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| **THEME** | H2020-XXX-2016 //H2020-DRS-2014 | **PILLAR:** | IL/ES/SC // e.g. Societal Challenges |
| **TOPIC** | // Identify Pilar, Topic, Call information from the participant portal. Provide a link. // E.g. DRS19: Communication technologies and interoperability topic 2: Next generation emergency services  **TOPIC ID: Topic title** | | |
| **ACRONYM / TITLE:** | // Find an acronym and a working title that makes sense. Don’t worry about finding the best one, you can change them later on.  // MULTICALL: Multimedia Unified and sociaL-media-enriched plaTform for transmIssion of emergenCy multimodal caLLs  **ACRONYM: Working Title** | | |
| **SPECIFIC CHALLENGE :**  *(Derived from  Work Programme)* | // **DELETE THE PARAGRAPH BELOW AND REPLACE IT WITH THE TEXT FROM THE SPECIFIC CALL.** Copy these 3 parts from the participant portal as they are. Highlight all keywords and important information like the available budget.  *The manner in which* ***emergency calls*** *are being made today is changing and the change of pace has legal ramifications for our citizens. Society is using* ***internet-based tools*** *for every day activities but, for instance, making an emergency call using Voice over IP is not possible.* ***Smartphone*** *penetration is growing rapidly and whilst society benefits from this digital world,* ***the future of how we make emergency calls is not so clear****.*  *In this context, there is* ***a need*** *to* ***identify*** *the* ***main requirements of emergency services*** *(the demand side) on the basis of existing research information and to identify* ***research gaps****. There is also a need to* ***improve the security of citizens****, including those with* ***disabilities or special needs****, by creating the environment and infrastructure to allow technology and solution providers (the supply side), in particular SMEs, to test their Internet Protocol-based 112 emergency communication end-to-end against such requirements with each other and with the emergency services.>>>* | | |
| **SCOPE:**  *(Derived from  Work Programme)* | // **DELETE THE PARAGRAPH BELOW AND REPLACE IT WITH THE TEXT FROM THE SPECIFIC CALL.** Usually this is explicitly stated so you just have to understand it and analyse it.  *The proposal should contribute to the development of a* ***testing regime for Next Generation 112 products*** *(simultaneous use of* ***voice****,* ***data****,* ***video*** *and* ***text communications*** *using 112 over the internet) in a* ***controlled-environment****. It should also build a* ***validation-focused programme/framework****using existing standards and protocols, with consideration of e.g. call location and routing, video calling to assist people with disabilities, security, integration of social media channels Next Generation eCall, messaging and early warning systems etc.*  *The proposal should gather European technology providers, emergency services organisations, research and development laboratories, telecommunication network providers, Voice Over IP providers, and software providers to build on the expertise in a collaborative fashion.*  *The Commission considers that proposals requesting a* ***contribution from the EU of between €2m and €5m*** *would allow this specific challenge to be addressed appropriately (similar to the Seventh Framework Programme Capability Projects described in the general introduction). Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.* | | |
| **EXPECTED IMPACT :**  *(Derived from  Work Programme)* | // **DELETE THE PARAGRAPH BELOW AND REPLACE IT WITH THE TEXT FROM THE SPECIFIC CALL.** Make sure you understand every single term and what is expected by the EC.  *A greater efficiency from emergency service organisations will have obvious* ***societal benefits for all citizens****, with a direct* ***positive impact for those citizens with disabilities****.*  *This proposal shall contribute to the implementation of a* ***common standard of emergency call services throughout Europe****, ensuring, that the future media for daily communication can also be used for emergency calling. It shall facilitate the interoperability of the many involved technologies and services and their vendors and providers.*  *The action is expected to* ***proactively target the needs and requirements of public bodies*** *and law enforcement. The outcome of the proposal is expected to lead to development up to* ***Technology Readiness Levels (TRL) 7****; please see part G of the General Annexes.* | | |
| **PROBLEM:** | // Explain the problem that you seek to address. It should be specific and comply with the challenge and scope of the call. You cannot work on a problem that is not a priority of EC.  **// TEXT BELOW IS FROM A SPECIFIC PROPOSAL NOTE. PLEASE DELETE AND WRITE YOUR OWN:**  The European emergency number 112 is used to do free of charge emergency calls all over the EU. Despite the fact that communication to date is multimodal (including audiovisual channels, geographical features, etc.) the emergency calls are still voice oriented. In addition, according to the European Commission, this **number is not accessible to the majority of disabled people**. Another important issue is that **multilingual support** is not provided, which is an essential feature to support immigrants in Europe that do not speak the local language. Although several solutions have been tested (such as legacy text phones or web-based synchronous communication tools), many issues and problems (such as disabled people and multilingual support) still remain. These issues concern all the main participants of an emergency call: the disabled users, the Public Safety Answering Points (**PSAPs**) and the first responders. Recent research approaches and projects have focused on the delivery of multimodal information with priority over the network, however they did not offer solutions for automatic or semi-automatic processing of the multimodal and multilingual data transmitted with a view to facilitate the call routing and support people with disabilities, as well as aggregating this content in order to validate it and generate early warnings. | | |
| **SOLUTION / APPROACH** | // Try to explain as clearly as possible how you propose to solve the problem. What is your approach.  **// DELETE THE PARAGRAPH BELOW AND REPLACE IT WITH THE TEXT FROM THE SPECIFIC CALL:**  Instead of focusing on a specific part of the problem (e.g. routing), this project proposes a **holistic approach**, supporting all the phases in an emergency call sequence. The overall objective of MULTICALL is to provide an **integrated solution for new generation emergency calls** **supporting transmission, routing and aggregated analysis of multimodal and multilingual data** with a view to facilitating access by people engaged in situations with limited calling conditions (e.g. in a car), disabled people and immigrants, as well as providing early warnings. | | |
| **OBJECTIVES** | // Write your scientific and technological objectives. What will be the result of the project?  **// DELETE THE PARAGRAPH BELOW AND REPLACE IT WITH THE TEXT FROM THE SPECIFIC CALL:**  MULTICALL will go beyond the state of the art by confronting the following scientific and technological objectives:   1. Perform a **research study on the requirements for emergency services** given the current digital landscape and the special needs of the people 2. Perform **analysis of multimedia content (**mainly image and video) in order to extract high level information that will facilitate the understanding of the emergency situation and **support the disabled users** 3. Research and develop speech recognition and machine translation solutions to support (**SW modules to be used by existing solutions**) 4. Aggregate multimodal information from the emergency calls and social media to investigate the validity of the call and issue early warnings. 5. **Development of a prioritization and transmission mechanism over IP to support emergency services based on LTE/4G.** | | |
| **VALIDATION/ EVALUTATION** | // How are you going to validate your results and solutions. Who is going to test them and how?  **// DELETE THE PARAGRAPH BELOW AND REPLACE IT WITH THE TEXT FROM THE SPECIFIC CALL:**  The developed solutions and technologies will be evaluated with three realistic use cases: 1) People reporting a major important event (e.g. fire, accident) (application: multilingual call data and social media aggregation for validation and early warning); 2) disabled people support (application: video analysis, multilingual text communication); 3) people in a car (eCall) (application: automatic calling of emergency service and data transmission, video& image analysis, multilingual dialogue) | | |
| **DURATION** | 36 Months | | |
| **CONTACT** | // How is coordinating the proposal preparation. It doesn’t have to be the coordinator but the person responsible for coordinating this phase, collecting information and submitting the proposal.  Odysseas Spyroglou, Key Expert in H2020, Turkey in H2020, [o.spyroglou@idi.ie](mailto:o.spyroglou@idi.ie) | | |

//Prepare a partners table with the ones that are already in the consortium. If you still expect final confirmations by important partners, add them to the list. You should present a competitive consortium to be able to attract strong partners.

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| **PARTNERS TABLE** | | | | | |
| **No** | **PARTICIPANT** | **SHORT** | **COYNTRY** | **TYPE** | **ROLE** |
| 1 | Centre for Research and Technology Hellas (CO) | CERTH | GR | Research centre | Image & Video analysis, social media monitoring |
| 2 | Intrasoft |  | LU | Industry | System development |
| 3 | COSMOTE |  | GR | Industry | Telecom provider |
| 4 | HELLENIC RESCUE TEAM\* |  | GR | User organisation | END USER (1st responder) |
| 5 | PSAP organization (112 Handler) |  |  | User | END USER (call centres) |
| 6 | Disabled people organization |  |  | User | END USER |
| 7 |  |  |  | SME | Commercialisation |

\*Pending confirmation