

## **EX POST AND EX ANTE IMPACT ANALYSIS OF RESEARCH PROGRAMMES USING CMMI FRAMEWORK**

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**Abstract:** In this paper, we propose a new approach for evaluating research projects and programs. According our approach, the improvement might be achieved by adopting a results-based and a project portfolio approach, and assuring a research and technology development (RTD) indicators documentation through a standard and comprehensive indicator description, named indicator template. The results-based approach will assure a consistent indicators structure, according to the results chains and a strong connection between ex ante and ex post impact evaluation. The project portfolio approach will assure a tight integration of the research performance indicators, especially between policies goals and program results. And, finally defining a comprehensive indicator template it will be possible to understand better the indicators, develop a detailed analysis, based on the business intelligence techniques, such as OLAP (On-Line Analytical Processing), data mining and text mining. According our knowledge the usage of this kind of techniques on RTD metadata is an innovative process. What we expect to find out is the indicators similarities and differentiations, the indicators clusters, the association between indicators, the most important input factors of indicators definition. According the results-based and project portfolio approach the discovered patterns will be evaluated

**Keywords:** RDT indicator, RDT statistics, indicator template, data mining, text mining.

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