



## Case Study

## Software product evolution for Intellectual Capital Management: The case of Meta4 PeopleNet

Ricardo Colomo-Palacios<sup>a</sup>, Eduardo Fernandes<sup>b</sup>, Pedro Soto-Acosta<sup>c,\*</sup>, Marc Sabbagh<sup>b</sup><sup>a</sup> Computer Science Department, Universidad Carlos III de Madrid, Av. Universidad, 30, 28911 Leganés, Madrid, Spain<sup>b</sup> Meta4 Spain, Centro Europa Empresarial, Edificio Roma, C/ Rozabella, 8, 28290 Las Rozas, Madrid, Spain<sup>c</sup> Department of Management & Finance, University of Murcia, Campus de, Espinardo, 30100 Espinardo, Murcia, Spain

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## ABSTRACT

Software must evolve in order to adapt to new demands and scenarios. In the case of packaged software that can be customized, this evolution implies the maintenance of both out-of-the-box and customized functionality alike. New user interface technologies provide a way to interact with applications that software vendors are forced to incorporate in order to meet new user and market requirements. Packaged software vendors are facing software evolution processes in order to attract more customers and conserve the existing ones. This case analysis describes the evolution of packaged software, Meta4 PeopleNet, towards the addition of Rich Internet Applications features to a Human and Intellectual Capital Management tool. The findings and lessons learned presented in this case study provide useful insights for packaged software vendors facing software product evolution.

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## 1. Introduction

Since software change is inevitable, all software systems must evolve to meet the ever-expanding needs of its users (Williams & Carver, 2010) and the changes in environments and organizations (Ciraci, van den Broek & Aksit, 2007). Software evolution is the subject of many studies both in academia and in industry and, indeed, a major part of current software development is devoted to software maintenance (Pessemier, Seinturier & Duchien, 2008). In software products (packaged software), this evolution is a key element to gain competitive advantage in an ultra competitive market. Software products are programs that are used by more than one organization (Unphon & Dittrich, 2010). They are long-living; often evolving over several decades. In this sense, a software product is the result over time of a set of activities, which appeal to various competences and knowledge (Alija & Kaba, 2008). Many of the organisations dedicated to the development of software packages face the problem of having to migrate or reengineer their products, adapting them to new technologies and functionalities because changes in business processes are almost always linked to changes in systems and technology (Lientz and Rea, 2001).

Software evolution is not a simple problem. As software products evolve, complexity shifts from lower to higher structural levels

(Sangwan, Vercellone-Smith & Laplante, 2008). The evolution of software packages seems to be even complex and full of problems. In this sense, problems affecting software development are magnified in an organization whose mission is to develop packaged software (Dubé, 1998). This is the focus of this case study. The main objective is directed to present an example of the evolution of a software package aimed to adapt a software solution to new and demanding market requirements.

## 2. Company background

Meta4 is one of the world's leading providers of solutions for the management and development of human and intellectual capital (HCM). Founded in 1991, Meta4 has more than 1300 clients in 100 countries and these figures mean that Meta4 has become one of the top three providers worldwide for Human Resources software as well as the second Spanish software vendor within the top 100 European software companies for 2009 on the Truffle 100 index. More than 18 million employees are managed using Meta4 software. The revenues of the company in 2009 reached 47.3 million Euros with a 13% growth compared to the year before. More than 60% of this revenue comes from international sources.

Meta4 has branches in eleven countries, although the headquarters of the company is located in Madrid, Spain. Its HCM solution has a strong presence in Spanish and Portuguese-speaking countries as well as in France. It has also expanded into other markets, including the UK, Scandinavia and the US According to Gartner (2009), approximately 75% of Meta4's customers implement the solution

\* Corresponding author. Tel.: +34 868887805; fax: +34 868887537.

E-mail addresses: [eduardofer@meta4.com](mailto:eduardofer@meta4.com) (E. Fernandes), [psoto@um.es](mailto:psoto@um.es) (P. Soto-Acosta), [marcs@meta4.com](mailto:marcs@meta4.com) (M. Sabbagh).