INTRODUCTION

The implementation of enterprise portals is still ranked top on the wish list of many CEOs, expecting that the portal becomes the core system for offering a flexible infrastructure that integrates and extends business applications “beyond the enterprise” (Hazra, 2002). By 2009, the market for application integration, middleware, and portals is expected to grow to $7.1 billion, with a 5-year compound annual growth rate of 2.7% (Correia, Biscotti, Dharmasthira, & Wurster, 2005).

The success of enterprise portals is not astonishing, since the portal concepts promise to provide secure, customizable, personalizable, integrated access to dynamic content from a variety of sources, in a variety of source formats, wherever it is needed (Amberg, Holzner, & Remus, 2003; Collins, 2001; Davydov, 2001; Hazra, 2002; Kastel, 2003; Smith, 2004; Sullivan, 2004), enabling core e-business strategies by running supportive portals like knowledge portals, employee portals, ERP portals, collaborative portals, process portals, and partner portals.

However, after the first wave of euphoria, the high expectations of companies became more and more realistic, taking into account that portal projects are complex, time- and cost-consuming, with a high risk of failure. In complex portal projects, costs and benefits to build up and operate an enterprise portal are weighed up in a systematic manner, including make-or-buy decisions with regard to packaged portal platforms vs. open source developments, individually developed vs. purchased portal components (so called portlets), and benefits vs. costs to run, maintain, and improve the portal (Hazra, 2002).

Altogether, the growing demand for portal solutions is leading to an increasing attention in regard to the management of critical success
factors (CSF). In contrast to many studies and surveys covering aspects about the portal market and technological features of packaged portal platforms, there is still little known about CSF and best practices when implementing enterprise portals. Considering these critical factors, portal implementation projects can be directed and managed more effectively.

The goal of this article is to present the most important factors that are critical for the success of the implementation of an enterprise portal. In order to better understand these factors, we first provide background knowledge on basic tasks, actors, and relationships in typical portal implementation projects. We then present a comprehensive list of CSF, together with a categorisation framework, classifying these factors into tactical vs. strategic, technical vs. organizational, static vs. dynamic, and stage- vs. nonstage-specific CSF.

BACKGROUND: THE PORTAL VALUE CHAIN

At present, the market seems to be in a strong consolidation phase, in which many small vendors are put out of the market or bought up by the big vendors of portal products, that is, IBM, SAP, Plumtree, or Oracle. We assume that, in the long-run, the market might split up into vendors that provide portal frameworks, vendors that are specialized in building portal components (portlet suppliers), and service providers who will integrate the components to a complete portal solution for the customer (portal integrator). The whole portal industry might shift continually towards a multilayered supply chain—comparable to the automotive or the mechanical engineering industry (see Figure 1).

During the configuration of portals, portlets of different portlet suppliers can be combined and integrated into the portal solution. Portlet package

![Figure 1. The portal value chain](image-url)