

EUROPEAN PARLIAMENT
Preliminary proposal
Pilot Project/Preparatory Action

Assessment phase

Pilot Project

New Proposal

Title

The use of Galileo and EGNOS to lower cardiac arrest-related deaths.

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Preferred DG

DG Grow

SECTION III: Commission

HEADING:	1A. Competitiveness for growth and jobs <small>Please select the corresponding MFF heading. Contact your group advisor or committee administrator for guidance.</small>				
BUDGET LINE:	<table border="1" style="display: inline-table; margin-right: 10px;"> <tr> <td style="width: 30px; text-align: center;">02</td> <td style="width: 30px; text-align: center;">05</td> <td style="width: 30px; text-align: center;">77</td> <td style="width: 30px; text-align: center;">XX</td> </tr> </table> <small>Designates classification used to arrange the data in the budget (for instance 09-04-77-12, with 77 referring to the correct chapter for PPPAs). Contact your group advisor or committee administrator for guidance.</small>	02	05	77	XX
02	05	77	XX		

	Amounts proposed	
	Commitments	Payments
Appropriations (EUR)	1.000.000,00	700.000,00

Suggestion: for NEW PPPAs, payments could be set at half of the proposed commitments; for ONGOING PPPAs, payments could be set at half of the proposed commitments plus outstanding payments of previous year(s).

Remarks

Sudden cardiac arrests account for 20% of deaths in the European Union. This figure could be significantly lower if early chest compression and early defibrillation are performed on all the victims. Indeed, research shows that a first defibrillation less than 3 minutes after the cardiac arrest results in a survival rate of 74% . Yet, only less than 5% of cardiac arrest victims are treated with early chest compression and defibrillation.

Nowadays, more and more information campaigns are carried out to promote the learning of how to perform cardio-pulmonary resuscitation (CPR) and the acquisition of Automated External Defibrillators (AEDs) by either individuals, private organisations or public authorities. However, the location of these AEDs and of the people who know how to perform

CPR is in many cases unknown to other people, including the emergency services. This results in a situation where victims of heart attacks cannot be resuscitated on time. Hence, it is essential to develop and promote applications that aim at mapping the publicly available AEDs and the people able to perform CPR.

At the same time, the added-value of European global navigation satellite systems EGNOS and Galileo on location-based services has already been demonstrated. These applications should also be used to save lives by 1. locating AEDs and 2. Locating people able to perform CPR.

1. USING EUROPEAN SPACE APPLICATIONS TO GET INFORMATION ABOUT THE LOCATION OF THE DEFIBRILATORS

A registry of all the available AEDs should be made available to the emergency call-takers, who could advise the person calling the emergency services about where the nearest defibrillator is located. Where possible, the registry should also be made available directly to the citizens.

It should however be taken into consideration that:

- Some defibrillators are not available 24/7, since they might be located in places that are closed at

 - some specific times (offices, shops, schools, etc.).

- In some cases, such as in big buildings, the address of the defibrillator might not give sufficient

 - information to get there quickly. Location information should therefore also include important

 - information such as the floor level.

- Data on the good functioning of the defibrillator is another very important piece of information. For

 - instance, modern defibrillators are now able to communicate the level of battery of the device.

Information provided in this registry should be made available using 2 methods:

1. Adding Galileo chipsets in the AEDs, so that the exact position of the device can be accurately tracked and

2. Adding manually the information of the AEDs that are not equipped with chipsets.

2. USING EUROPEAN SPACE APPLICATIONS TO MAP THE PEOPLE KNOWING HOW TO PERFORM CPR

This application would make use of GNSS-derived location information of volunteers that are able to perform CPR. In case somebody calls the emergency services to report a heart attack, the call-taker would see if somebody trained in CPR is located near the victim and alert him/her that help is required. Similar initiatives have already been developed in the United Kingdom and France, but such initiatives did not exploit fully the potential of European GNSS. Finally, it should be highlighted that the development of this application should be carried out in compliance with privacy legislations.

Hence, this project intends to demonstrate the added value of Galileo in saving lives. Due to its performances in terms of accuracy and availability of signal, the European global navigation satellite programme would contribute to reducing the intervention time for victims of heart attacks. Regarding this matter, it should be recalled that each minute lost before chest compression or defibrillation lowers the survival rate of the victim by 10%.

To carry out this project, the following should be developed:

- Develop a registry of the publicly available AEDs. The registry should include the following information:
 - Exact location of the AED, including information on how to reach the device (for instance floor level,...) using information provided by European GNSS Galileo.
 - Any restriction to the availability of the AED: closing times, restricted access...
 - If provided by the defibrillator, information on the good functioning of the device, such as battery level.
- Develop an application that would keep track of the people who know how to perform CPR and alert them in case a victim of a heart attack needs urgent help.
- Make these solutions available to emergency services (mainly the authorities handling emergency communications)
- Conduct a study on the added value of European GNSS in mapping AEDs
- Provide a comprehensive analysis, as well as recommendation points on how to foster the use of Galileo in similar sectors (eHealth)

Justification

It has been demonstrated that survival rates of victims of sudden cardiac arrest can rise significantly if cardio-pulmonary resuscitation and an early defibrillation are performed. While many AEDs are now available and many people are trained on how to perform CPR, information about where these devices are located and instant information about the people who know how to perform CPR are lacking. Hence, this pilot project would aim at demonstrating the added value of Galileo in lowering cardiac arrest-related deaths by mapping the publicly available AEDs and people able to perform CPR.

Committee to send: ITRE