

APPLYING THE CoReS REQUIREMENTS DEVELOPMENT METHOD FOR BUILDING IT TOOLS FOR URBAN MANAGEMENT SYSTEMS: THE URBANAPI PROJECT

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Abstract

Gathering and managing requirements from stakeholders is an essential task for the successful development of IT tools for any application domain. However, specifying stakeholders' requirements for a collaborative research and development project in the urban management domain is especially challenging. The reason for this is that stakeholders are drawn from different professional, scientific and national backgrounds and contexts, and therefore have various and differing research, technological and application domain-specific objectives. These challenges make it difficult to identify commonalities in requirements that can result in the development of generic IT tools which can be applied in other cities. These various challenges make it highly desirable therefore to identify and apply a coherent methodological approach to the management of the requirements gathering process and stakeholder engagement more generally.

In this paper, we introduce a coherent methodology and a generic requirements engineering process, namely – 'CoReS – Collaborative Requirements Engineering and Stakeholder engagement'. This process is applied to the UrbanAPI-project - a collaborative research project, in which eleven partners from six European countries are collaborating to develop IT tools to support policy making, urban planning and participatory governance at different urban scales. The CoReS method results in the identification of commonalities in stakeholder requirements from four major cities located in different EU member states with the objective to develop generic IT tools and applications.

More specifically, this paper reports on the urban planning issues and needs for generic IT tools. In addition, it presents strengths and weaknesses of the CoReS method applied in the UrbanAPI project. Furthermore, it is argued that this experience can effectively support the specification of a roadmap in defining the requirements for the development of IT tools for decision support in the urban planning domain, that can be applied to a wide range of cities throughout Europe.

Keywords: Requirements Engineering, Urban Management, IT Tools Development, and Stakeholder Engagement

Citation: Khan Z, Ludlow D, Loibl W, (2013), Applying the CoReS Requirements Development Method for Building IT Tools for Urban Management Systems: The UrbanAPI Project, *Theoretical and Empirical Researches in Urban Management*, Vol. 8, Issue 4, pp. 25-59. November 2013.