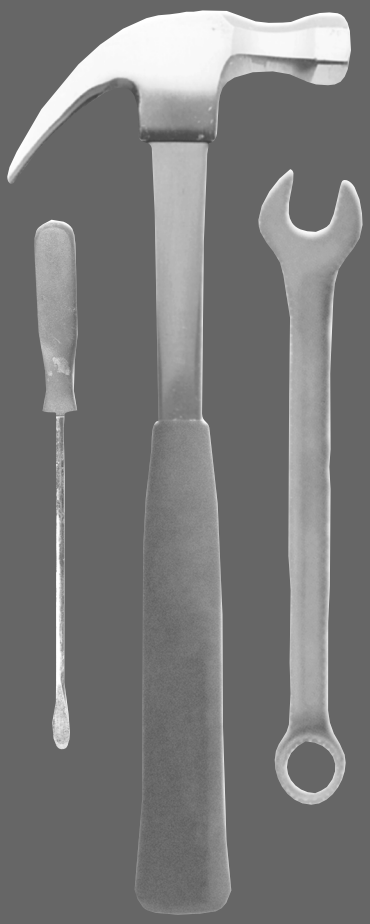
FOR PUBLIC RELEASE



Part II
The Road Ahead: Implementing Knowledge Management



Chapter 4
The 10-Step Knowledge Management Road Map

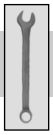
IN THIS CHAPTER

- ✔ Understand the 10-step KM road map and how it applies to *your* company.
- ✔ Understand the four phases constituting these 10 steps: infrastructural evaluation; KM system analysis, design and development; deployment; and evaluation.
- ✔ Understand where each step takes you.
- ✔ Articulate a clear link between KM and business strategy.
- ✔ Learn how to prioritize KM support for processes to maximize business impact.
- ✔ Understand the key steps involved in knowledge auditing, knowledge mapping, strategic grounding, deployment methodology, teaming, changing management, and return-on-investment (ROI) metrics formulation.
- ✔ Use real-options analysis to guide your KM investments.

THEY COPIED ALL THAT THEY COULD FOLLOW BUT THEY COULD NOT COPY MY MIND, AND I LEFT 'EM SWEATING AND STEALING AND A YEAR AND HALF BEHIND.
—RUDYARD KIPLING

Knowledge management is a complex activity that cannot deliver business impact without a concrete plan. This chapter introduces that plan: The 10-step KM road map that will guide you through strategizing, designing, developing, and implementing a KM initiative—with *your* company in mind. Recall, this is a road map, not a methodology with a deceptive look of a cookie-cutter formulation. Even if your competitors get to it, they cannot apply it because knowledge is protected by context as copy-protected software is protected by encryption.

This strengthening idiosyncrasy of knowledge also has a negative implication for you: You cannot easily copy a competitor's KM strategy. Examples from your industry's leaders can be useful for understanding KM, but they cannot show you the right way to do it. For these reasons, your KM system and KM strategy will have to be unique to your company. What follows in the next four sections of this book is an explication of the road map for developing an idiosyncratic knowledge strategy.



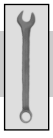
THE 10-STEP KNOWLEDGE MANAGEMENT ROAD MAP

Each of the next 10 chapters that follow will describe one each of the 10 steps in the KM road map. These steps and their sequence are described in Figure 4-1.

To grasp the bigger picture, look at the four phases that the 10 steps of the road map comprise:

1. Infrastructural evaluation
2. KM system analysis, design, and development
3. System deployment
4. ROI and performance evaluation

These four phases are described in Parts II, III, IV, and V of this book. Table 4-1 describes how each of these steps is logically arranged in these chapters.



PHASE 1: INFRASTRUCTURAL EVALUATION

The first phase of the 10-step technique involves two steps. In the first step, you analyze your existing infrastructure, then identify concrete steps that you can take to leverage and build on your KM platform. In the second step, you perform a strategic analysis to link KM objectives and business strategy.

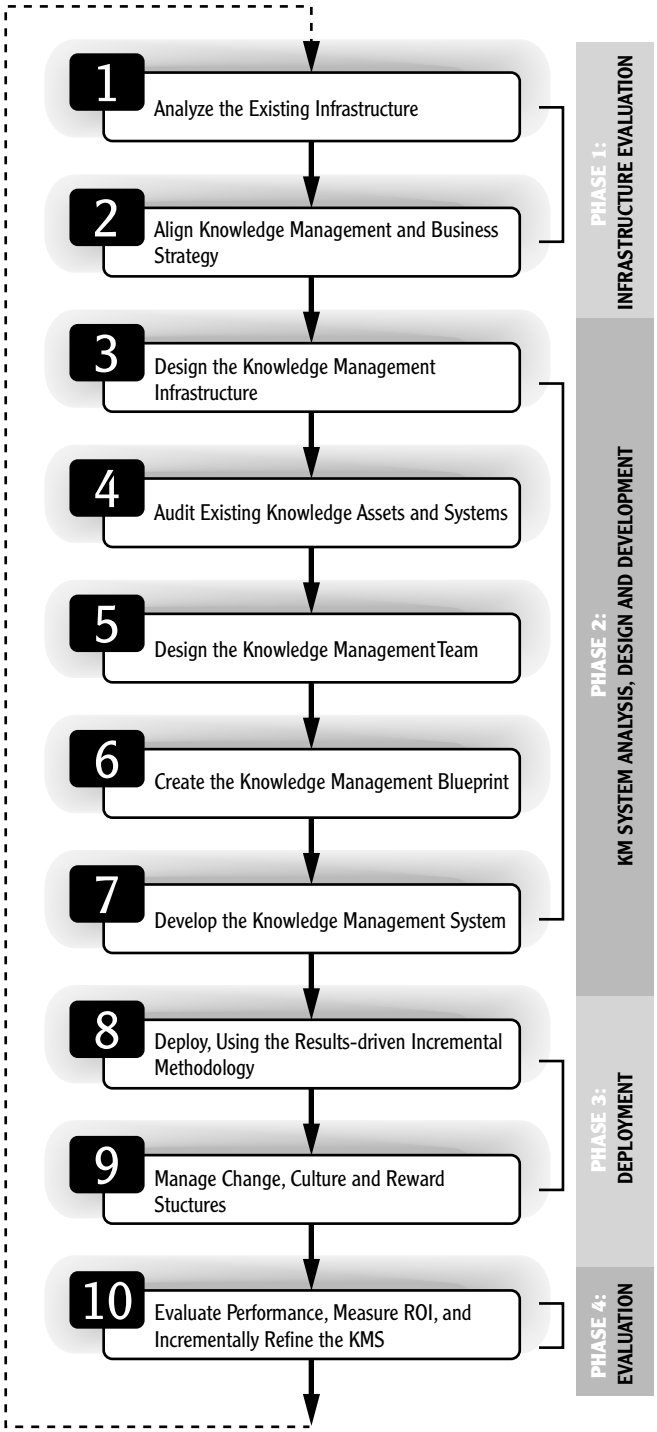


Figure 4-1 The 10-step KM road map.

Table 4-1 Organization of Chapters Describing The Four Phases of The 10-Step KM Roadmap

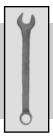
Part	Chapter	Step
PHASE 1: INFRASTRUCTURAL EVALUATION		
II	5	Step 1: Analyzing existing infrastructure
	6	Step 2: Aligning KM and business strategy
PHASE 2: KM SYSTEM ANALYSIS, DESIGN, AND DEVELOPMENT		
III	7	Step 3: Designing the KM architecture, and integrating existing infrastructure
	8	Step 4: Auditing and analyzing existing knowledge
	9	Step 5: Designing the KM team
	10	Step 6: Creating the KM blueprint
	11	Step 7: Developing the KM system
PHASE 3: DEPLOYMENT		
IV	12	Step 8: Deploying with results-driven incrementalism (RDI) methodology
	13	Step 9: Leadership issues
PHASE 4: METRICS FOR PERFORMANCE EVALUATION		
V	14	Step 10: Real-options analysis of returns and performance

Step 1: Analysis of Existing Infrastructure

In this first step, you gain an understanding of various components that constitute the KM strategy and technology framework. By analyzing and accounting for what is already in place in your company, you can identify critical gaps in the existing infrastructure. Consequently, you will be able to build on what already exists. Instead of *telling* you what components to build on, I will guide you through the process of making those decisions specifically in the context of your company. Although leveraging existing infrastructure is the logically, scientifically, rationally, theoretically, common-sensically, and financially right approach, it also stands a better chance of generating stronger management support for your KM project because of the perception that you are not completely abandoning the "old" existing investments.

Step 2: Aligning Knowledge Management and Business Strategy

Business strategy is usually at a high level. Developing systems is always at a low level: Specifications and features are needed, not abstractions or visions. The second step in the 10-step road map allows you to make the connection between these two: Raise KM platform design to the level of business strategy and pull strategy down to the level of systems design. As a part of the process of creating this alignment between KM and business strategy, Chapter 6 describes what you must do.



Phase 2: Knowledge Management System Analysis, Design, and Development

The second phase of KM implementation involves analysis, design, and development of the KM system. The five steps that constitute this phase are:

1. KM architecture design and component selection
2. Knowledge audit and analysis
3. KM team design
4. Creation of a KM blueprint tailored for your organization
5. The actual systems development process

Let us briefly examine each of these steps and understand the key tasks that need to be accomplished at each step.

Step 3: Knowledge Management Architecture and Design

As the third step toward deploying KM, you must select the infrastructural components that constitute the KM system architecture. KM systems use a seven-layer architecture, and the technology required to build each layer is readily available. Integrating these components to create the KM system model requires thinking in terms of an *infostructure,* rather than an infrastructure. Your first big choice is the collaborative platform. We will reason through the choice of the preferred collaborative platform to decide whether the Web or a proprietary platform is better suited for your company. You will also identify and understand components of the collaborative intelligence layer: artificial intelligence, data warehouses, genetic algorithms, neural networks, expert reasoning systems, rule bases, and case-based reasoning. You will also examine how newer developments, such as peer-to-peer platforms, hold promise for corporate KM.

Step 4: Knowledge Audit and Analysis

A KM project must begin with what your company already knows. In the fourth step, you audit and analyze knowledge, but first you must understand why a knowledge audit is needed. Then you assemble an audit team representing various organizational units, as described in Chapter 8. This team performs a preliminary assessment of knowledge assets within your company to identify those that are both critical and weak.

Step 5: Designing the Knowledge Management Team

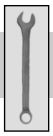
In the fifth step on the KM road map, you form the KM team that will design, build, implement, and deploy your company's KM system. To design an effective KM team, you must identify key stakeholders both within and outside your company; identify sources of expertise that are needed to design, build, and deploy the system successfully while balancing the technical and managerial requirements. We examine the issues of correctly sizing the KM team, managing diverse and often divergent stakeholder expectations, and using techniques for both identifying critical failure points in such teams.

Step 6: Creating the Knowledge Management System Blueprint

The KM team identified in Step 5 builds on a KM blueprint that provides a plan for building and incrementally improving a KM system. As you work toward designing a KM architecture, you must understand its seven layers specifically in the context of *your* company and determine how each of these can be optimized for performance and scalability, as well as high levels of interoperability. You will also see how to position and *scope* the KM system to a feasible level where benefits exceed costs. Finally, you will see ways to *future-proof* the KM system so that it does not "run out of gas" when the next wave of fancy technology hits the market. This step integrates work from all preceding steps so that it culminates in a strategically oriented KM system design.

Step 7: Developing the Knowledge Management System

Once you have created a blueprint for your KM system (Step 6), the next step is that of actually putting together a working system. We will tackle the issues of integrating a system across different layers to build a coherent and stable KM platform.



PHASE 3: DEPLOYMENT

The third phase in the 10-step road map involves the process of deploying the KM system that you built in the preceding stages. This phase involves two steps:

1. Deployment of the system with a *results-driven incremental* technique, more commonly known as the RDI methodology. This step also involves the selection and implementation of a pilot project to precede the introduction of a full-fledged KM system.
2. Cultural change, revised reward structures, and the choice of using (or not using) a CKO to make KM produce results. This is perhaps the most important complementary step that is critical to the acceptance of a KM system in any company.

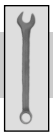
Let us take a brief look at these two steps.

Step 8: Pilot Testing and Deployment Using RDI Methodology

A large-scale project such as a typical KM system must take into account the *actual* needs of its users. Although a cross-functional KM team can help uncover many of these needs, a pilot deployment is the ultimate reality check. In the eighth step on the KM road map, you must decide how you can select *cumulative* releases with the highest payoffs first. You will evaluate the need for a pilot project; if it is needed, select the right, nontrivial, and representative pilot project. You will also appreciate scope issues and ways to identify and isolate failure points. Finally, you will evaluate how to use the RDI methodology to deploy the system, using cumulative results-driven business releases.

Step 9: Leadership and Reward Structures

The most erroneous assumption that many companies make is that the intrinsic value of an innovation such as a KM system will lead to its enthusiastic adoption and use. Knowledge sharing cannot be mandated: Your employees are not like troops, they are like volunteers. Encouraging use and gaining employee support requires new reward structures that motivate employees to use the system and contribute to its enthusiastic adoption. Above all, it requires enthusiastic leadership that sets an example to follow. Chapter 13 guides you through these leadership and incentive development issues.



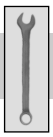
PHASE 4: METRICS FOR EVALUATION

The last phase involves one step that most companies have been struggling with: measuring business value of KM. When pushed for hard data, managers have often resorted to ill-suited and easily misused approaches, such as cost-benefit analysis, net present value (NPV) evaluation, vague ROI measures, or, at best, Tobin's *q*. Chapter 14 describes the traps that companies are most vulnerable to and suggests ways to avoid them while devising a robust set of company-specific metrics for KM.

Step 10: Real-Options Analysis for Knowledge Management

The tenth step—measuring ROI—must account for both financial and competitive impacts of KM on your business. This step guides you through the process of selecting an appropriate set of metrics and arriving at a lean but powerful composite. We will use the Nobel Prize-winning real-options approach for analysis. We will also evaluate many ways in which real-options data can be tracked. We also see how successful companies have approached metrics, what errors they have made in the past, and how you can learn from their mistakes.

Being able to measure returns serves two purposes: It arms you with hard data and dollar figures that you can use to prove the impact of effective KM, and it lets you refine KM design through subsequent iterations.



LESSONS LEARNED

The 10-step road map is built on years of cumulative research involving small and large companies in a variety of industries worldwide. It is a road map that—unlike a cookie cutter methodology—will help you build both a KM strategy and a KM system that is tailored to *your* company.