

IMPLEMENTATION OF AN INTEGRATED MANAGEMENT SYSTEM (QUALITY, ENVIRONMENT, SAFETY AND HEALTH) IN VIENNA'S MUNICIPAL DEPARTMENT

1. Organisations involved

Vienna's Municipal Department

2. Description of the case

2.1. Introduction

The Municipal Department (MA) 48 is part of the 'environmental section' of the municipal administration of the City of Vienna. 3,600 employees are responsible for waste management, especially waste collection (recyclables, organic waste, residual waste etc.), waste treatment, street cleaning and winter service. MA 48 runs a waste treatment plant Abfallbehandlungsanlage, ABA, with facilities for sorting plastics, treating (mechanically) residual waste and bulky waste, treating residues of the incineration plants, etc. and a reloading point for recyclables), a biogas plant, composting plant) and a waste disposal site. It also provides other facilities such as public toilets, civic amenity sites, and collection points for household hazardous waste.

Besides waste management, there are further fields of activity including promoting waste avoidance, introducing new techniques, e.g. in composting organic waste, snow clearing, de-icing, and towing services. MA 48 is also responsible for the vehicle fleet of the City of Vienna.

Figure 1. Municipal cleansing worker, Vienna



In 1997, MA 48 began to implement a new quality management system (QMS) according to ISO 9001:1994. It took three years to implement the system in the four units of MA 48: waste management, street cleaning, vehicle fleet and administration. The QMS of each unit worked independently and was audited externally.

Ongoing certification and auditing processes offered the possibility of permanent evaluation and improvement of the management system. The department found that expectations in the management system were changing. Quality management in itself ceased to be of central interest and keeping up with new environmental standards and ensuring safety and health at work became more and more important. Hence, it seemed logical to mainstream the new safety, health and environmental management processes into a single integrated management system (IMS).

In order to meet the requirements of the different activities in a single system it was decided to re-organise the existing QMS in two ways. First, the four single-unit QMS had to be merged into one general QMS valid for all units. Second, the QMS had to be amended in such a way that



OSH and environmental management systems could be integrated. First steps of planning were undertaken in 2004 and first pilot implementations tested until the middle of 2005. Another year passed until the new IMS was implemented in the whole of MA 48. It was audited and certified externally for the first time in July 2006.

2.2. Aims

The aim was to implement a management system that could actively support running MA 48. It had to be flexible enough to take into account customer orientation as well as ensure the best performance of MA 48's services. The main criteria for the new management system were:

- to coordinate service offer and clients' demands
- to reduce environmental pollution
- to ensure the highest safety standards for the workers
- to ensure legal compliance.

2.3. What was done, and how?

The first step in autumn 2004 was to set up a concept and milestones for merging the four different QMS units and for integrating the areas of OSH and environment. External consultants provided support by analysing a sample of processes of the quality, environmental and OSH management systems according to the old QMS standards in the different units. The results of these analyses determined the time frame for the implementation (end of June 2006).

The first step in the implementation of the IMS was the introduction of a new quality policy and a restructuring of the entire process landscape into management processes, business processes and supporting processes. The existing QMS was evaluated with regard to the different categories to find loopholes and to define requirements for the new IMS. The new quality policy was intended to provide the background for the new management system and to make the IMS implementation more transparent. A target performance comparison was carried out for all three fields of management processes. Environmental and OSH management were intended to be mainstreamed as early as possible into the new IMS design.

Before implementation of the OSH and environmental management systems, personnel from all units were invited to special three-day training seminars. After the training each of these members of staff became a 'SGU-contact person' (SGU stands for safety, health, environment) in their particular unit. The contact persons are part of the management system and are responsible for the implementation of measures in their unit.

Management representatives were also invited to special seminars informing them about the new tasks and responsibilities.

With regard to OSH management, the former safety and health management system was evaluated. The old documentation consisted basically of (more or less detailed) instruction material. Standardised training documentation was essential for the new OSH management, so new safety and health guidelines ('SGUVorschriften') were developed. The new guidelines aimed to ensure that workers were better prepared to handle dangerous substances and to work with different devices and tools. All workers and management representatives are trained in using the guidelines, and workers can access the guidelines directly via their department's intranet.

A central unit for OSH was established. The unit is the main focal point for all safety and health actions. It is responsible for:

- Carrying out periodic workplace risk assessments. Plans for inspections are prepared by the central OSH unit.
- Central documentation of risk assessment processes in a database, accessible by all SGU contact persons.

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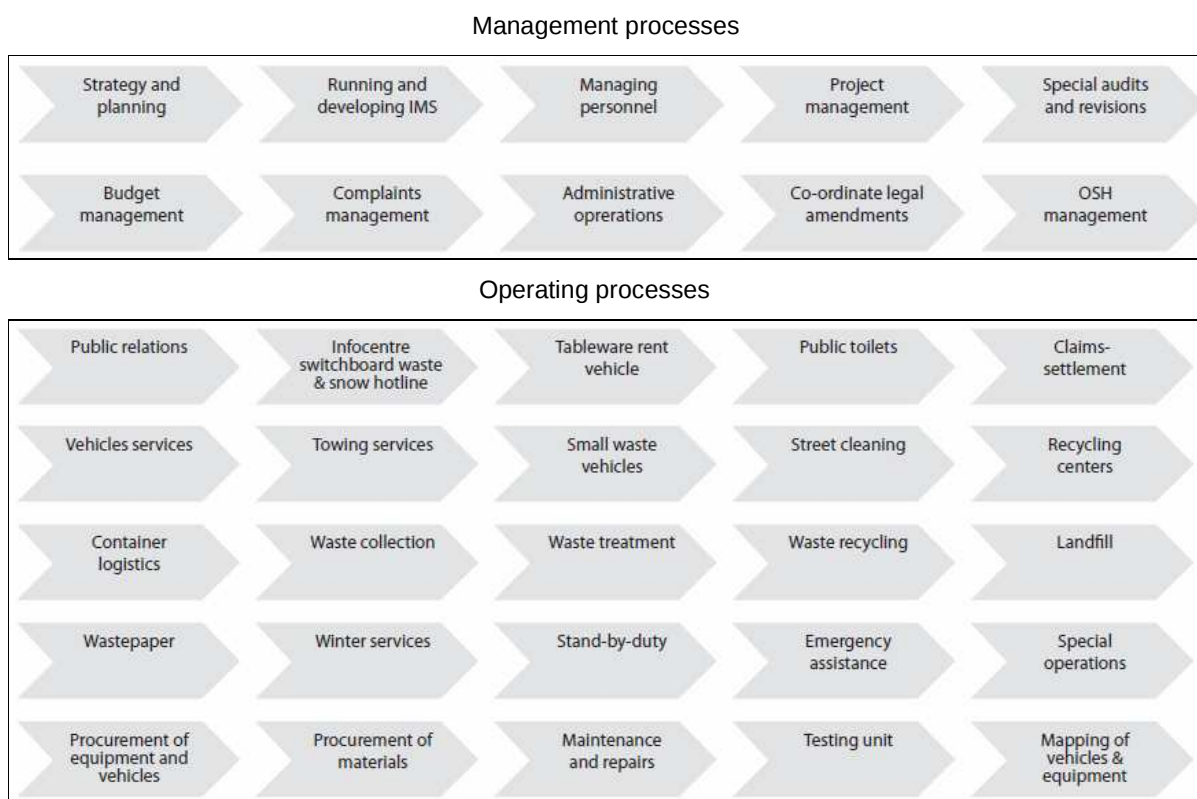
- Frequent coordination with SGU contact persons of the various sub-units in the department. The units of MA 48 carry out the workplace risk assessment in their particular area. Multi-area risk assessments and their evaluation are coordinated by the central OSH unit.
- Proposal of adequate measures and their implementation.
- Involvement of the management. Multi-area risk assessments require the departmental management to participate, because the management has to decide on financial resources and on building measures (if required).
- Examples of measures taken as result of risk assessment. New fire doors, a new fire alarm system and new emergency exit signs were installed, and a new guideline for the handling of asbestos was introduced.

At management review meetings, OSH management is at same priority level as quality and environmental management. Points of special interest are:

- Has the OSH management cycle been completed?
- Were adequate measures taken?
- Are there any measurable results?
- What can be done for further improvement and efficiency?

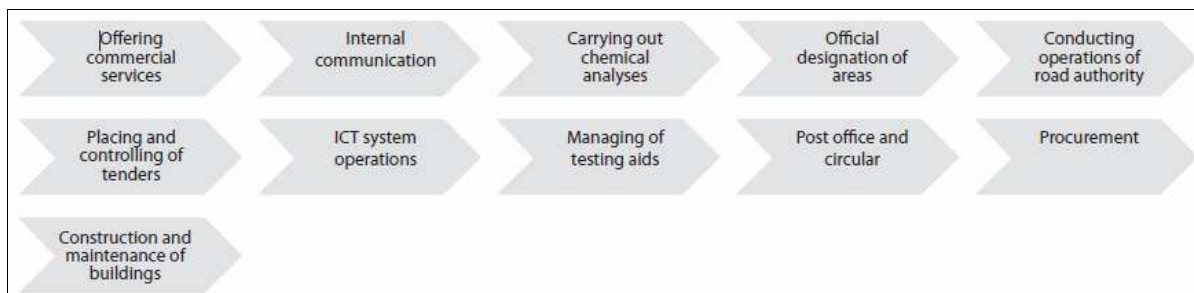
Generally speaking the new IMS achieves a good balance in the management of the three aspects: quality, environment and OSH. All three aspects are part of a single quality policy and are mainstreamed into common documentation. Thus, all findings and data can be evaluated collectively and various processes taken into account when adjustments are made, so that actions are coordinated and duplication avoided.

Figure 2. Process landscape



CASE STUDIES

Operating processes



2.4. What was achieved?

The main objective of the project, to implement a harmonised management system customised for the needs of MA 48, was realised. The system is transparent, applicable for all operational processes and an effective steering tool for the management. The core aspects can be summarised as follows:

- concrete management process flow
- synergies in management because of simplification of workflows
- standardised training tools (e.g. safety and health guidelines)
- clearly defined responsibilities
- customer orientation
- defining of objectives in regard to quality, environment and OSH.

The advantages of IMS in comparison to the former QMS of MA 48 can be summarised as follows:

Table 1. Quality Management System vs. Integrated Management SystemDisa

QMS Disadvantages	IMS Advantages
Successive, incoherent implementation process	Coherent communication and implementation process
Separate treatment in the particular units of MA 48	Applicable in all units of MA 48
No concerted reporting to department management of MA 48	Direct and coordinated reporting to department management of MA 48
Local steering in units, frictional losses, different management strategies	No frictional losses, one central steering instrument
Possible synergies could not be used	Synergies between different management processes
No coordination of unit interfaces	Defined interfaces between the different units of MA 48

The IMS of MA 48 could be certified according to:

- ISO 9001, ISO 14001 and OHSAS 18001 for quality, environmental and OSH management from Det Norske Veritas GmbH (DNV Environmental Expertise and Certification, Germany).
- EMAS certification of Umweltbundesamt (Austrian Environmental Agency) for environmental management.

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- EFB certification for waste management facilities of the Austrian Waste Management Certification Council (Verein für Entsorgungsfachbetriebe, VEFB) of the Austrian marketing boards of the waste management facilities (VOEB, OWAV and ISWA).

The implementation of the new IMS covered some new ground for the department. Although the project can be described as a success, many steps could not be foreseen and had to be improvised. Therefore a thorough and ongoing evaluation is of major importance. The IMS will be continually assessed and adapted to new demands to ensure that it functions properly.

Problems faced

One major problem was to adjust the IMS to the different needs of various departments in MA 48, and to implement it as an integrated and coherent management system for effective steering and for daily workflows. It was difficult to communicate the IMS in its complexity to the staff. A lot of effort was devoted to ensuring that the implementation process was as transparent as possible.

Another constraining factor was the strict timetable of the project. Only two years passed from the first steps in planning until the final inauguration of IMS. The management preferred to keep the implementation process short in order to gain time for evaluation and enhancement of the IMS under real operating conditions.

Under these conditions steering the implementation process was a real challenge for the management core group. To achieve the objectives, to involve the staff and the heads of unit at short notice and to meet everyone's expectations was difficult. The IMS team had to be persuasive and persistent in gaining people's support.

2.5. Success factors

The first key success factor was the interest and the support of the project by the whole management. The head of Municipal Department 48 was directly involved and the implementation process was high on the agenda at management meetings.

The second key success factor was the involvement of the employees. To ensure that the project was as transparent as possible, workers were informed via intranet, in-house newspaper and notice board. A feedback chain was implemented that allowed workers to express criticisms and suggestions concerning the IMS, find out information about the IMS, and communicate with the IMS management. The audit stated that both the top-down information and the bottom-up feedback worked well and that workers were thoroughly informed about the new IMS.

Third, the central management of the IMS with the consultation and involvement of the different units was another crucial point. It was important to find a compromise between coherency and diversity with regard to the different needs of the units. With the help of the SGU contact persons in the units and frequent exchanges between them and the department's management, friction was avoided. Another important aspect was the decision of the Viennese municipal administration to implement the so called PUMA programme for Environmental Management in all municipal administration departments. This gave an added impetus to the implementation of the new IMS, and PUMA was integrated in the IMS.

2.6. Further information

Contact information:

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2.7. Transferability

Management systems can be implemented in any kind of enterprise or public administration. In doing so it should be taken into account that success is closely connected to the individual needs of the particular facility. In other words, the management system has to be adapted to the special needs of the enterprise concerned. Opting for an IMS has several advantages, first and foremost the bundling of all management processes into a single steering unit. In the project phase of implementation it should be taken into account that:

- objectives should be clearly defined;
- time frames and milestones should be determined in advance;
- management must explicitly support the IMS;
- coherent structures must be set up, consisting of a central core group and decentralised communication units; and
- management system and policy should be communicated to staff in every phase of the project.

3. References, resources:

Sources and further information:

Det Norske Veritas (DNV 2007, Ed.): Eine saubere Sache. In: DNV Direkt Nr. 2. Available at: http://www.dnv.de/ressourcen/publikationen/direkt/20_ausgabe_2/eine_saubere_sache.asp

<http://www.wien.gv.at/umwelt/ma48/service/publikationen/pdf/umwelteklaerung-ma48-2009.pdf>

PUMA: Programm Umweltmanagement im Magistrat der Stadt Wien. Available at: <http://www.magwien.gv.at/umwelt/puma/index.html>