme saiba como agir*

[https://www.cascais.pt/noticia/simulacro-tsunami-se-ouvir-o-alarme-saiba-como-agir?fbclid=IwARlqveDiyOJZRqjhhSxIwYW8\\_6RctCMct5WxLym9Sonex7vXEIKES2W4-g](https://www.cascais.pt/noticia/simulacro-tsunami-se-ouvir-o-alarme-saiba-como-agir?fbclid=IwARlqveDiyOJZRqjhhSxIwYW8_6RctCMct5WxLym9Sonex7vXEIKES2W4-g)

*Sistema de Aviso e Alerta de Tsunamis | Proteção Civil de Cascais, 2017*

<https://www.cascais.pt/video/sistema-de-aviso-e-alerta-de-tsunamis-protecao-civil-de-cascais>

[https://www.youtube.com/watch?v=OHPsioqk\\_Po](https://www.youtube.com/watch?v=OHPsioqk_Po)

<https://www.cascais.pt/noticia/cascais-debate-comunicacoes-aviso-e-alerta-de-riscos-naturais>

*Cascais e Lisboa vão ter sistema de alerta de tsunami que pode ser alargado a mais concelhos. PÚBLICO. (2018, May 24).*

<https://www.publico.pt/2018/05/24/local/noticia/cascais-e-lisboa-vaio-ter->



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[sistema-de-alerta-de-tsunami-que-pode-ser-alargado-a-mais-concelhos-1832030](#)

Leandro, V. (2021, April 9). Lisboa conclui nova fase de implementação de Sistema de Aviso e Alerta de Tsunamis. Lisboa Secreta.

<https://lisboasecreta.co/sistema-alerta-tsunamis-lisboa/>

Lisboa conclui nova fase de implementação de Sistema de Aviso e Alerta de Tsunamis <https://lisboasecreta.co/sistema-alerta-tsunamis-lisboa/>

Proteção civil municipal organiza conferência sobre risco de tsunami <https://www.lisboa.pt/atualidade/noticias/detalhe/protecao-civil-municipal-organiza-conferencia-sobre-risco-de-tsunami>

Tsunami warning system installed in Lisbon. (2021, April 6). The Portugal News.

<https://www.theportugalnews.com/news/2021-04-06/tsunami-warning-system-installed-in-lisbon/59169>





STEP 3

RESULTS AND IMPACT

NEW CONNECTIONS THAT YOU GENERATED

How did you disseminate or are you disseminating the results of your civic monitoring?

- Twitter
- Facebook
- Instagram
- Territorial events organised by the teams
- Open Data Day / Week
- Team blog / website
- Flyers or other off-line methods (non-Internet)
- Requests for private hearings or meetings
- Media interviews

Other:

With which actors/partners have you established links to discuss the results of your monitoring?

Name	Function	Organisation	Type of connection
M. Costa	Technician	For Citizens	Participation by private hearing/meeting
J. Guerra	Technician	For Citizens	
N. Duarte	Technician	For Citizens	
C. Gomes	Technician	For Citizens	
M. Devitini	Technician	For Citizens	



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Has the media talk about your monitoring process?

Yes

No

If yes, the monitoring results have been shot by this media:

Local TV

National TV

Local newspapers

National newspapers

Blog or other online news outlet

Other

Did you have contacts with public administrations (mayor or executive personnel) to show or discuss with them your monitoring results?

Yes

No

Have the Public Administrations responded to your requests or to the problems you have highlighted?

No response

Some have responded, others not

They gave us formal or generic responses

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- At least one of those contacted gave us concrete promises
- They put our recommendations into practice and the project is now in progress or more effective
- We reported a problem that has now been resolved

tt

Describe for us your case and what concrete facts or episodes make you consider that your civic monitoring has had (or has not had) an impact among the subjects who manage or implement the project you have monitored?

We believe that the monitoring process has once again drawn attention not only to the project, reinforcing the need to continuously promote it among the populations it serves; but it has also drawn citizens' attention to a natural disaster that is not close to citizens' memory, but it is a situation that can happen and for which they should be prepared. On the other hand, during the interviews we conducted with the technical managers of the projects, in the different organisations, we felt that they felt valued for the attention and importance that the monitoring group gave to this project. To conclude, we would like to highlight the In conclusion, we would like to underline the excellent technical capacity and preparation of the professionals who are involved in the project as they are the guarantee that the project can continuously be promoted in disseminated in schools and in local communities.

