AgiSpacES: Agile and Iterative Methods for Space Industry

Technology Research Center at the University of Turku investigates how the strictly standardized and regulated area of space technology can benefit from the flexibility and efficiency of agile and iterative product development methods.

The recently started AgiSpacES project develops agile and iterative product development methods to be utilized in the development of embedded systems in space industry. The project is carried out in close collaboration with Finnish space technology companies and it is mainly funded by Tekes – the Finnish Funding Agency for Innovation.

AgiSpacES (Agile Development Methods for Embedded Systems in Space Industry) extends the Technology Research Center's know-how on the development of embedded systems especially to the systems in space industry. In embedded systems software, hardware and mechanics are strictly related to each other.

In space technology, strict standards and regulations characterize the development work. AgiSpacES collects development practices which may be beneficial in the development of space technology. During the project, these practices are adjusted to fit into predominant circumstances in the domain of space technology.

Product Development in Short Cycles

Agile and iterative product development methods have gained popularity among software developers during the 21st century. Recently the interest has stirred also in the embedded systems industry.

Agile product development proceeds in short cycles. At the end of each cycle, the product is one step closer to its final form. Uncertainty in the beginning of a project is accepted and the plans are written as the details emerge. Agile development makes possible to improve the prioritization of product features and thus enables possibility to left unnecessary features out at the end of the project.

Several standards and regulations steer the product development processes in the space industry. AgiSpacES develops practices to exploit the benefits of agile and iterative methods in the space industry.

The companies taking part in the project are Patria, AL Safety Design Ltd, Aboa Space Research Oy, Harp Technologies Ltd and Kovilta Oy with support from the other partners, Turku Science Park Ltd and Turku Agile Group ry.

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