DQS-UL IN DIALOG

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Editorial

Climate change is coming home to each of us… in Germany, established wines are suffering from weather that is too warm for them, while southern grapes are moving north. And that is just one example, and a relatively harmless one, all things considered. But what about the important problems?

We do not have to stand by and watch helplessly, though. ISO 50001 is just one example of many efforts aimed at improving energy efficiency and reducing energy consumption in organizations of any size and any business sector. One of our customers, Gütermann GmbH, has implemented such an EnMS and in the report starting on the next page, they summarize the advantages "in a nutshell": energy efficiency, CO2 reduction, and tax benefits. In my book, that is quite a bit.

Talking about management systems: in this edition we are starting with a series of articles on the general subject of "audits", such as the techniques and methods of audit planning, audit conduct, and follow-up. And finally, with this edition I now have the honor to introduce myself as the new Managing Director of DQS GmbH, a position I accepted on 1 September, 2012. In his double capacity as Managing Director of DQS GmbH and DQS Holding both, Michael Drechsel will continue to work at my side until the beginning of 2013. After that time, he will concentrate his efforts fully on the management of DQS UL Group; the strong growth of the group and the challenges this poses for our own management system require the full complement of his expertise and experience.

For a quarter of a century, DQS has been a market maker and market mover, which owing to careful leadership and consistent value orientation maintains its position even in times of predatory competition and price wars. My task shall be to continue the successful tradition of DQS as a full range assessment provider, while at the same time strengthening our brand image as audit specialists within the German market. DQS GmbH will be serving and inspiring our customers all over the world, and contributing to the growth of the DQS-UL group.

*Götz Blechschmidt*
*Managing Director, DQS GmbH*

# An investment for the future

## Energy management "by a thread" at Gütermann

**The international thread manufacturer, located in the Breisgau region of southern Germany, is a top supplier to the automotive and many other industries, as well as to end users. With production sites in Spain, India, and Mexico, as well as offices in more than 80 countries, the family business has been expanding not only their product portfolio continuously, but also adding certifications as they went along the road of success.**

Looking at a string of finished yarn, you would not know just how much energy has been expanded for its production: a thread 5 000 meters in length requires 3.84 kilowatt-hours –the same amount will keep an old-fashioned 60 watt light bulb burning for 64 hours. Just for basic economic reasons, a manufacturer of threads must therefore be very efficient, especially when a large part of the manufacturing takes place in "energy-expensive" Germany. At the same time, the ongoing discussions about climate

change have increased the importance of reducing the emission of pollutants drastically. Many organizations have already been approached by customers and suppliers to that effect, as well as by the authorities. Being an industry leader, Gütermann has recognized this development, integrated an energy management system according to ISO 50001 into their existing management structures, and had it certified by DQS in May 2012.

The first steps in this direction had been taken many years ago already, when a materials flow analysis by the State Agency for Environmental Protection, using one representative article, already resulted in comparatively good results. Consistent further development towards comprehensively energy-efficient production processes, however, could only be achieved using a holistic approach on the basis of a certifiable energy management system (EnMS). As soon as that basis was provided by the German-language version of the standard, which came available in 2011, the top management of Gütermann decided to take the next step.

## Clear energy policy as the basis for energy objectives

Following top management's decision, Gütermann started to search for a competent partner for their certification. The decision in favor of DQS was made not least for the many years of excellent cooperation in the past. In order to carefully prepare the implementation of the EnMs, and to move forward quickly, an energy team was created with employees from various corporate areas, so that scattered know-how could be brought into the project in a meaningful manner. Finally, two consultants were selected for their good reputation and close proximity, and added to the team for additional support.

The first step regarding actual content was to pass Gütermann's Principles of Energy Policy. Top management formulated them as follows:

"A high level of quality and energy efficiency of all processes and activities is the foundation for guaranteeing the future of our company. In order to maintain and secure our quality demands, we start at the very beginning of the chain of supply, by consistently making our suppliers part of our energy policy. In purchasing, we take into account both energy efficient products and services. By constantly developing our processes further, we ensure the continual improvement of our products, activities, and our integrated management system. This also includes our commitment to the continual improvement of our energy related performance. Gütermann ensures that all information and resources are made available in order to achieve the strategic, operational, and particularly the energy-specific objectives. The adherence to legal requirements on energy input, energy consumption, and energy efficiency goes without saying for Gütermann."

Based on our energy policy, Gütermann was able to define the energetic objectives for the coming years. Some examples: short-term goals – that is, for 2012 – include energy efficiency improvements in a specific area of manufacturing (superstructure 4) by 5 %; the dye works will implement a so-called dye works management system to improve their energy efficiency by 1 % for electricity and 2 % for steam. The amount of energy conserved by a total of four measures equals the energy consumption of 50 single-family houses in Germany. The medium-term goal is to achieve a reduction in energy used for heating by 20 %, through the installation of new windows and renovation of buildings. Long-term goals include the optimization of heat recovery, as well as the continued improvement of production processes.

## Many individual measures

After the energetic objectives had been defined, project meetings were held two or three times a week. In one of the first meetings, the areas to be surveyed were defined. Dr. Eric Werner-Korall from DQS was available to identify the delta between the pre-audit and the system audit. Based on the pre-audit, the deltas were then defined within the project team, and a data collection form was generated in order to collect and record all data. From this data (ratio energy input vs. amount manufactured on each level for electricity; generation of floor plans for effluent/water, electricity, pressurized air and steam), tasks were derived for the individual members of the project team. This was followed by the concrete determination of energy performance indicators (ENPIs), and the successive supplementation of the list of all energy sources. Finally, the program also includes the detailed review and transfer of the current QM manual for our long-established certifications to ISO 9001 and ISO/TS 16949 to an integrated manual, which will also include the particular issues of the EnMS.


The preparations for implementation and certification of the EnMS were characterized by a variety of company-specific single measures, all of which resulted in meaningful data and figures for comparison, such as an analysis of the amounts of steam, water, effluent, electricity, and pressurized air distributed in the various buildings for the various production levels (spinning/doubling mill, dye works, winding, and the finished goods storage).

## A good investment

There were also some obstacles to overcome on the way to a well-functioning EnMS. One not so easy task was the allocation of individual energy carriers to the various production levels. This was not accomplished successfully until after the necessary measuring equipment had been installed. Another major challenge was assembling the list of EnPIs. To do that, we first had to identify the energy carriers, as well as their consumption and cost over the last three years, including the use of CO2. From this, we were able to draw some first evaluations, since we had been using more or less current figures from the last three years (e.g. evaluation of electricity: 100 % water power = zero CO2). This was followed by the identification of the share of each energy carrier in relation to the total consumption, which already resulted in some emphasis for later energy savings even before the project started. From this, we were able to derive definitions of measurement systems and their accuracy. The effort involved in collecting such enormous amounts of data truly showed the efficiency of good teamwork, because we were able to split the work among the team members.

Admittedly, the actions required for implementation of the EnMS were sometimes troublesome and time-consuming. However, as an investment into our future, their benefit is obvious: transparent and concrete measures aimed at improving energetic performance facilitate all investment decisions, because they are now based on solid data, facts and figures. The concept of sustainability, which is the backdrop of an EnMS, is a useful marketing tool and helps to strengthen our market position, and to improve our brand image. At the same time, an active energy management system also involves all  of the suppliers. Clemens Schneider, the Energy Management Representative of Gütermann GmbH, gives a first summary of the project:

“Considering that we are a fully integrated manufacturer of threads, the implementation of an EnMS according to the energy management standard ISO 50001 is an important building block for securing our production site in Germany. With our EnMS, we have not only analyzed all energy-relevant processes, but together with our partners of many years from DQS, we have also identified hidden energy savings potential – and we intend to effectively transform them. In doing so, we have achieved a “triple crown”: continual improvement of our energy efficiency, reduced CO2 emissions, and resulting from both of this, tax breaks and subsidies.”

*Clemens Schneider*
*Energy Management Representative*
*Gütermann GmbH*
*Gutach im Breisgau, Germany*

***About Gütermann***
***Gütermann has been a purely family-run company since its foundation. For all this time it has stood for internationality and global openness. Its focus is on long-term customer relationships based on mutual partnership. The company headquarters is located in Gutach-Breisgau, Germany, with more production sites in Barcelona, Spain; Cuernavaca, Mexico; and Delhi, India. Gütermann maintains an international presence, with subsidiaries and representatives in over 80 countries. The company was first certified to ISO 9002 in 1995; in 1997 the certificate was upgraded to ISO 9001 and has been active since. After taking over the mainly technically oriented thread manufacturer Zwicky in 2000, Gütermann also became certified to ISO/TS 16949 for automotive customers. As of 2012, the company is now also certified to ISO 50001. In addition, Gütermann maintains a sector-specific certificate according to Oeko-Tex standard 100, which is applicable to a broad range of products and processing stages within the textile supply chain, and which confirms environmental compatibility and harmlessness.***

# ISO 19011

***Guidelines for Auditing Management Systems – including the principles of auditing, managing an audit programme and conducting management system audits, as well as guidance on the evaluation of competence of individuals involved in the audit process, including the person managing the audit programme, auditors and audit teams***

In December 2011, the new Guideline for Auditing Management Systems was published. This version replaces the old Guidelines from 2002, which was called "Auditing of Quality and Environmental Management Systems", with an expanded application for the auditing of all management systems. With this paper, DQS starts a series of articles focusing on the changes in the new Guideline ISO 19011 and the subsequent effects on internal auditing.

## Why this revision?

All standards and guidelines are subject to review and modification intervals. This is designed to ensure, on the one hand, that they address current practice and technological innovations; on the other hand, it allows for the experiences of users working with the standard to be included. This feedback from certified organizations, their customers, certification bodies, accreditation bodies, trade and industry associations, and other interested parties are first collected on a national level, analyzed and condensed. The national comments and change requests are then forwarded to the international councils. The members of these national and international councils also include employees of the German Society for Quality (DGQ).

If we look at the international standardization work of the past years, and at the same time observe the unbroken trend to continue to publish new or supplementary management system standards, all of which contain internal audits, it follows logically that after 10 years have passed, the ruling standard should undergo some serious renovation.

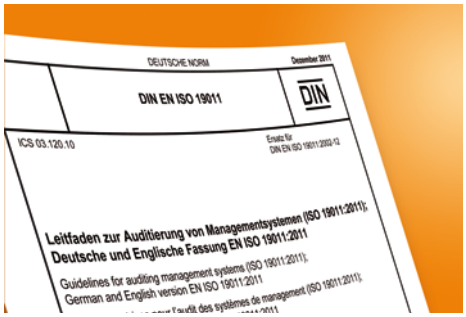
On the other hand, of course, we need to remember that techniques and methods for audit planning, audit conduct, and audit follow-up have been well established for more than two decades now, and that "auditing" does not need to be re-defined. However, there are adjustments, clarifications, detailing, and interpretations that have become necessary in order to for this Guideline to be able to fulfill the dramatically increased scope of its application. And there's another truly amazing aspect: if you ask around during an event to see who is familiar with it, the answers will disappoint you. Just one more good reason for us here at DQS to publish a series of articles on it here in our customer journal, DQS in Dialog.

## Transition provisions and times

This will be a short one. There are no provisions for timeframe for transition. The Guideline came effective upon publication in December 2011, and can be used since. Of course it helps that the document has the status of a "guideline" – but more on that in the next paragraph.

## Scope of applicability and status of the document

"Applicable to all organizations that need to conduct internal or external audits of management systems or manage an audit programme." Not much needs to be added to this sentence from chapter one. But you will need to remember that for the conduct of "external audits", ISO/IEC standard 17021 applies, which has adopted many passages from ISO 19011 in its new chapter nine – but not all of them and not completely, just to mention "Remote Audit Activities" and "Risk-based Audit approach". For this reason, whenever ISO


DEUTSCHE NORM

DIN EN ISO 19011

DIN

ICS 03.120.10

Leitfaden zur Auditierung von Managementsystemen (ISO 19011:2011);
Deutsche und Englische Fassung EN ISO 19011:2011

Guidelines for auditing management systems (ISO 19011:2011);
German and English version EN ISO 19011:2011

19001 references "external audits", it should be taken to mean "second party", that is supplier audits.

## Regarding the status of the document, please note this is a guideline!

What does that mean for its every-day use? A guideline provides information and orientation. A guideline does not stipulate requirements! That means, organizations are free to follow the instructions, to implement them – in whole or in part. The footnotes contained in various requirement standards for management system, which reference this standard, also do not turn it into a normative requirement. It is therefore up to each organization to decide if and which passages are practicable, useful, and can be implemented in their own company. But be careful: whenever you include statements such as "… our internal audit processes follow the principles of ISO 9011" or.. "audit programmes and audits shall be conducted based on ISO 19001", you elevate this Guideline to a document that contains requirements for your system. It may be a good idea to evaluate the formulations and wording in your own processes there. Another piece of advice: some, particularly sector-specific standards such as ISO/TS 16949, include precise requirements for

planning and conducting internal audits. Here, the legal principle of precedence applies. Whenever a standard valid and applicable to your organization includes requirements, those are valid, regardless of the guideline status of comprehensive auditing standard ISO 19011.

### The Guideline's basis message

If we were asked to summarize the basis message of the Guideline into a few words, we would probably come up with these principles:

- Invest more time and thought to determine which aspects and processes of your management system you want to invest the available auditor resources in, and that you want to audit intensively – make a selective decision.
- Give some thought to what your internal audit objectives really are (that is more than just establishing conformity!), and which audit methods are best suited in support of those objectives.
- Depending on the processes and audit methods selected, pick the persons best suited to the task. Determine the skills and competencies of internal auditors specifically for your own organization.
- Evaluate and continuously improve your audit planning, conduct, and follow-up.

To learn more about the most important innovations in the areas of audit principles, audit program planning, audit conduct (incl. audit methods), evaluation and improvement of audit programmes, and the competence of auditors, we invite you to continue to read this series of articles in the next issue of "DQS in Dialog".

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# *Achieving sustainability through risk management*

***Gary Cort and Natalia Scriabina from DQS South Africa explain how risk management is important to ISO 9004's approach to sustainability***

**Sustained success, as defined in the latest revision of ISO 9004, is a 'result of the ability of an organization to achieve and maintain its objectives in the long term'. Thinking for the long term without compromising short-term results has been a fundamental principle of sustainability practices since sustainable development was first defined. The implementation of sustainability practices is becoming more important for organizations searching for predictable development in today's changing business environment.**


### Eight areas to apply risk management

The ability to achieve sustained success depends on an organization's adaptability, codes of conduct, relationship with stakeholders and capability to innovate. Risk management is one of the processes that support sustained success. ISO 9004, revised in 2009 emphasizes the vital importance of monitoring and analyzing risks and opportunities resulting from changes in the business environment. It highlights eight areas where risk management can be effectively applied in order to achieve sustained success. Table 1 summarizes these processes, related areas of potential risks, recommended actions and corresponding clauses of ISO 9004.

*Table 1: Application of risk management to business processes for*

| Process | Areas of potential risks | Recommended actions | | | ISO 9004 clause |
|---|---|---|---|---|---|
| | | Identify | Evaluate | Mitigate | |
| **1. Resource management** | Availability of resources to execute plans and achieve objectives | x | x | | 6 |
| **2. Financial management** | Allocation and use of financial resources | x | | | 6.2 |
| **3. Partner relationships** | Partner relationships and partner capabilities | x | x | x | 6.4.2 |
| **4. Infrastructure management** | Safety, security, efficiency and other factors related to infrastructure | x | x | | 6.5 |
| **5. Knowledge management** | Changes of technology | x | x | | 6.7 |
| **6. Natural resources** | Availability and use of natural resources | x | x | | 6.8 |
| **7. Monitoring and analysis** | Changes of organizations environment | x | x | | 8 |
| **8. Innovation monitoring** | The innovation activities | x | x | x | 9.3 |

## Indicators of maturity levels

**ISO 9004 suggests that business processes can be ranked at one of the following five maturity levels:**

1. Basic – the organization only changes in response to fixing problems that have already happened
2. Proactive – the organization refocuses its improvement efforts on prevention, anticipating problems and assessing risk exposure
3. Flexible – a fundamental change occurs in the process system and the organization focuses on instituting malleable processes that can adapt to different situations
4. Progressive – the management system has been subsumed by the organizational culture, systems tend to rely less on formal procedures and instead trust to the commonly held beliefs of the organization to do the right thing
5. Achieving sustained success – the organization is 'self aware in a global context'. It is constantly searching for better ways to achieve success in a way that balances the interests of all affected parties.

Risk management practices applied to business processes are important indicators of maturity levels in achieving sustained success. For example, organizations that are 'flexible', 'progressive', and 'achieving sustained success' monitor risks related to the relationship and capabilities of key partners.

## Risk management and Dow Jones Sustainability Indexes.

In addition to the model of maturity levels provided by ISO9004, there are other recognized models designed to evaluate an organization's level of sustainability. One example is the DowJones Sustainability Indexes, which were created in 1996 and are widely used in financial and investment management. The maturity of a risk management process in an organization is an important element in the evaluation model. Factors taken into account are:

- distribution of responsibilities and authorities in risk management at the group level
- definition and deployment of:
  1. a uniform, group-wide risk analysis framework that may include risk assessment, risk management, risk communication and reporting
  2. a risk-assessment system based on evaluation of multiple parameters that may include probability, magnitude, time horizon and correlation
  3. a risk-response strategy to establish methods and decision criteria applied to retaining, transferring, or avoiding risks
- deployment of tools to rank risk exposures on a two-dimensional scale including probability and magnitude

Available free online, you can use the assessment from the Quality Professionals' Resource Centre website to verify that your knowledge of the future and the history of sustainability practices is up to date. It will highlight any areas that you may need to work on to effectively use ISO 9004:2009 in your work.

**About the authors**

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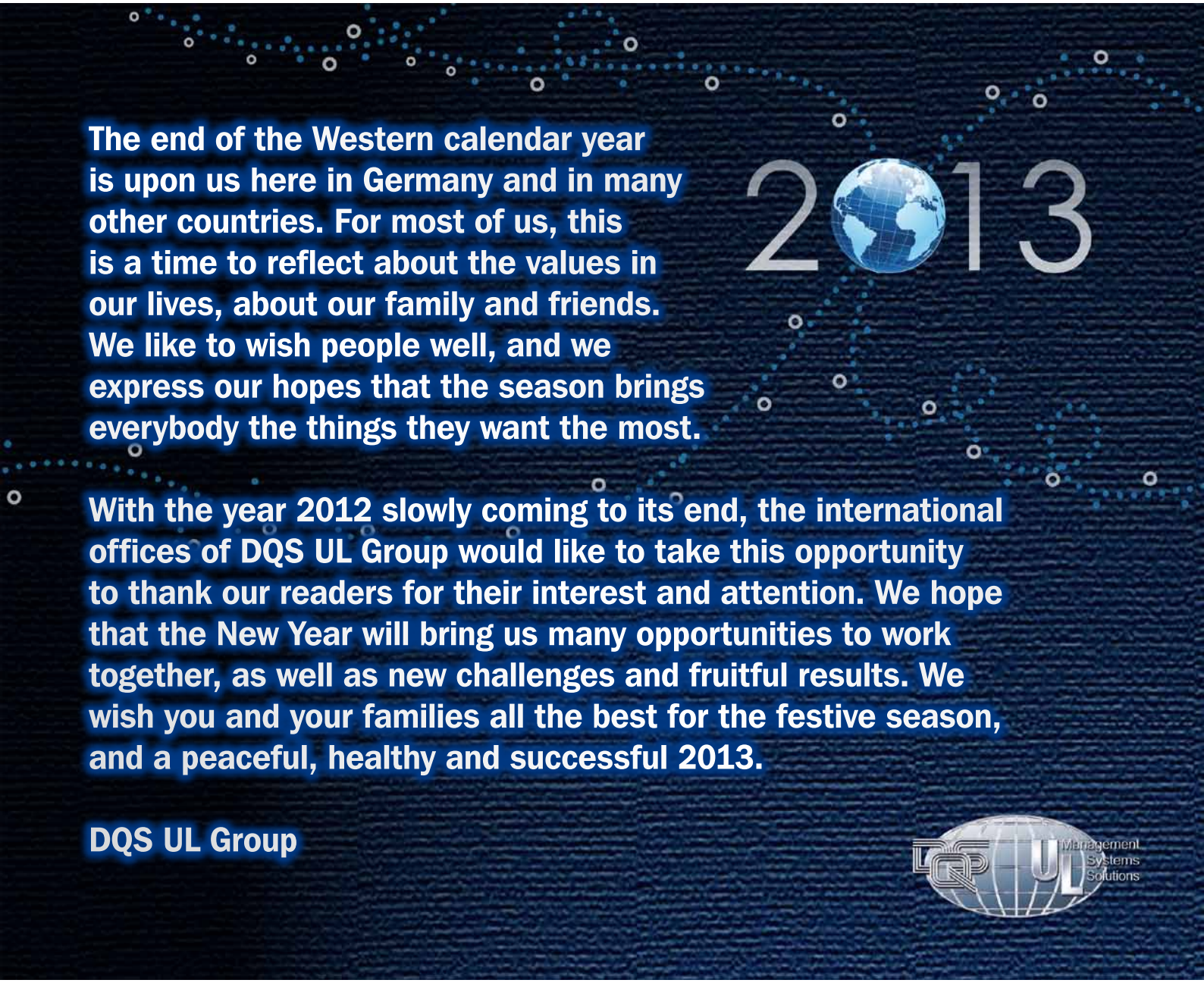


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