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English version

## Standardization of an Innovation Capability Rating for SMEs

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## Foreword

CWA 15899:2008 was prepared by the CEN Workshop 35 - Standardization of an Innovation Capability Rating for Manufacturing SMEs

The production of this CWA (CEN Workshop Agreement) was formally accepted at the Workshop's kick-off meeting on 28 June 2007 in Brussels.

The final review/endorsement round for this CWA was successfully closed on 21 June 2008. The final text of this CWA was submitted to CEN for publication on 10 October 2008

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Comments or suggestions from the users of the CEN Workshop Agreement are welcome and should be addressed to the CEN Management Centre

The CEN Workshop members who have supported the document are (in alphabetical order):

- Association française de normalisation (AFNOR)
- A.T. Kearney
- Fraunhofer-Institut für Arbeitswirtschaft und Organisation (IAO)
- OSEO Innovation
- WITTENSTEIN AG

Innovations are a fundamental measure to guarantee a competitive advantage. Hence for companies the assessment of their innovation capability is an important step to derive options for actions in order to remain competitive.<sup>1</sup> In general, small and medium-sized enterprises (SME) show the greatest development potential.<sup>2</sup>

However, much of the innovation potential remains unrealised within many SMEs. To a large extent, this is due to a lacking innovation strategy and an inefficient innovation process, which prevents a rapid and consequent transformation of innovative ideas into marketable products and services. Not being aware of one's own innovation capability is a reason why market opportunities remain unrealised.<sup>3</sup>

A promising way for enterprises, which are oriented towards innovation, is to install a process of continuous measuring and evaluating of ones company innovation capabilities and innovation management performance

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<sup>1</sup> Bullinger, H.-J.; Wagner, K.; Rogowski, T.; Bannert, M.: Innovationen im Unternehmen ermöglichen. In: Information Management und Controlling, Sonderausgabe 2005, S. 34-37.

<sup>2</sup> Manufuture: <http://www.manufuture.org>, 2003

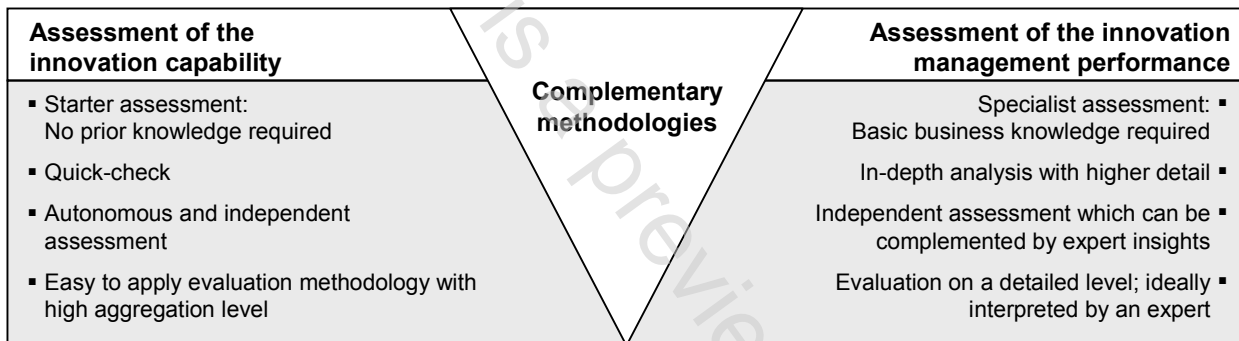
<sup>3</sup> Slama, A.; Spitzley, A.: An approach for measuring and assessing the innovation capability of manufacturing companies. PAS 1073. Beuth: Berlin, 2008.

– both internally over time and in comparison to other businesses – in order to strengthen the innovative capabilities of the company.

Further to the goal to improve innovation capabilities and innovation management performance, the ability to finance innovation projects is a basic requirement. Very often SMEs only show a low equity ratio, a fact that complicates the financing of innovations with own funds. Therefore, in most cases access to external capital is an inevitable must for SMEs.<sup>4</sup> Currently a rating system on innovation capability and innovation management performance is not available. Further, such a system could clearly help to support communication internally and with third parties such as customers and could enable enterprises to develop future innovations as well as to ensure a greater transparency on the strengths and weaknesses of the enterprise and its potential to sustainably innovate.

Therefore, this document aims for a definition of a systematic and consistent method to measure and evaluate the capability and performance of SMEs in innovation management.

This CWA focuses on self-assessment based on a holistic approach to innovation capability and innovation management. To cater for the different needs and maturity levels of small and medium-sized enterprises this CWA comprises two parts, integrating two complementary methodologies for evaluating the innovation capability and performance (Figure 1).



**Figure 1: Complementary methodologies for evaluating innovation capability and innovation management performance**

The assessment of the innovation capability focuses rather on “soft” factors, that is throughput factors, enabling the enterprise to innovate. In the following, innovation capability refers to these “enabling” factors and does not claim to assess other aspects of the an organisation's capability of an organisation such as the capabilities of individuals or the value of R&D investment. The assessment of the innovation management performance puts a stronger focus on the results and the output of a company's innovation management activities. If a benchmark is possible the innovation management activities may be linked to profitable growth.

<sup>4</sup> Spath, D.; Aslanidis, S.; Rogowski, T.; Ardilio, A.; Wagner, K.; Bannert, M.; Paukert, M.: Die Innovationsfähigkeit des Unternehmens gezielt steigern. In: Fokus Innovation, Kräfte bündeln; Prozesse beschleunigen. Hrsg.: Bullinger, H.-J.; Carl Hanser: München Wien, 2006, p. 41-109.

The underlying models consider the most important and most significant success factors<sup>5</sup> throughout the innovation process. Indicators of these success factors provide information about SMEs' strengths and weaknesses.<sup>6</sup> Both models have been proven in practice.

Benefits for SMEs applying the assessment of the innovation capability:

1. Innovation capability is shown as aggregated numeric scores.
2. Predefined set of the most important success factors and indicators that have major impact on the innovation capability.
3. Comparability of the innovation capability by a specified calculating scheme and a predefined set of indicators – the calculated score for one enterprise can be compared to the scores of other enterprises.
4. Transparency on strengths and weaknesses of the innovation capability based on a hierarchical model of indicators, success factors and the nine Fields of Design – the changes of several scores over a period of time gives information about an overall development of the innovation capabilities, both for the overall company as well as in the particular areas.
5. Improved communication internally and the possibility to use the results when communicating with third parties like customers, partners, investors or media.
6. Benchmarking against internal reference points or against reference points from other companies (in case data is available).

Benefits for SMEs applying the assessment of the innovation management performance:

- a) Innovation management performance is evaluated in a very detailed way.
- b) Transparency on strengths and weaknesses in innovation management performance based on a holistic innovation management concept with five key dimensions of innovation management.
- c) In-depth insights into the success factors and indicators that have a significant impact on the innovation management performance and the overall business impact.
- d) A systematic and sophisticated calculating scheme and a predefined set of quantitative indicators offering increased accuracy of data.
- e) Improved communication with third parties like customers, partners, investors or media as the detailed results enable to demonstrate the superior innovation management performance and the potential to sustainable innovation.
- f) Benchmarking against internal reference points in the past or against a reference point from other companies (if data available) at a given point of time. A descriptive evaluation of the enterprises performance relative to other companies provides a clear picture on the competitive position.

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<sup>5</sup> Kirner, E.; Maloca, S.; Rogowski, T.; Slama, A.; Som, O.; Spitzley, A.; Wagner, K.: Kritische Erfolgsfaktoren zur Steigerung der Innovationsfähigkeit. Empirische Studie bei produzierenden KMU. 2. Auflage, Fraunhofer IRB: Stuttgart, 2007.

<sup>6</sup> Diedrichs, E.; Engel, K.; Wagner, K.: European Innovation Management landscape – Assessment of current practices in Innovation Management Consulting. Approaches and Self-Assessment Tools in Europe to define the requirements for future best practices, 2006.

## 1 Scope

The method of measuring and benchmarking an enterprise's innovation capability and performance as well as the underlying critical success factors and indicators addresses small and medium-sized enterprises with less than 500 employees manufacturing products and/or rendering services. It is basically applicable across all industries. These SMEs seeking transparency on their innovation capability and performance can use the method by themselves.

The numerical scores resulting from a standardised calculation can be used to demonstrate the innovation capability and performance internally as well as externally e.g. by creditors during credit assessments or by customers convincing them.

## 2 Normative References

This CWA contains definitions from other publications, with dated or undated links. These normative links are quoted at the particular place, the publications themselves are listed below. With dated links, later changes or revisions of the publications are only part of this CWA, if they are included by changes or revisions. For undated links, the last issue of the referred publication (including changes) applies.

DIN 69904, *Project business – Project management systems – Elements and structures*

EN 1504-1, *Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 1: Definitions*

EN ISO 9000:2005, *Quality management systems – Fundamentals and vocabulary (ISO 9000:2005)*

PAS 1062, *Implementing knowledge management in small to medium-sized enterprises*

PAS 1063, *Implementing knowledge management in networks of small to medium-sized enterprises*

PAS 1073, *An approach for measuring and assessing the innovation capability of manufacturing companies*

## 3 Terms

The following terms are to be considered when using this CWA (in alphabetic order).

### 3.1

#### **Benchmarking class**

The benchmarking class is the sample an enterprise wants to compare itself with.<sup>7</sup>

### 3.2

#### **Business model**

A business model describes how an enterprise creates, sells, and delivers value to its customers. There are three main areas where the business model can drive innovation: Value proposition – what is sold – how it is created and sold and the target customer – to whom it is delivered.

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<sup>7</sup> Brunswicker, S.; Diedrichs, E.: Information on IMP<sup>3</sup>rove for Innovation Management Professionals V 1.3; Information Package IMP<sup>3</sup>rove, 2007.