

## Technology Roadmapping in Defense Industry

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**Abstract :** The rapid progress of technology in today's competitive conditions has also accelerated companies' technology development activities. As a result, companies are paying more attention to R&D studies and are beginning to allocate a larger share to R&D projects. A more systematic, comprehensive, target-oriented implementation of R&D studies is crucial for the company to achieve successful results. As a consequence, Technology Roadmap (TRM) is gaining importance as a management tool. It has critical prospects for achieving medium and long term success as it contains decisions about past business, future plans, technological infrastructure. When studies on TRM are examined, projects to be placed on the roadmap are selected by many different methods. Generally preferred methods are based on multi-criteria decision making methods. Management of selected projects becomes an important point after the selection phase of the projects. At this stage, TRM are used. TRM can be created in many different ways so that each institution can prepare its own Technology Roadmap according to their strategic plan. Depending on the intended use, there can be TRM with different layers at different sizes. In the evaluation phase of the R&D projects and in the creation of the TRM, HAVELSAN, Turkey's largest defense company in the software field, carries out this process with great care and diligence. At the beginning, suggested R&D projects are evaluated by the Technology Management Board (TMB) of HAVELSAN in accordance with the company's resources, objectives, and targets. These projects are presented to the TMB periodically for evaluation within the framework of certain criteria by board members. After the necessary steps have been passed, the approved projects are added to the time-based TRM, which is composed of four layers as market, product, project and technology. The use of a four-layered roadmap provides a clearer understanding and visualization of company strategy and objectives. This study demonstrates the benefits of using TRM, four-layered Technology Roadmapping and the possibilities for the institutions in the defense industry.

**Keywords :** technology roadmap, research and development project, project selection, research development in defense industry

**Conference Title :** ICITM 2018 : International Conference on Innovation and Technology Management

**Conference Location :** Venice, Italy

**Conference Dates :** April 12-13, 2018