A Software Support for
the EFQM Model of Excellence

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Abstract: The GOA-WorkBench® supports the Business Excellence implementation process. Special emphasis is also placed on the application and training process within small and medium sized enterprises (SMEs) . The toolkit has been modularised in order to meet the individual demands of a given company. The core of the toolkit consists of the Group Opinion Analyser and several knowledge bases such as GOA-EFQM. This is the first application for supporting the EFQM model in all its phases that has been approved by the EFQM.

The word "quality" has developed a new and important meaning over the last few years. It no longer merely describes an inherent attribute of products or processes. Nowadays, quality is a constituent of every business area through the Total Quality Management (TQM) concept. Naturally, this plays a major role in the way companies work internally and do business. TQM is the consequent sequel of basic quality activities of many companies and numerous efforts to prove quality with the certification according to ISO9000.

The ISO9000 defines the basic quality standards a company must meet to satisfy current standards in the area of process and production. TQM enlarges this picture in the direction of what could be done in all areas of a company to achieve quality for all internal and external processes as well as all parties involved e.g. stake holders. The results of this process can be seen in the overall performance of the organisation and in the following quotation from the US National Institute of Statistics and Technology (NIST) in regards to the Michael Baldrige National Quality Award – the US (American) version of TQM.

The "Baldrige Index" once again has outperformed the Standard & Poor's 500 by more than 480%, according to the Commerce Department's National Institute of Standards and Technology.

The "Baldrige Index," a fictitious stock fund, is made up of publicly traded U.S. companies that have received the Malcolm Baldrige National Quality Award during the years 1988 to 2000.

NIST found that the group of six whole company winners outperformed the S&P 500 by 4,8 to 1, achieving an 1186% return on investment compared to a 211% return for the S&P 500.

Figure 1: Financial Effects of outstanding Total Quality Management [http://www.nist.gov/public_affairs/releases]

The European equivalent of the MBNQA is the European Quality Award. The EAQ was implemented by the European Foundation for Quality Management (EFQM). This body was set up in 1988 by the Presidents of 14 major European companies to promote a European quality culture and to reinforce European competitiveness. It has also been endorsed by the European Commission. The present membership consists of more than 800 organisations and is the sole body responsible for the further development of the EFQM Model of Excellence – which forms the basis for all regional, national, and/or international quality awards. The EFQM model identifies a set of nine criteria, blocked in enablers and results. This framework can be used to assess the quality organisation of a company and defines a set of improvement areas that can be assessed for each criterion.
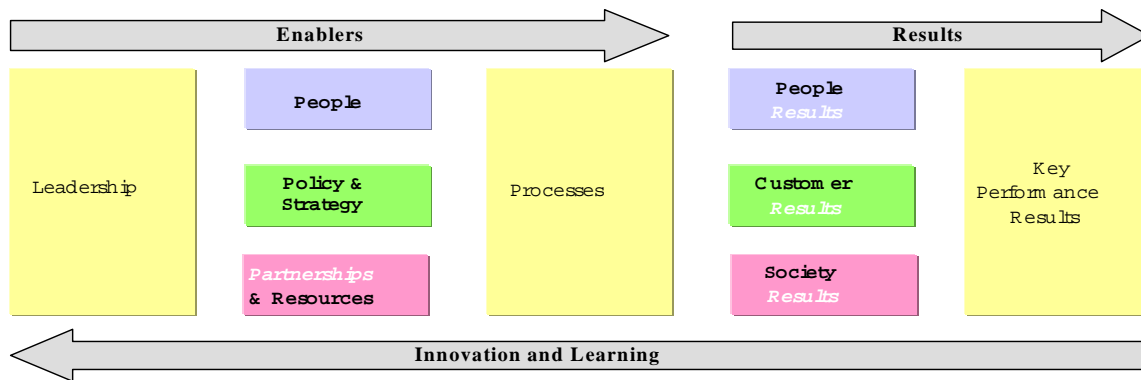
Figure 2: The EFQM-Model

A study done in 1999 within the ESPRIT Project **AnaFact** (Analysis of Human Factors in TQM Implementation) shows how important TQM is to managers (Figure 3).
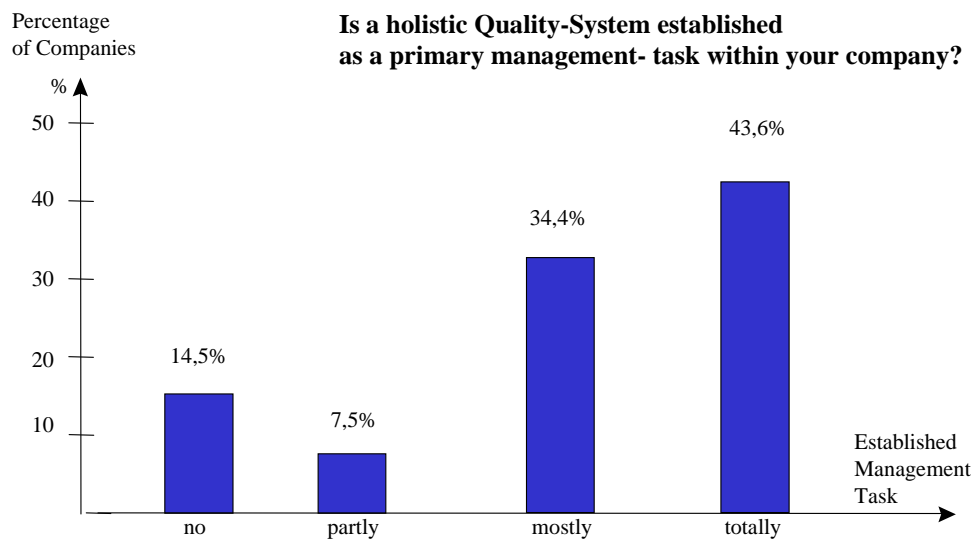

Figure 3: The importance of TQM for European Management

Similar results were also confirmed in 2000 by the INNOVATION project **TQM-Net** (Total Quality Management Support Network for SMEs) and in 2001 by the TEN-Telecom Project **TeleBEN** (Telematic support Business Excellence Network).

Many SMEs found that ISO9000 was not the answer to their quality management needs and are now looking at EFQM as an alternative. An article that appeared in the Basque newspaper "El Diario Vasco" on May 15, 2000, indicated that 20% of those companies that are discontinuing the implementation process of ISO 9000 are now choosing EFQM.

A number of interlinking European research projects (AnaFact, HRM-WorkBench, IKEMSATT, TeleBEN, TQM-Net) have been installed to develop support tools and materials for the implementation of the EFQM Model of Excellence as a result of the above-mentioned demands. Special emphasis has also been placed on the needs of small and medium-sized companies.

The core solution to these growing demands is GOA-WorkBench®. It is considered to be unique because it provides full support for the entire TQM process which starts with the identification of business key drivers, supports the inquiry phases and leads to the self-assessment concept which in this completeness is not supported by the existing tools. It is a modular product which consists of various individual knowledge bases which in turn address specific functions. (Figure 4).
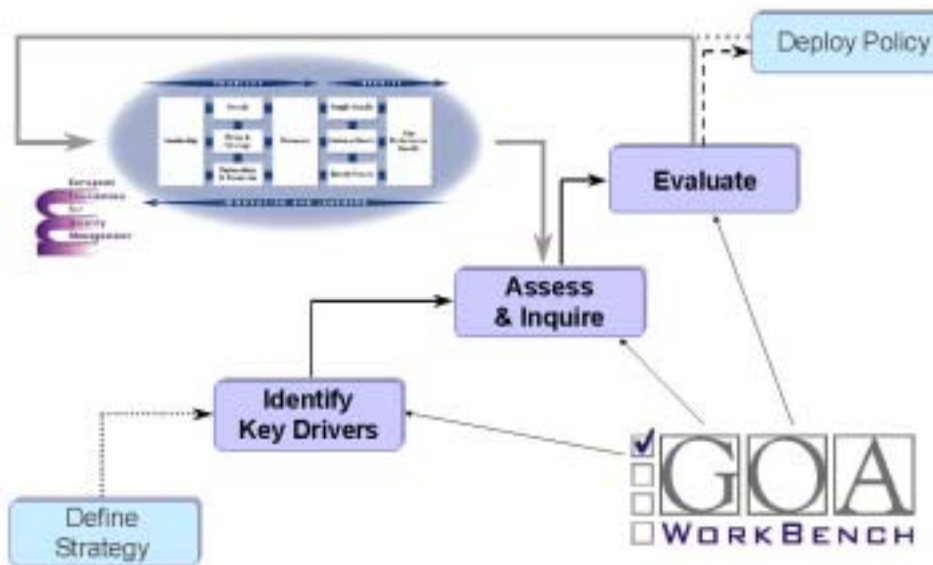
Figure 4: GOA Application Architecture and link to the EFQM Model.

The TeachWare module can be viewed as a module which links all modules together as well as giving a thorough description of the background and foreground of TQM concepts. This in turn creates the required TQM background (i.e. philosophy, methods, social mind, etc.) for the user and provides real added value to the GOA-WorkBench®.

By its design, GOA supports the working process of a Quality Manager: The implementation of the TQM process can then begin with GOA-Objectives. This module provides a pre-selected list of strategic aims and goals for the company to let all decision makers vote on a) how important each of these objectives are to their given situation and b) the confidence he/she has in the ability to judge a specific topic. The results will then rank the identified objectives and the "confidence" status of the company. This information can then be used as a starting point to fine-tune the company's strategy.

The GOA-Inquiry module can then be used to support the design and implementation of large-scale inquiries such as customer inquiries. This tool offers a knowledge base with questions designed in such a way that they link directly to the respective chapters of the EFQM model. The questions can then be adapted to the company's specific reality, but will still retain this link, so that they can be compiled as a baseline for starting part of the assessment process. GOA-Inquiry also permits answers to be clustered and the possibility of benchmarking this year's results with last year's data. All results can be given both as figures and as graphs.

Figure 5: GOA-EFQM assessment interface

The GOA-EFQM is another interesting module which is designed to undertake a complete self-assessment according to the EFQM approach. It contains questions from the EFQM guidelines and an inquiry engine to distribute subsets of the questions to relevant input givers. The returned "opinions" will then be automatically accumulated and offered to the assessor as a starting point for his/her work. The tool then supports the assessor in all steps of the assessment and automatically calculates all benchmark values.

However, even with the GOA toolkit situations may occur that need specific actions to overcome obstacles and get things done. An experienced project-leader may be needed to handle such situations. Another alternative is to get help from consultants. The trick for successful advice in the area of TQM is often not only to get support in the method-specific tasks, but also to find a partner with practical experience in the transfer of concepts to real world processes. This means a long-term relationship, where the consultant is able to solve everyday problems within the company. Otherwise the best concepts die due to the lack of applicability.