National M.E.M. Conference
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EU Horizon 2020

ROCSAFE

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An Garda Síochána

Funded under EU Horizon 2020 under Contract (GA) number 700264

20/12/2016

EU Project 'ROCSAFE'
EU Horizon 2020 worth 80 billion Euro 2014 - 2020
When we are considering EU projects ... What comes to mind

ROCSAFE IS DIFFERENT: IT’S
PRACTICAL – USEFUL – CUTTING EDGE
<table>
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<tr>
<th>REMOTELY OPERATED CBRNE SCENE ASSESSMENT</th>
<th>FORENSIC EXAMINATION</th>
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<td>COMBINATION</td>
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<td><strong>Robotic Aerial Vehicles (Drone)</strong></td>
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Irish Consortium was the successful bid from 30 applications to run this project.

Irish Consortium scored an incredible score of 14.5 out of 15 for this project.
Led by Dr Michael Madden from the College of Engineering & Informatics at NUI Galway, the ROCSAFE project will focus on developing ICT and Security software to gather forensic intelligence in the event of a terrorist attack.
IRISH PARTNERS

• National University of Ireland Galway
• Defence Forces Ireland
• Tyndall Institute – University College Cork
• REAMDA
• HSE –
• Inter-Agency Emergency Management Office

There are 13 partners in total involved in the ROCSAFE project across Ireland, Italy, Portugal, Spain and Germany, along with a wider set of advisory board members.

INTERNATIONAL PARTNERS

• Consorzio C.R.E.O.
• CNR – INM
• Scorpio Networks Ltd
• Aeorum
• INOV Inesc Inovacao
• Valentia Police
• IBATECH
• Microfluidic Chipshop
• Saab Group (TBC)
Gaps in Current Practice

CBRNe accidents or attacks are low probability but of high consequence

• Lack of accurate & instantaneous detection and identification technologies.
• Lack of reliable / fast stand-off/remote detection methods for most CBE threat substances.
• Lack of systems that can detect multiple threats and degree of hazard.
• Safe sampling without putting First Responder at risk.
• No standardised approach to sampling.
• DECISION SUPPORT TOOLS
RGVs: An Early Trial at Didcot Power Station

23/02/16
Four Killed
SYNERGY

Think it!  Design it!  Build it!

PRAs  VES  Academia  Private  Army / Navy
BENEFITS

1. Protect Civilian Population
2. Protect EOD Team
3. Gather evidence for prosecution
4. Other applications !!!!
1. Expertise is present.
2. Finance is available from EU.
3. PRA / VES / STATE: Synergy exists
The overall goal of ROCSAFE is to fundamentally change how CBRNe events are assessed and ensure the safety of Crime Scene Investigators by reducing the need for them to enter a dangerous scene to gather evidence.

**RAVs with automatic navigation and routes optimised for finding zones of interest and scene overview**

**Video, images, relayed to Central Decision Management. Command Centre with map-based GUI showing threat colour maps, etc. Video & maps augmented with analysed sensor results.**

**All data streamed to Central Decision Management**

**Forensic results, when available, transmitted to Central Decision Management**

**ROCSAFE: Remote Forensics**

**RGVs deployed directly to zones of interest. Equipped with tools for forensic evidence collection**

**Forensic samples delivered to mobile lab [which is outside the scope of ROCSAFE]**