

# Scenarios and models for Training Pilots

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**Abstract:** This paper aims at illustrating scenarios, models, results of the models and the experiences carried on within the EC 6FP TENCompetence project Pilot Trainings. It is focused on elucidating how to plan, model and organize pilots training process and how to adopt advanced best practices for creating patterns in order to improve the partners training business opportunities.

**Keywords:** Learning Processes Modelling, Training Pilots.

**Reference to this paper should be made as follows:** Ruskov A., Ruskov P.,(2007) Scenarios and models for Training Pilots, 3rd TENCompetence Workshop, 21-22 June 2007, Barcelona.

**Biographical notes:** Andrey Ruskov is a PhD student in Computer Science. His present research focuses on process modelling.

Petko Ruskov received his PhD degree in Computer Science from the Technical University (Sofia) in 1984. He is a professor at the *St. Kliment Ohridski* University of Sofia and is currently responsible for both "e-Business and e-Governance" MSc. program and the e-Business research at the University. His ongoing scientific work and consulting interests include: e-Business, Education and Business Process Management.

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## 1 INTRODUCTION

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A senior executive at a company occasionally reports that the process of training and bringing employees with required competences has been quite difficult, even though the company has implemented an enterprise application to support its HC training processes. It has been hard for many reasons - bringing employees on board involves a large number of certain steps and of many different systems., HR personnel finds the training courses of the new enterprise application complex to use, and staff turnover leads to high training and quality assurance costs. Instead of further centralizing of the training process, the manager expected that a better solution would enable the workers to create and share training patterns and scenarios of common training activities. Any worker could then use these scenarios and patterns as starting points of their future training across the various systems training needs (Moody P. and all 2006).

TENCompetence Project aims to support individuals, groups and organisations in lifelong competence development by investigating and establishing the technical and organisational infrastructure, while using open source standards-based, sustainable and innovative technology (<http://www.TENCompetence.org/>). The infrastructure is going to maintain the creation and management of learning networks of individuals, teams and organisations. Project networks will support the lifelong competency development of the participants from the basic levels of proficiency up to the highest levels of excellence. (Koper, E.J.R., & Bennet, S. 2006, Kew, C. 2006)

One of the project goals is to run training pilots in a preliminary selected field to ensure the validity and viability of the project approach. It is extremely important that users and stakeholders of the project are prepared for working with the TENCompetence infrastructure and content. The appropriate education and training will be provided and a training pilot will outline the training process beforehand.

The training pilot is focused on preparing TENCompetence users to create a shared and full understanding of the project infrastructure and to apply the project results and infrastructure in their organisation. Learning from authors and experts of the system is an important aim of the training pilot. Trainees may enter the training at different levels of skill and with a different learning style and speed. This puts forward the demand for flexible training delivery.

This paper presents an approach to modelling the pilot training processes as a value added chain. It also describes two scenarios and models how to set up, run, and evaluate a training pilot, taking into account the project documents.

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## 2 TENCOMPETENCE PROJECT PILOT TRAININGS

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The TENCompetence pilots were established at the beginning of the project and will be further maintained to support research exchange in the academic and business community. For reasons of cost and time efficiency the length of each individual training

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effort needs to be as small as possible while the design and delivery methods should be optimised for effectiveness.

The following general training objectives were defined in the project deliverable TENCompetence Training Roadmap:

- To promote and enable the use of the TENCompetence infrastructure;
- To prepare a network of future TENCompetence service providers to sustain the TENCompetence infrastructure;
- To support the exchange of knowledge and competence development within the TENCompetence community of core partners and fellow researchers.

The specific task will offer training for participants in real-life pilot implementations in different organisational and international settings. This training addresses the competences involved in implementing the TENCompetence infrastructure within the pilots.

More specifically the objectives for pilot training are:

- To clarify the TENCompetence concepts and infrastructure;
- To clarify the Personal Competence Manager User Guide;
- To familiarize with the use of the Personal Competence Manager;
- To familiarize with the setting-up of a training pilot competence profile and audience;
- To provide with an opportunity to use methods and techniques to run - manage and support the implementation of the TENCompetence system;
- To provide with an opportunity to translate the TENCompetence concepts into specific situations where the system is implemented;
- To provide with an opportunity to evaluate the training pilot;
- To define target audiences.

The project's main target group consists of the pilot partners who investigate issues in the field of lifelong competence development and in related areas. Although this target group consists mainly of the pilot partners and their supervisors dealing with issues related to the TENCompetence project, it is also open to other associated partners who would like to become involved.

The pilot training activities follow the Personal Competence Manager (PCM) (see User Guide Personal Competence Manager (Kees de Vink 2007)). It uses service-based architecture to create a system which can address the above points by:

- Gathering together competence related information drawn from sources at multiple levels.
- Presenting and editing the information in a context, structure and format which is determined by the trainee.

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The pilot users and project partners will benefit from the three Phases and thirteen Step Processes. This is to ensure a high impact cost effective training experience.

### **Phase 1. Setting up a Training Pilot**

The user will follow the Guide Personal Competence Manager for conducting the pilot training process (Kees de Vink 2007).. These phase consist of the following six steps:

- Step 1: Define Community
- Step 2: Define Competence Profile
- Step 3: Define Competence
- Step 4. Define Action
- Step 5. Define Learners
- Step 6: Define Trainers

### **Phase 2. Running a Training Pilot**

The training uses the Four Quadrant model to achieve a given competence (see User Guide Personal Competence Manager, Kees de Vink 2007). It is an open structure that allows for the different design components (learning objects – not specifically or necessarily digital) to be placed in and planned. Learning activities can be invoked from within the learning objects but also by referring and proceeding from one to another. By customizing the training to meet the pilot needs, we can ensure that everyone in pilot's organization shares a common vision about the latest competence.

- Step 7. Start Training
- Step 8. Apply “hands-on” Learning
- Step 9: Facilitate Learning
- Step 10. Certification

### **Phase 3. Evaluating a Training Pilot**

The third phase follows the next three steps:

- Step 11. Measure success of Learning
- Step 12. Evaluate Learning
- Step 13: Track and Report Learning Results

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## **3 METHODOLOGY AND PREVIOUS WORKS**

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We go after the BPM methodology to model the pilot training processes (Scheer, Abolhassan, and. Kirchmer 2003). Our approach uses business process management tool to describe, to model, to animate and to simulate the scenarios of the chosen pilot training processes.



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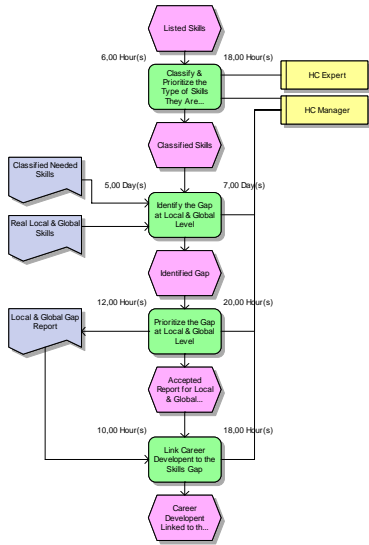


Figure 2c. Analysis process group

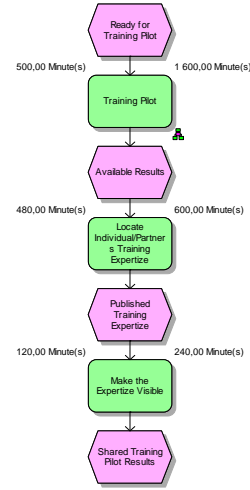


Figure 2d. Design process group

According to the statements from TENCompetence Project Description we can define two main groups of possible training scenarios:

- Trainee is looking for new skills/knowledge;
  - Trainee is looking for Competence profile fitting his/her potential
- Since the pilot training will focus on the first group we can use the next scenario:

Scenario 2: The trainee can apply for a new function within the organization. Then the function description requires that he/she improves on different competences.

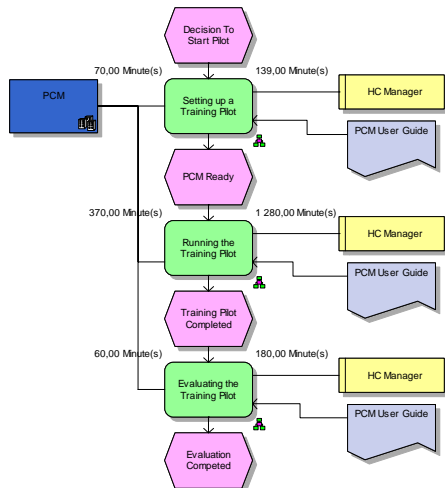


Figure 3. Pilot Training process

Figure 3 shows the Pilot Training process phases and Figure 4 – the relevant sub-processes: setting-up (4a), running (4b) and evaluating (4c) the training pilot.

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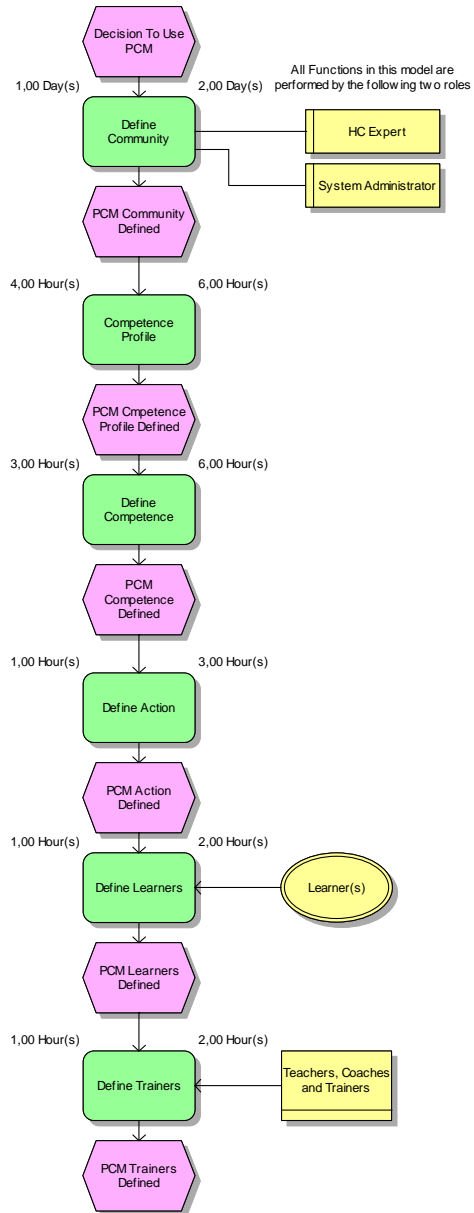


Figure 4a. Start Training sub-process

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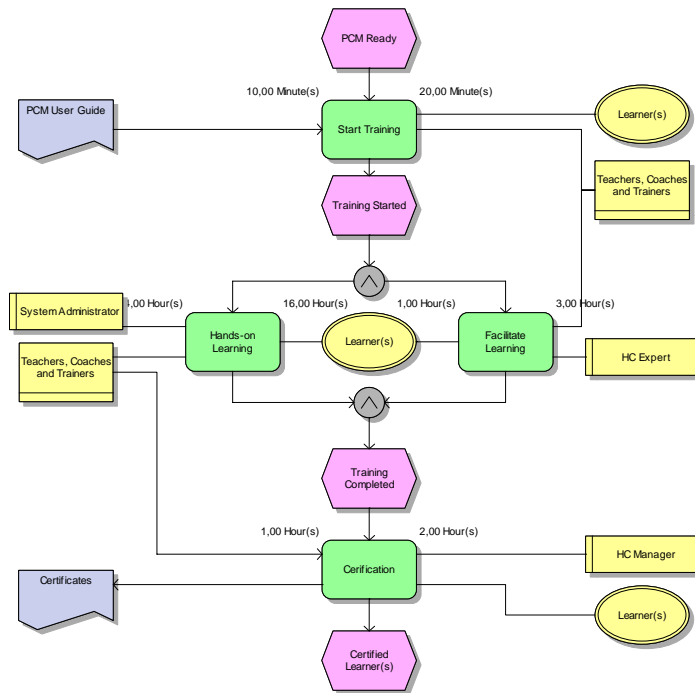


Figure 4b. Run-up Training sub-process

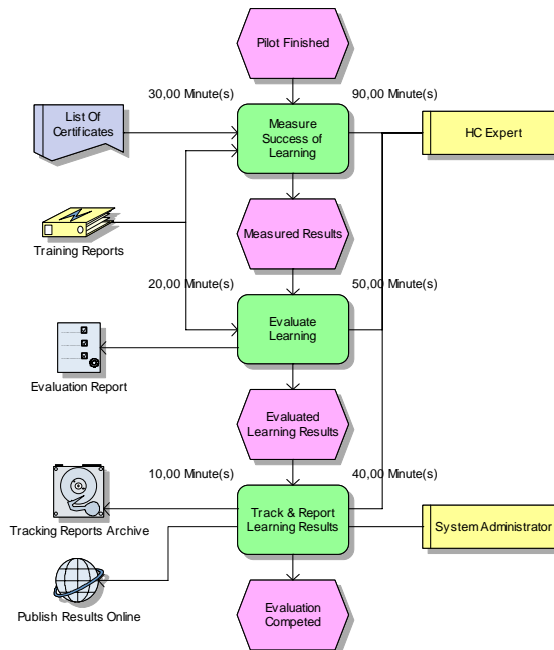


Figure 4c. Training Evaluation sub-process

## *Scenarios and models for Training Pilots*

The competition in recent years brought about a great need of employee training. To make recommendations for improving the pilot training processes, it is critical to understand the processes, resources and parameters for the activities and to find out the strength and weaknesses of the scenarios through modeling process. Figures show the examples of the parameters for both the sub-processes and processes as well as groups of processes. The assessment of the results of the animations with the input data in the models provided evidences for the HC decision makers. They can vary in scenarios, models and parameters into existing managerial experience and can make training process more effective. Also they can use models to review long-term training strategies.

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## **5 CONCLUSION**

The main contribution of the research is the design and modeling of training process activities. Present models and results can be implemented in both academic and business organizations. They give the opportunity to make training processes more effective and efficient. Models and patterns are a basic concept for supporting repeated work. The presented training pattern formalizes the process of a training activity thereby making it reusable as a template in future company learning activities. By sharing training patterns, company can “socialize” best practices and reusable training processes.

### **\*Acknowledgement\***

The work on this paper has been sponsored by the TENCompetence Integrated Project that is funded by the European Commission's 6th Framework Programme, priority IST/Technology Enhanced Learning. Contract 027087 ([www.TENCompetence.org](http://www.TENCompetence.org))

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