

ANNOUNCEMENT LETTER

VESEEDIA, a European cooperative research project, officially started on 1st January 2017 with a set duration of 36 months. It receives funding from the European Union's Horizon 2020 Programme (H2020/2014-2020) under grant agreement no 731453.

VESEEDIA: VERIFICATION ENGINEERING OF SAFETY AND SECURITY CRITICAL INDUSTRIAL APPLICATIONS

In the fast evolving world we live in, the Internet has brought many benefits to individuals, organisations and industries. With the capabilities offered to connect billions of devices such as IPv6, the Internet brings new safety and security related threats to software developers. VESSEDIA will devise an approach that allows for safe and secure connected applications.

At the forefront of connected applications is the IoT (Internet of Things), whose growth is exponential and whose security risks are real e.g. in hacked smart phones. VESSEDIA will take this domain as a target for demonstrating the benefits of using enhanced verification tools on connected applications.

Specialised software security analysis tools need to be developed in order to scale to large industrial applications. Therefore, the project targets making formal methods more accessible for application domains that improve the security and reliability of their software applications. The project is based on the Frama-C software analysis platform that will be leveraged to a higher degree of efficiency by extending it to a software assessment toolbox with high-level capabilities. The platform will be capable to cover most application domains and propose standardised components. It will be demonstrated that Frama-C can serve as a tool for the assessment of software applications.

The goals of the VESSEDIA project are to

- develop a methodology that allows to adopt and use source code analysis tools efficiently and produce similar benefits than already achieved for highly-critical applications,
- enhance the Frama-C toolbox to enable efficient and fast implementation,
- demonstrate the new toolbox capabilities on typical IoT applications including an IoT Operating System (Contiki),
- develop a standardisation plan for generalising the use of the toolbox,
- contribute to the Common Criteria certification process, and
- define a label "Verified in Europe" for validating software products with European technologies.

The VESSEDIA consortium brings together a team of recognized partners in the fields of industry and research in combination with innovation-oriented SMEs and a certification expert. This makes it suitable to achieve the project's objectives. These 10 VESSEDIA partners are spread over 7 European countries and comprise basic research and service design with applied research and end-user oriented service. The complementarities of the partners' expertise aim at creating value for individual enterprises and institutions and their value chains. To be more precise, VESSEDIA will help to enhance modern software analysis tools to allow developers to benefit when designing connected applications.

The VESSEDIA partners are:

- Technikon Forschungs- und Planungsgesellschaft mbH, Villach, Austria
- Commissariat à l'énergie atomique et aux énergies alternatives, Paris, France
- Dassault Aviation, Paris, France
- Search-Lab Biztonsági Értékelő Elemző és Kutató Laboratórium Korlátolt felelősségű társaság, Budapest, Hungary
- Fraunhofer Gesellschaft zur Förderung der angewandten Forschung E.V., Munich, Germany
- Institut National de Recherche en Informatique et Automatique, Le Chesnay Cedex, France
- Turun Ammattikorkeakoulu Oy, Turku, Finland
- Katholieke Universiteit Leuven, Leuven, Belgium
- Fundación Deusto, Bilbao, Spain
- Amossys SAS, Rennes, France

For more information visit www.vessedia.eu (under construction)

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