

DRAGAN RAJKOVIĆ¹
PETAR STOJILKOVIĆ¹
RAJKO SOFRANAC¹

¹Centar za sertifikaciju sistema
menadžmenta RS Cert u Leskovcu

¹info@rscert.com

OHSAS AND INTEGRATION OF MANAGEMENT SYSTEMS

Abstract: *Integrated Management Systems (IMS) are complex, dynamic systems, whose design and implementation (establishment) follows risk, costs and problems in implementation. IMS needs to integrate all current formalized systems focusing on quality, environmental protection, health and safety, personnel, finance, etc. This means that the processes and documents that describe them need to be integrated. Over the past years, one of the most important standardized systems is the system of occupational health and safety management - OHSAS. Basics of OHSAS are mentioned in this paper. The methods and approaches to system integration are presented here. The benefits of system integration and applying OHSAS are also shown in this paper.*

Key words: OHSAS, IMS, integration.

INTRODUCTION

At the present time, implementation and certification of different management systems such as: Quality (QMS) according to standard ISO 9001, Environment (EMS) according to ISO 14001, Health and Safety (OHSAS) according to ISO 18001, Social Responsibility of Corporations (CSRMS) according to ISO 26000, Food Safety HACCP / ISO 22000 and others, is becoming a priority for long-term sustainable development of any organization (company).

The system which integrates the requirements of multiple standards primarily satisfies the needs of multiple stakeholders, because very often, different parties require different management systems that conform only to the specified standard or standards. In this regard it is necessary to identify the common elements of the management system (MS), standards that are the subject of integration, which will be satisfied with shared documents. From the perspective of specific stakeholders, each one of them requires only a specific management system, according to a specific standard (eg. for the OHSAS, employees and legislators).

Observed interests of various stakeholders, although it seems clear can often be contradictory. In order to satisfy them in a manner that will guarantee everyone's rights, expectations and benefits, it will be necessary to "fit" in IMS, which is the subject of this paper.

MANAGEMENT SYSTEM OF OCCUPATIONAL HEALTH AND SAFETY - OHSAS

The series of standards for evaluation of health and safety at work were created in response to a user request for the standard of management system (managing) of occupational health and safety on basis of which their management system could be assessed and certified. The standards are:

- **OHSAS 18001: 2007 Management Systems Occupational Health and Safety. Requirements (SRPS OHSAS 18001: 2008)**

- **OHSAS 18002: 2007 Management Systems of Occupational Health and Safety. Guidelines for implementation. OHSAS 18001 (SRPS OHSAS 18002: 2009)**

OHSAS 18001 has been developed so that it is compatible with standards for management systems - ISO 9001 (Quality) and ISO 14001 (Environment) in order to facilitate the integration of quality management systems, environment, health and safety of the organizations, if required.

OHSAS 18001 standard is designed in a methodology known as "plan - do - check - act" (PDCA).

Standard OHSAS 18001 is composed of six interdependent wholes (Figure 1).

METHODS AND APPROACHES TO SYSTEMS INTEGRATION

The integration of different management systems is possible because there are: common principles (process approach, PDCA, risk management), specifications and methods for integration, common elements of the standards and methods for harmonizing the goals of stakeholders.

Integrating partial standards / systems can be obtained by:

- **inclusion**, so that basic documentation standards/ systems is performed (**at the appropriate standard**), and then expanded according to the requirements of other standards / systems and

- **adding**, by any standard / system which has its own documentation connected to each other.

There are basically three approaches of establishing integrated management systems [2]:

- Sequential approach of establishing integrated management systems,

- Parallel approach of establishing integrated management systems and

- Combined approach of establishing integrated management systems.

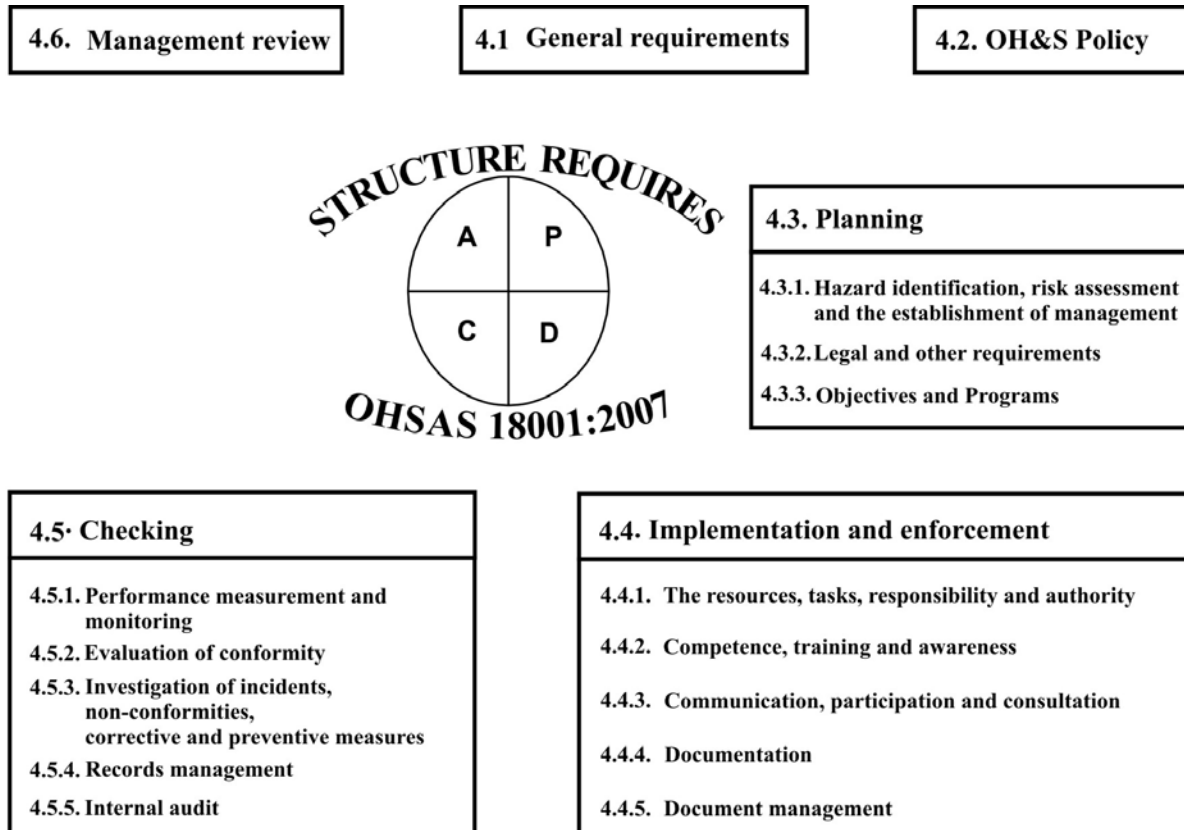


Figure 1. Structural requirements of **OHSAS** standard [1]

Regardless of the IMS approach applied, an integrated documentation system is obtained in the end. In this regard, there is a procedure instead of the current three approaches. System procedures are integrated for all three systems, wherever possible, and the same goes for instructions and records. Therefore, procedures, instructions and records can be shared documents, and the document specific individual system (S). In addition, the specific documents must be "connected" to form a whole.

SPECIFICATION PAS 99:2006

Unfortunately, there is currently no standard which could provide the requirements for integrated management system, and it will be more difficult in the near future. They were developed to standardize certain documents (specifications, guidelines, guides). **PAS 99 PAS 99: 2006** "Specification of common management system requirements as a framework for integration" can be successfully applied to meet the growing interest

in integrated systems approach management and management of organizational risk. The British Standards Institute (**BSI**) has prepared Specification available to the public (Publicly Available Specifications), **PAS 99: 2006**.

This is a methodological guide for integrating two or multiple management systems, whether they already exist independently or an organization has certified one wanting its business to comply with the requirements of other management systems.

Specification insists on two elements:

- *systematic approach in defining all the processes and documents of management system,*
- *the treatment of risk.*

PAS 99 is primarily intended for those organizations that implement the requirements of two or multiple management systems standards (Figure 2).

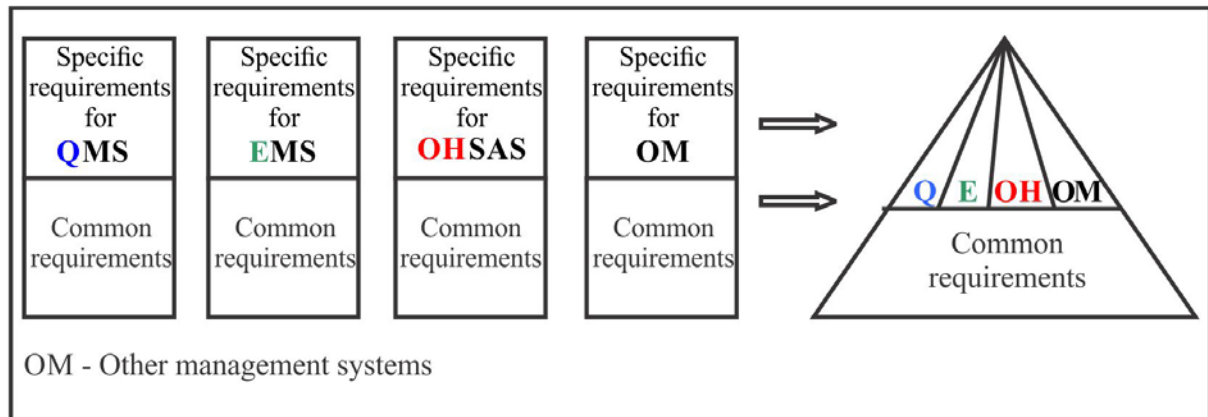


Figure 2. Integration requires different management systems according to *PAS 99: 2006* [3]

Every standard management system has its own specific requirements, but there are six elements that are present in all of them and may be adopted as the basis for integration. The main requirements are categorized in the following cases: a) Policy; b) Planning; c) Implementation and operation; d) The assessment of performance; e) improvement; f) Management review.

BENEFITS OF INTEGRATION SYSTEM OF MANAGEMENT (IMS)

The evaluation of various categories is part of the results of assessment of IMS in small and medium-sized enterprises [4].

Internal Benefits

Table 1 shows the results obtained in terms of elements of the questionnaire used internally by IMS.

Table 1. Internal benefits of applying IMS

O.Nr.	Internal benefits of applying IMS	Num.	% of responses	O.Nr.	Internal benefits of applying IMS	Num.	% of responses
1.	Increase operational efficiency	36	11,65	7.	Satisfaction with owners	12	3,88
2.	Avoiding duplication of procedures system-reducing documentation	32	10,35	8.	Improved communication among employees	21	6,80
3.	Reducing the cost of certification and verification	14	4,53	9.	A higher level of quality of products / services	41	13,27
4.	Increase employee motivation	18	5,82	10.	Reducing the number of non-conformities (rejects)	31	10,03
5.	Raising the level of competence of employees	29	9,39	11.	Decrease in equipment damage	10	3,24
6.	Better defining-determination of employees' responsibilities	36	11,65	12.	REDUCED NUMBER OF EMPLOYEES' INJURIES	13	4,21
				13.	Reduction of Hazardous Waste	16	5,18
					TOTAL:	309	100

In principle, the internal benefits can be categorized into operational, financial and benefits for employees. Taking into account the groups of benefits, the ranking is as follows: Operational benefits, benefits to employees, financial benefits.

External benefits

Table 2 shows the results obtained in terms of elements of the questionnaire on the external benefits from *IMS*.

Table 2. External benefits of implementation IMS

O.Nr.	External benefits of applying IMS	Num.	% of responses
1.	Competitive Advantage	37	11,14
2.	Improving image	40	12,05
3.	Increasing the number of customers	25	7,53
4.	Increase sales	20	6,02
5.	Fulfilling the demands of customers and increase trust	41	12,35
6.	Reduced number of complaints	28	8,44
7.	Improved relations with suppliers	22	6,63
8.	COMPLIANCE WITH THE LAW	29	8,73
9.	IMPROVED RELATIONS WITH THE COMMUNITY AND THE PUBLIC	13	3,92
10.	REDUCING THE NUMBER OF PENALTIES	8	2,41
11.	REDUCING THE FREQUENCY AND SEVERITY OF INCIDENTS	9	2,71
12.	REDUCING THE RISK	24	7,23
13.	BETTER MANAGEMENT OF THE ENVIRONMENT	24	7,23
14.	Increase in export	12	3,61
	TOTAL:	332	100,00

CONCLUSION

Sooner or later, all our organizations will meet with the inevitability of their business systems to adapt to the demands of those who place their needs and interests above the success of the organization. Good management should recognize that all the time. It is no longer sufficient to partially reflect on how to satisfy the users, the state, the employees, the owners and the suppliers. We must think about how to satisfy all of

them simultaneously by implementing the planned activities within an organization.

The integration of certain parts within the management system, which an organization (company) has recognized as necessary in the integrated management system, is becoming a real need of organizations since it provides balanced stakeholder satisfaction.

Applying IMS, an organization manages internal and external benefits. From the point of OHSAS, the number of injuries is reduced and regulatory benefits are increased.

LITERATURE

- [1] Standard SRPS OHSAS 18001:2008 – Management system of Occupational health and Safety at work - Requirements, ISS, 2008.
- [2] Stojiljković V., Stojiljković P., Stojiljković B., Integrated systems of management, CIM College d.o.o., Faculty of Mechanical Engineering, Niš, 2006.
- [3] PAS 99:2006 – Publicly Available Specification, Specification of common management system requirements as framework for integration, BSI, London, 2006.
- [4] Rajković D., Doctoral dissertation: Integrated management systems in small and medium-sized enterprises, Faculty of Mechanical Engineering Kragujevac, 2010.

BIOGRAPHY

Rajković Dragan was born in Leskovac. He graduated from the Faculty of Mechanical Engineering Kragujevac in 1994. He obtained MSc in Mechanical Engineering in Kragujevac in 1998, in the area of Quality management. His thesis entitled "Integrated management systems in small and medium-sized Enterprises" was defended on 03 June 2011 at Faculty of Mechanical Engineering in Kragujevac (now the Department of Engineering Science). He is currently employed in the Group Kragujevac Zastava Vehicles (on-site: Deputy Director for Quality Branch), and engaged in RSCert as a Lead auditor.



OHSAS I INTEGRACIJA SISTEMA MENADŽMENTA

Dragan Rajković, Petar Stojilković, Rajko Sofranac

Rezime: *Integrirani sistemi menadžmenta (IMS) su kompleksni, dinamički sistemi, čije projektovanje i uspostavljenje prati rizik, troškovi i problemi u implementaciji. IMS treba da integriše sve tekuće formalizovane sisteme fokusirane na kvalitet, zaštitu životne sredine, zdravlje i bezbednost, osoblje, finansije, itd. To znači da procesi i dokumenta, koja ih opisuju, treba da budu integrirani. Poslednjih godina, kao jedan od značajnih standardizovanih sistema je i sistem menadžmenta zaštitom zdravlja i bezbednošću na radu OHSAS. Osnove OHSAS-a navode se u radu. Prikazuju se metodi i pristupi integracije sistema. Na kraju prikazuju se koristi od integriranja sistema, gde se vide i koristi primene OHSAS.*

Ključne reči: OHSAS, IMS, integracija.