



Internal Evaluation

THE INTERIM REPORT

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December 2010



Summary

This interim evaluation report outlines an internal evaluation framework for the MNEMOS project, elaborating results and impact capturing indicators proposed for measuring project performance, outcome and outputs. It concludes with some practical recommendations for the further development of the learning platform. The report offers expertise-based advice and support to the project partners in relation to establishing the conceptual validity of the ECH concept and the development of ECH methodology (deliverable 8), skills matrix (deliverable 9) and e-Learning platform (deliverable 15).

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1. Purpose of this Report

The purpose of this interim evaluation report is to provide objective advice and support within the formative evaluation process, to contribute to improving the project performance during the project development and implementation phases, and with a longer-term perspective contributing to the sustainability of the project's outcomes.

2. Background

This is the interim report on the MNEMOS project, which aims to address a totally new area of Vocational Education and Training (VET) - Enterprise Cultural Heritage (ECH) management. The need for ECH management arises from the fact that the cultural traditions of any enterprise, particularly in the craft industries, if managed, can encourage an innovative work approach and lead to implementing innovations in products. It is acknowledged in the relevant literature that mature SMEs established 40 or more years ago have a tendency to be less innovative than those more recently founded. This situation in each particular SME can be remedied by revisiting established assumptions about the company's products and services, its strengths and the resources available in order to generate new insights into the product portfolio.

MNEMOS thus aims to develop an innovative vocational training approach in order to exploit the potential of ECH management in SMEs and improve the quality of VET practices for non-formal learning. This training approach is expected to assist the development of new competencies and skills of individual workers and facilitate a more effective use of ECH. Altogether, it will result in enhanced competitiveness of SMEs. Quality and richness of the developed material will be ensured by its validation through a number of pilots in the selected SMEs.

Following Work Package 10 'Project Evaluation', the evaluation of the project is organised in two parts: internal and external. As the external evaluation covers the



process of the project and the development of the outcomes, the internal evaluation will look at the conceptual validity of the ECH framework in order to inform the development of the planned outcomes, i.e. training tools, which aim at enhancing the competitiveness of SMEs. As a result of this route, the internal evaluation at this stage aims to have a formative effect and addresses the following:

1. To what extent is the Enterprise Cultural Heritage framework theoretically sound?
2. What is the basis for the indicators capturing the results of the project?
3. How can the impact of ECH management be captured?

3. Towards an internal evaluation framework

As a result of the project partners' efforts Enterprise Cultural Heritage is defined as a company's asset deriving from the company's historical evolution. This asset comprises of various elements, such as products, services, processes, methods and other artefacts associated with the enterprise's lifecycle. Another dimension of this asset is a tacit knowledge, though being possessed by people, it inherently resides in the aforementioned elements. It is assumed that making use of this ECH asset will foster latent innovation and underpin further competitiveness of an enterprise.

It will be noticed that the conceptual level of ECH is quite complex, which makes it difficult to translate it into particular training material. Moreover, in order to monitor the influence of ECH management on enterprise competitiveness it needs to be somehow captured or measured, even if indirectly. Typically this can be achieved by using a relevant and reliable method. However, due to the fact that ECH is a relatively fresh concept stemming from practice rather than from theoretical advances, an effort was made to map its key characteristics and match them with established organization studies related theoretical frameworks. Considering the above definition of ECH, the following theoretical frameworks have been identified and mapped on to the salient characteristics of ECH: organisational culture (Barney, 1986; Martins and Terblanche, 2003; Shein, 1984), organisational intelligence (Halal, 1999; March, 1999; Yolles, 2005), knowledge management (Alavi and Leidner, 2001; Nonaka, 1994; Schultze and Leidner, 2002) and organisational memory (Moorman and Miner, 1998; Nevo and Wand, 2005; Walsh and Ungson, 1991). As a result of



the comparative matching, organisational memory was chosen as the most closely corresponding framework.

Organisational memory is a well-established concept grounded in information-processing theory. 'In its most basic sense, organizational memory refers to stored information from an organization's history that can be brought to bear on present decisions. This information is stored as a consequence of implementing decisions to which they refer, by individual recollections, and through shared interpretations' (Walsh and Ungson, 1991: 61). Elaborating on the decades of preceding research, 'it has generally been recognized that organizational memory consists of mental and structural artefacts that have consequential effects on performance'.

The main pillar of organisational memory theory is based on the premise that 'organizations functionally resemble information-processing systems that process information from the environment. As information-processing systems, organizations exhibit memory that is similar in function to the memory of individuals'. Our approach of using organisational memory theory to facilitate ECH management is concerned with information retrieval from the memory to contribute to the future competitiveness of SMEs.

The key constituents of organisational memory relevant to the management of ECH are individuals, culture, transformations, structure and ecology (Figure 1). Each of these constituent elements is outlined here to draw implications for developing an innovative vocational training approach exploiting the potential of ECH management in SMEs.

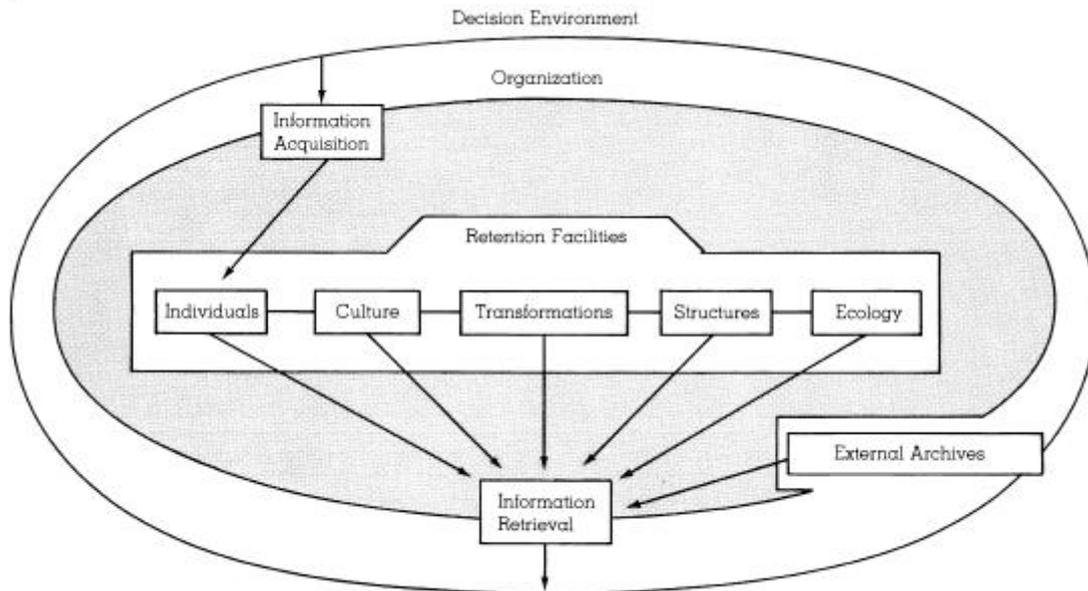


Figure 1: Decision-making and information retrieval in ECH

Individuals (Figure 1) have their own recollections of what has transpired in and around organisations, their products or services. In other words, individuals have ‘their own capacity to remember and articulate experience and in the cognitive orientations they employ to facilitate information processing’. Information technologies help individuals and organisations to keep records and files as a memory aid, and therefore, can be a support in constituting ECH. To target this category within the ECH methodology and skills matrix the following research could be considered:

- Beckett, A. J.; Wainwright, C. E. R. and Bance, D. (2000), “Knowledge management: strategy or software?”, *Management Decision*, Vol. 38, No. 9, pp.601 – 606.
- du Plessis, M. (2005) “Drivers of knowledge management in the corporate environment”, *International Journal of Information Management*, Vol. 25, No. 3, pp. 193-202.
- Argote, L. and Darr, E. (2000), “Repositories of knowledge in franchise organizations: Individual, structural and technological”, in: Dosi, G.; Nelson, R. R. and Winter, S. G. (Ed), *The nature and dynamics of organizational capabilities*, Oxford: Oxford University Press, pp. 51-68.



At the '**culture**' level past experience can be useful for dealing with future challenges and can be embodied in language, existing processes, symbols and organisational artefacts (stories, sagas, and the grapevine). This past experience can be reinforced by including elements of cultural awareness in the ECH training material. To target this category within the ECH methodology and skills matrix the following research could be considered:

- Hatch, M. J. (1993), "The dynamics of organizational culture", *Academy of Management Review*, Vol. 18, No. 4, pp. 657–693.
- Schein, E. H. (1984), "Coming to a New Awareness of Organizational Culture", *Sloan Management Review*, Vol. 25, No. 2, pp. 3-16.
- Smircich, L. (1983), "Concepts of Culture and Organizational Analysis", *Administrative Science Quarterly*, Vol. 28, No. 3, pp. 339-358.

The '**transformations**' element refers to various activities performed by a company in order to transform any input (whether it is a raw material or a new recruit) into an output (e.g. a finished product, a service provided). These transformations are usually affected by the technology company uses in its operations and are embodied in certain (operational) practices, which the company may retain for long periods of time. Rationalising these (transformation-oriented) practices may lead to innovating or enhancing the quality of the company's products or services. The ECH training material needs to have a capacity to address the key factors of the transformational process contributing to improving the quality of existing products and the creation of new products. To target this category within the ECH methodology and skills matrix the following research could be considered:

- Dougherty, D. (2004), "Organizing Practices in Services: Capturing Practice-Based Knowledge for Innovation", *Strategic Organization*, Vol. 2, No. 1, pp. 35-64.
- Senker, J. (1993), "The contribution of tacit knowledge to innovation", *AI & Society*, Vol. 7, No. 3, pp. 208-224.
- Rouse, W. B. and Boff, K. R. (2001), "Strategies for value: Quality, productivity, and innovation in R&D/technology organizations", *Systems Engineering*, Vol. 4, No. 2, pp. 87 – 106.

Organisational **structure** needs to be considered in the light of its implications for individual role behaviour which may provide a repository where organisational information can be stored and reflected as the institutionalised myths of society that are sustained and legitimised by members of an organisation. The level of



organisational design, where structure belongs, is beyond the scope (VET) of the training material to be developed as it usually lies within the competency of top management. However, in an attempt to target this category within the ECH methodology and skills matrix the following research could be considered:

- Lei, D., Slocum, J. W., and Pitts, R. A. (1999), “Designing Organizations for Competitive Advantage: The Power of Unlearning and Learning”, *Organizational Dynamics*, Vol. 27, No. 3, pp. 24-38.
- Mintzberg, H. (1981), “Organization design: fashion or fit?”, *Harvard Business Review*, Vol. 59, No. 1, pp. 103-116.
- Rivkin, J. W. and Siggelkow, N. (2003) “Balancing Search and Stability: Interdependencies among Elements Organizational Design”, *Management Science*, Vol. 49, No. 3, pp. 290-311.

‘Ecology’ in its essence refers to the actual physical structure or workplace environment of an organisation and thus helps to shape and reinforce behaviour prescriptions within that organisation. For instance, employees' interpersonal experiences can be affected by the physical layout of their workspace and premises. Subsequently visitors can also be affected by employees' prescribed behaviour and interior office design. As a result, workplace ecology retains information about an organisation and its membership. Employees may directly or indirectly feel the impact of the organisation's premises or interior design, thus, this aspect can be included into the ECH training material. To target this category within the ECH methodology and skills matrix the following research could be considered:

- Ekvall, G. (1996), “Organizational Climate for Creativity and Innovation”, *European Journal of Work & Organizational Psychology*, Vol. 5, No. 1, pp. 105-123.
- Schneider, B., Gunnarson, S. K., and Niles-Jolly, K. (1994), “Creating the Climate and Culture of Success”, *Organizational Dynamics*, Vol. 23 No. 1, pp. 7-19.
- Burton, R. M.; Lauridsen, J. and Obel, B. (2004), “The impact of organizational climate and strategic fit on firm performance”, *Human Resource Management*, Vol. 43, No. 1, pp. 67 – 82.

The above discussion outlines the potential use of the ECH concept for development of new VET training material, aimed at providing guidelines for improving organisational competitiveness by contributing to employees' development in terms of new insights on existing and new products or services. In particular, the



aforementioned elements influencing and contributing to ECH longitudinal development could be considered in the ECH methodology and skills matrix.

The intention of this section is to inform the development of the content of the e-learning material as at the conceptual level ECH is quite complex and fairly new, which makes it difficult to translate it into particular training material. Therefore this section provides indicative sources which could be considered while designing and developing training material.

4. Devising indicators capturing the results of the project

This section suggests indicators for evaluating of the e-learning platform, guided by the preceding discussion. The following indicators have been formulated to assist with capturing the results of the project:

- **Indicator 1:** Efficiency of e-learning platform

The purpose of this indicator is to ensure that the developed e-learning platform is sufficiently easy to use and users can promptly locate the desired online material. To measure this indicator the following data collection method will be used. The users of the e-learning platform will be asked to fill in the following online questionnaire:

a) To what extent do you find the online learning environment easy to navigate?

Scale: 1-Not easy at all, 2-Fairly easy, 3-Very easy

b) Do you find the online material sufficiently comprehensive to guide your learning?

Scale: 1-Too basic, 2-Sufficient, 3-Comprehensive

c) Any other comments:

- **Indicator 2:** Adequacy of the non formal learning in supporting ECH exploitation for enhancing SME competitiveness



The purpose of this indicator is to raise awareness of ECH by attesting that the ECH competences and skills matrix provides sufficient insight into the key elements of ECH in order to enhance the existing working practices at the individual scale. To measure this indicator the following data collection method will be used. The users of the e-learning platform will be asked to fill in the following online questionnaire:

a) To what extent was the provided material useful in indicating skills and/or competences required for using ECH?

Scale: 1-Not at all, 2-Supportive, 3-Insightful

b) Do you find the depth of the material provided sufficient to support your interest?

Scale: 1-Not at all, 2-Sufficient, 3-Comprehensive

c) Any other comments:

- **Indicator 3:** Effectiveness of the training material to support ECH management

The purpose of this indicator is to demonstrate that ECH management can be supported and/or facilitated effectively by the training material provided. To measure this indicator the following data collection method will be used. The users of the e-learning platform will be asked to fill in the following online questionnaire:

a) To what extent was the provided material about the ECH management helpful for rationalising and/or advancing existing management functions in your organisation?

Scale: 1-Not at all, 2-Fairly helpful, 3-Very useful

b) Have you got any impression on how the ECH asset can be used in your practice?

Scale: 1-No, none at all, 2-Yes, basic impression, 3-Yes, good impression

c) Any other comments:

The results of the above mentioned surveys will be summarised, analysed and reflected in the project evaluation report. To access the online version of the proposed surveys please follow the link:



http://www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION&sm=pq1HfTmqzq6qEW912%2fSUbSosDcRgcGsOBhJDSH MWDSw%3d

5. Capturing the impact of ECH management

It is virtually impossible to capture the impact of ECH management per se, as this would require the future users of the training material to report on their ways of incorporating the material learned into the process of improving existing or creating new products or services. Therefore, this impact will be captured indirectly as the awareness of the users of the e-learning platform encapsulated in 1) a targeted search of material available within the platform and 2) an opportunity to log their interest in developing particular material in future. Both these characteristics can be automated. The targeted search for specific material can be traced by the use of Google analytics or a similar functionality developed within the e-learning platform. The opportunity to log or request a development of a particular material can be ensured through **learners' feedback** within the e-learning platform in two ways: as a follow-up on a particular subject matter or as suggestions towards developing a new section of the material.

6. Recommendations

This report aims at providing a formative input to the ongoing project activities, mainly deliverables 8 and 15. There are quite a few suggested comments in sections 2 to 5. This section indicates the most functional recommendations in relation to the proposed results and impact indicators.

- a) Google analytics (www.google.com/analytics) can be used to trace the use of the training material and particularly completion of the training sessions.
- b) The training material pages can use working thumbs up and down icons, also known as Like  and Dislike, to indicate visitors' satisfaction with the content provided.



- c) Training material pages can be shared using Twitter, Facebook or any social bookmarking service, as illustrated below:



- d) Learners' feedback can be captured in many ways:
- i) As an online questionnaire, located in separate frames on the selected web pages;
 - ii) As a redirect to any survey website, e.g. www.surveymonkey.com
 - iii) As a contribution to www.linkedin.com ECH management pages
- e) Simplified users' registration, i.e. email address only, can be utilised to communicate with those users who want to provide additional feedback or to suggest further areas of interest for the future ECH development.
- f) The learning platform (deliverable 15) can utilise publicly available content repositories like www.youtube.com, www.slideshare.net and others.

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