

## *Monitoring of the corporate communication and information performance*

### **EU-OSHA Website Benchmarking 2009**

Final Report

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## **1 INTRODUCTION**

The European Agency for Safety and Health at Work, set up in 1996, contributes to help meet the information needs in the field of occupational safety and health. As the Agency explains, its aim is to make Europe's workplaces safer, healthier and more productive, acting as a catalyst for developing, collecting, analysing and disseminating information that improves the state of occupational safety and health in the European Union.

For this purpose, the Agency has developed a communication and promotion strategy oriented to its key audiences (policy and decision makers; OSH policy 'shapers' including social partners; policy influencers; OSH professional community; Education, academic, service providers; end-users – workplaces; information providers and intermediaries). This strategy benefits from the existence of the Agency's information network, in which national focal points (FOP) play an important role, and its objective is to establish the Agency as Europe's first reference point, as well as its website as the principal portal for 'quality-assured' information on safety and health at work.

In this sense, giving the important role that the Agency's web site represents within this communication and promotion strategy (providing information about the Agency, its activities, network partners, etc), the monitoring of the Agency's web site performance is perceived as a very important aspect to consider. Thus, a benchmarking exercise has been carried out aiming at enhancing the knowledge of the Agency's current and potential information users, their needs and expectations regarding the Agency information and communication strategies and activities.

## **2 OBJECTIVES**

The objective of this service is to establish a benchmark of Agency's main website against other websites of National, EU, and International organisations, public and private, specialised in providing social information to SMEs, as was done in 2007 and compare the results obtained.

Furthermore, apart from the "pure" exercise of benchmarking, in which several webs have been analyzed according to various characteristics and a ranking of them has been established; two analysis of the EU-OSHA website has been made with the aim of knowing the level of acceptance of web development professionals and daily users of the EU-OSHA web and sporadic users.

The benchmarking exercise expects to enable the assessment of some key aspects of the Agency's website, such as:

- Usability – Is the site easy to use by SMEs?
- Accessibility - Can everyone access the site?
- Communication – Can users find what they need?
- Integration – Does the site support, and work in harmony with the Agencies' off-site and off-line communications?
- Referencing – Does the Agency put search engine optimisation into practice?
- Agency's offer of OSH products and services – Are they relevant to the Agency's main target audiences?

## 3 WORK PERFORMED

### 3.1 WEB SITE PANEL DEFINITION

#### 3.1.1 INTRODUCTION

The selection of the websites was done following the same schema than in 2007: the web site panel definition has been divided into four categories considered as being the most appropriate for this benchmarking study, and which are considered to give the most interesting and relevant data for comparison with the Agency website. The appropriate benchmark indicators are:

- Website that have similar content to the Agency website
- Websites that have a similar level of complexity to the Agency website (e.g. that present large volumes of data)
- Websites that are focussed on diffusing information within the Member States of the EU/EEA
- Web sites that use the similar technology

#### 3.1.2 LIST OF SELECTED WEB SITES

The following websites, with the support of the Agency, were selected for the benchmarking. Most of them were the same selected last year.

1. CDC: Center for Disease Control and Prevention  
<http://www.cdc.gov/>
2. CEDEFOP: European Center for Development of Vocational Training  
<http://www.cedefop.europa.eu/default.asp>
3. DG EMPL: DG Employment  
<http://ec.europa.eu/social/home.jsp?langId=en>
4. DG ENT: DG Enterprise  
[http://ec.europa.eu/enterprise/index\\_es.htm](http://ec.europa.eu/enterprise/index_es.htm)
5. EEA: European Environmental Agency  
<http://www.eea.europa.eu/>
6. EPA: United States Environmental Protection Agency  
<http://www.epa.gov/>
7. HSE: Health and Safety Executive  
<http://www.hse.gov.uk/>
8. ILO: International Labour Organization  
<http://www.ilo.org/global/lang-en/index.htm>
9. NetRegs: Environment Agency  
<http://www.netregs.gov.uk/netregs/default.aspx>
10. WHO: World Health Organization  
<http://www.who.int/>

## 3.2 BENCHMARKING METHOD

### 3.2.1 INTRODUCTION

This section presents the method defined to carry out the benchmarking of Agency's main website against other websites of National, EU, and International organisations, public and private, specialised in providing social information to SMEs; and to provide the "experience" of different potential users and experts in developing websites.

### 3.2.2 METHODOLOGY

The objective of the benchmarking method is to define an exercise that takes into account different points of view provided by:

- o Quality assurance experts, with high expertise in checking and assuring the quality of web applications
- o Website developers
- o Sporadic users, subscribed to different services

These three complementary exercises will provide us with a very good overview of all the aspects of the benchmarking exercise.

#### 3.2.2.1 SYSTEMATIC ASSESSMENT BY EVALWEB

The **systematic assessment** by EVALWEB a tool especially created for these exercises. This tool permits the validation of web applications, assessing their quality in a systematic way and considering the characteristics of the web and its development process. This tool is based on a set of predefined (but customisable) requirements, existing models and web quality standards.

The following high level criteria of the websites will be analysed: Usability, Accessibility, Communication, Integration, & Referencing (keywords).

In this exercise, eleven websites (including the EU-OSHA website) will be analyzed with the aim of comparing the results obtained for each website and to establish a ranking between them.

Additionally, and after the revision of the systematic assessment, three new features have been included:

1. Assessment of search engine optimization
  - Keyword analysis
  - Popularity rank
2. Web 2.0 tools presence and usage

#### 3.2.2.2 ANALYSIS BY EXPERT DEVELOPERS

Three members of the team, with a high expertise in developing websites, will analyze the EU-OSHA website in terms of accessibility, usability, design & architecture, security, performance and functionality. Three independent reports will be carried out and a final report, realized by consensus, will gather the results of the analysis and the recommendations.

### 3.2.2.3 EXPERIENCE OF OSH SUBSCRIBERS

The last exercise consists in collecting the experience from the **OSH subscribers**, as sporadic users that access to the EU-OSHA website in specific moments or for punctual services. The **OSHA On-line Questionnaire**, carried out in parallel in the other **Specific Service contract** with CARSA, has been used as an input to the current study, as many of the questions that are used during that survey, are also applicable during the website benchmarking process.

## 3.3 ANALYSIS OF RESULTS

### 3.3.1 EVALWEB ANALYSIS<sup>1</sup>

#### 3.3.1.1 INTRODUCTION

The systematic assessment by Evalweb has permitted the validation of the 11 web applications, assessing their quality in a systematic way and considering the characteristics of the web and their development process. This analysis consists on checking the fulfilment of a range of requirements, classified on the following 10 web standards.

#### 3.3.1.2 REQUIREMENTS AND ITS APPLICABILITY

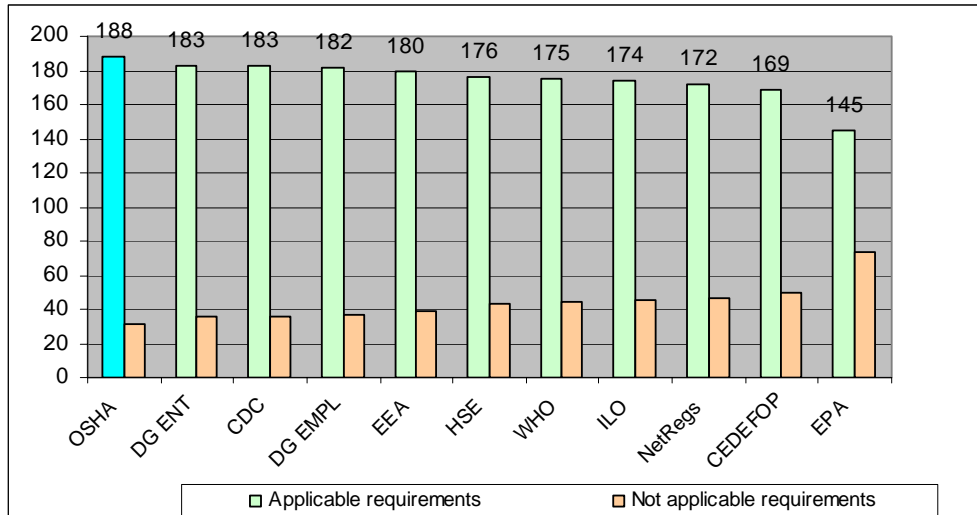
The Evalweb method consists of 219 requirements (see annex 5.3.1) classified by:

- Usability
- Accessibility
- Security
- Functionality
- Architecture and Design
- HTML standards
- Other requirements
- Capacity
- Availability
- Web credibility

The above mentioned requirements are or not analyzed depending on the functionalities of the web site. In this sense, the first activity has been to study each web site and decide which requirements were applicable and not. The following figure shows the applicable requirements for each website.

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<sup>1</sup> The complete analysis of OSHA website is shown in the Annex 5.2.3



From this first analysis, the results shown that the EU-OSHA web site is the web in which more requirements are applicable, which also means that is the web site with more functionality implemented.

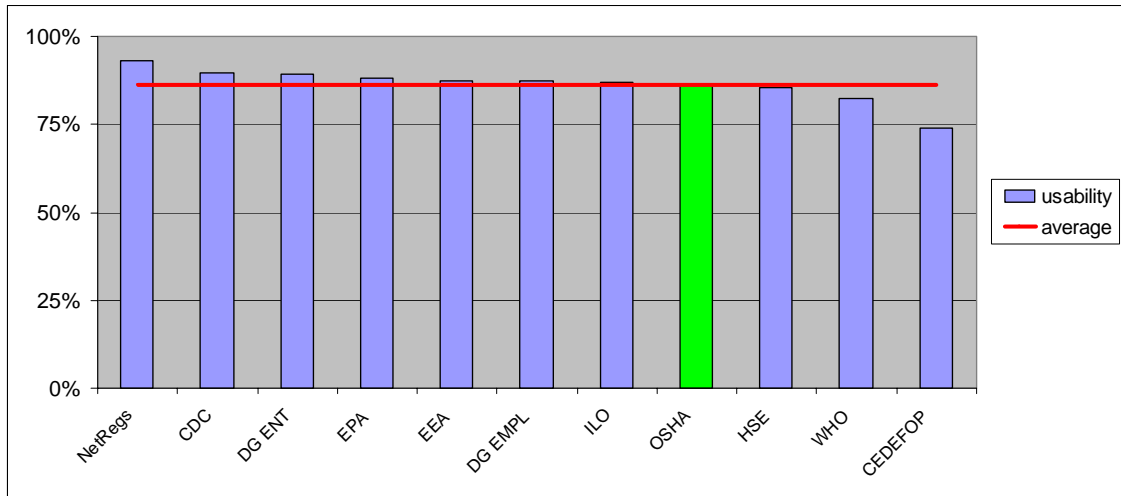
### 3.3.1.3 RESULTS OBTAINED ACCORDING TO WEB STANDARDS

For a better understanding of the characteristics analyzed, the next sentences summarize the meaning of each “web standard”:

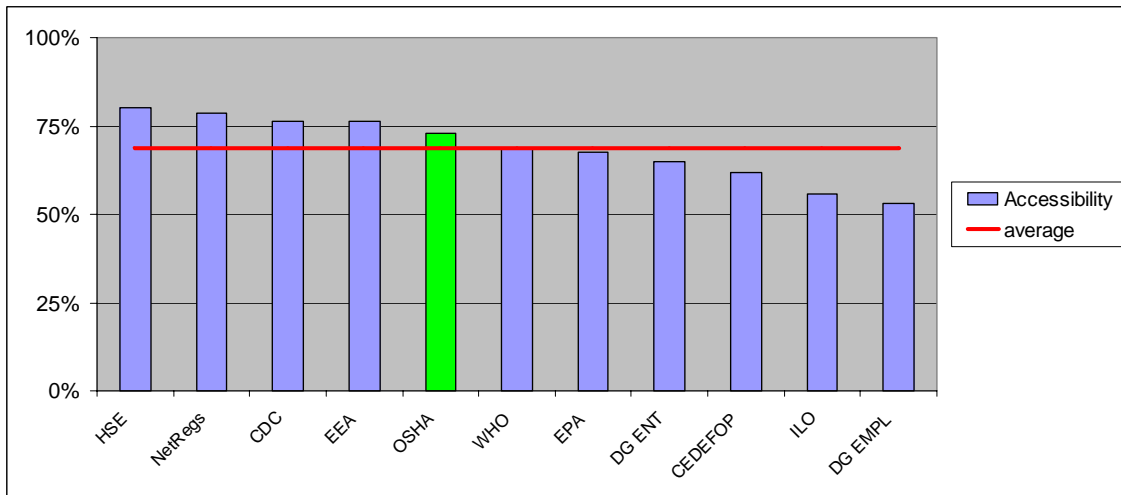
- **Usability:** easiness in the understanding, management and control of the site
- **Accessibility:** characteristics of the site for the general access and for the access of disabled people
- **Security:** capacity of data protection, user access and against hacking
- **Functionality:** to provide an appropriate set of functions for specified tasks and objectives
- **Architecture and Design:** to have a flexible, efficient and easy way to maintain architecture and design
- **HTML standards:** to fulfil the HTML standard
- **Capacity:** speed of the site
- **Availability:** availability of the site
- **Web credibility:** web contains information about the organisation
- **Other requirements:** others

The following figures shown the results obtained for each website according to each web standard:

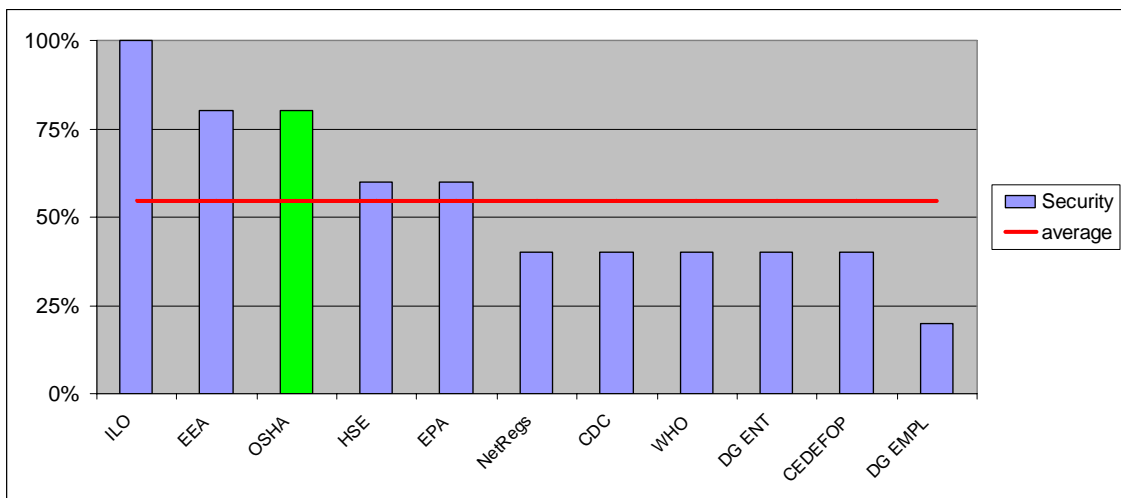
- Usability



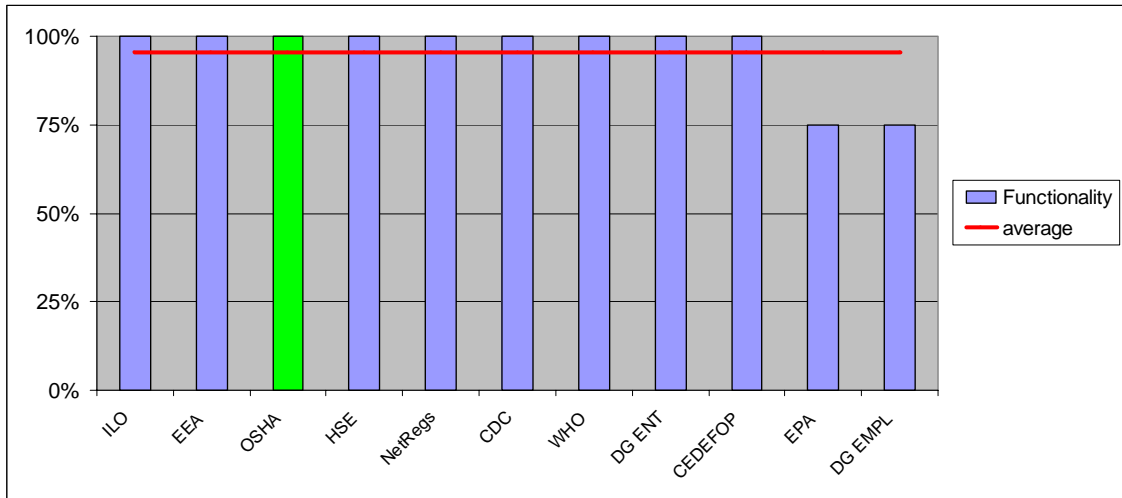
- Accessibility



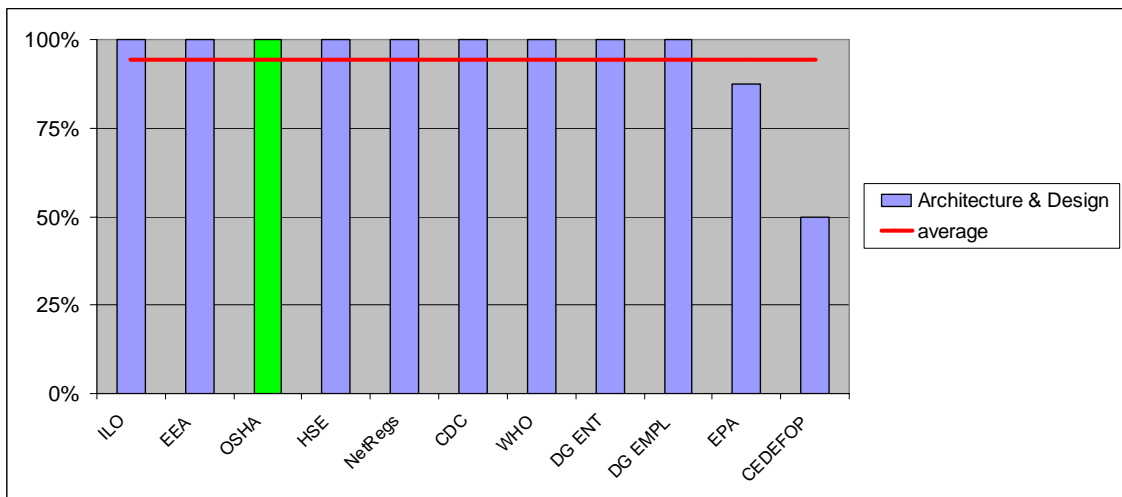
- Security



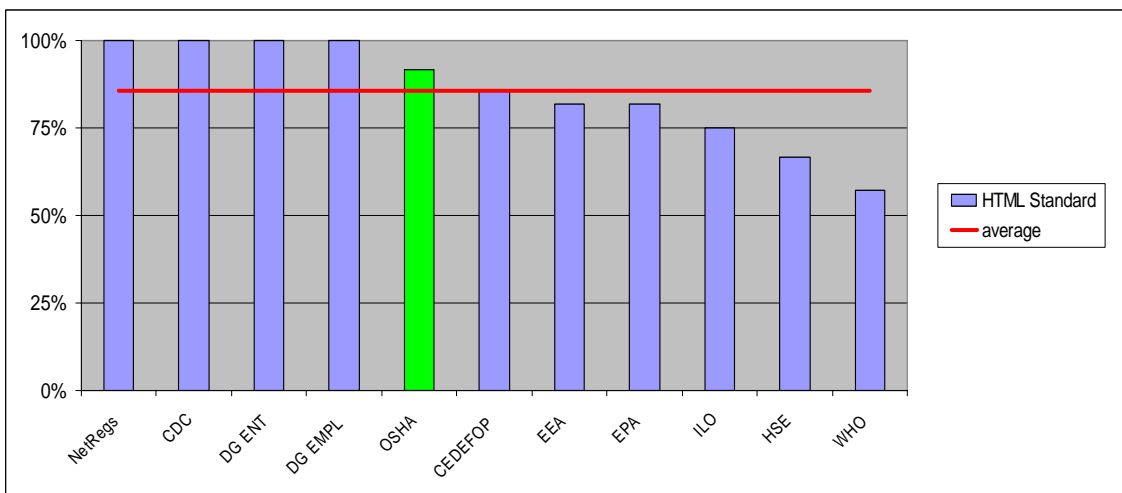
- **Functionality**



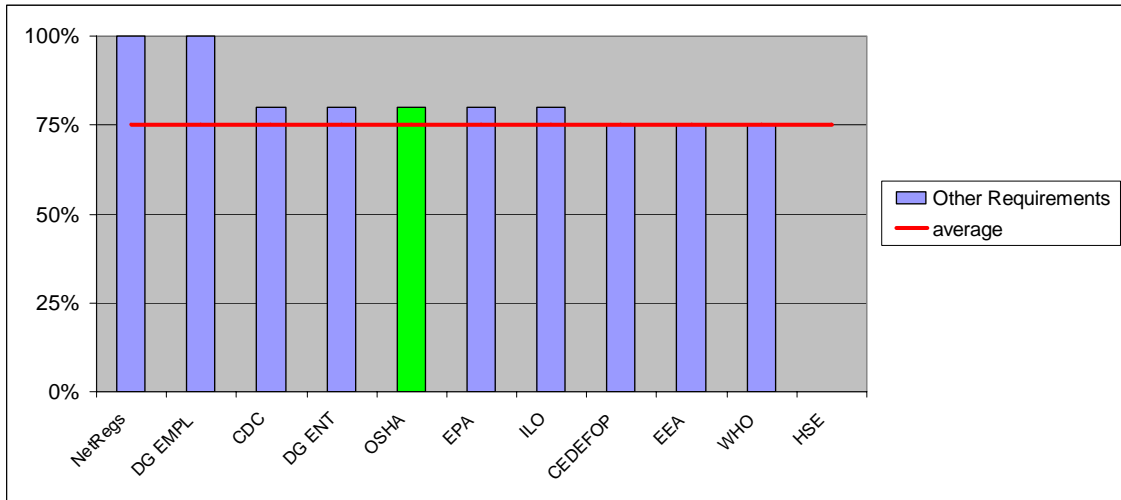
- **Architecture and Design**



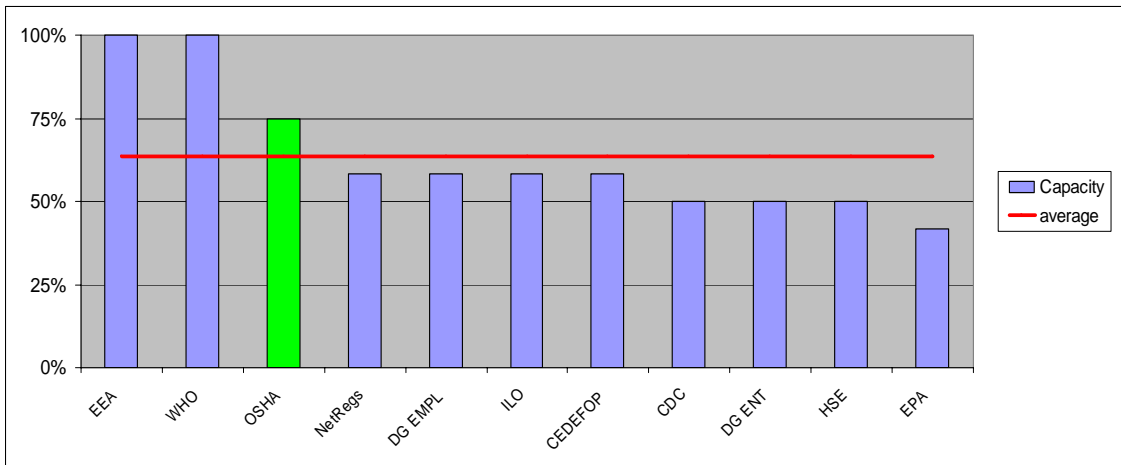
- **HTML standards**



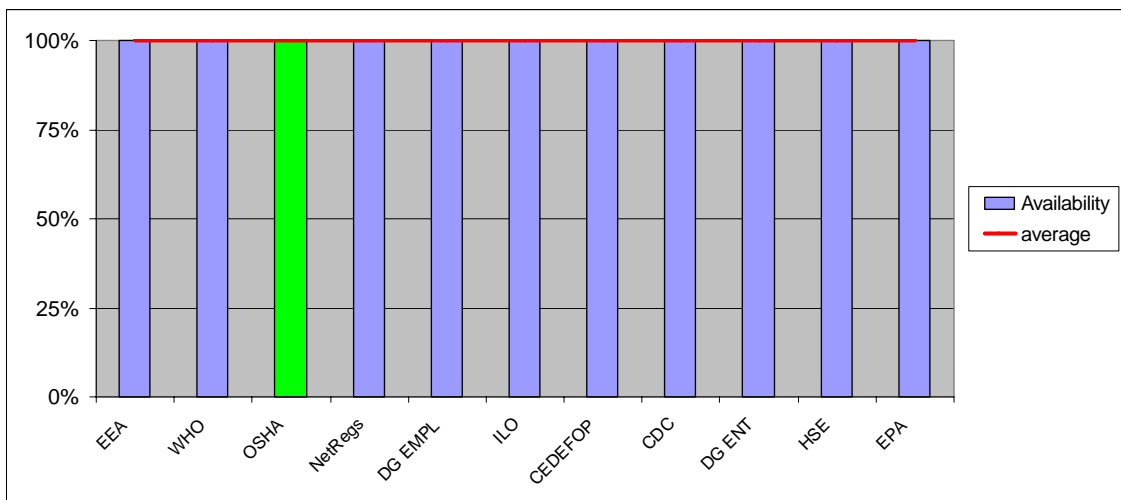
- Other requirements



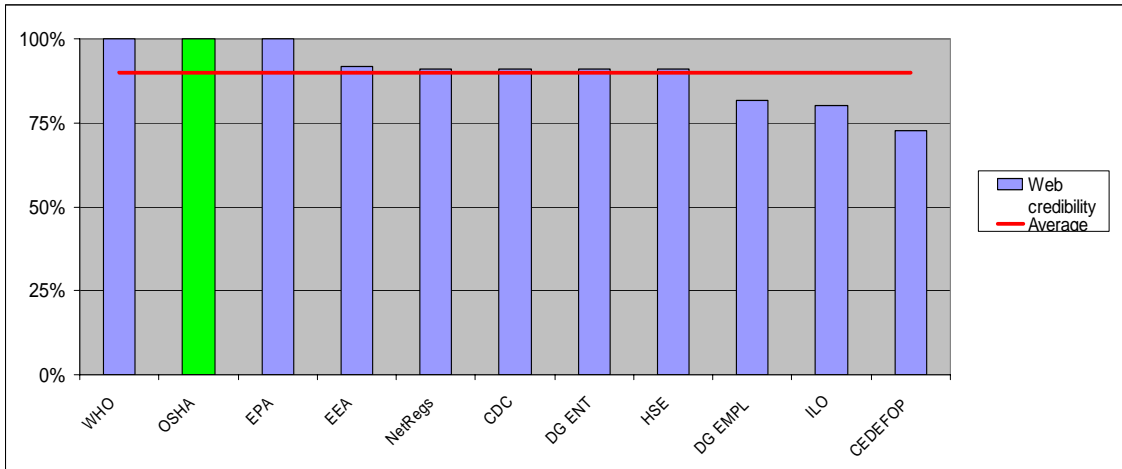
- Capacity



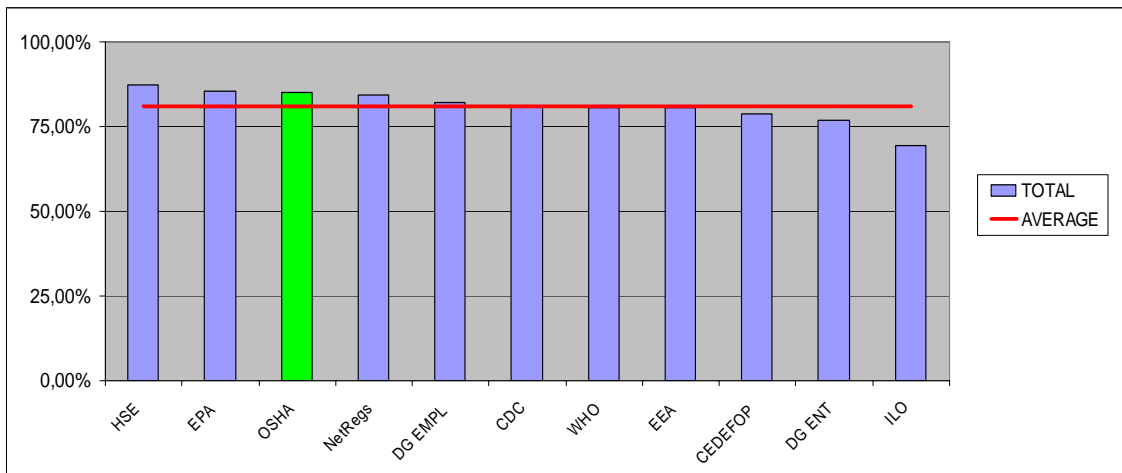
- Availability



- Web credibility**



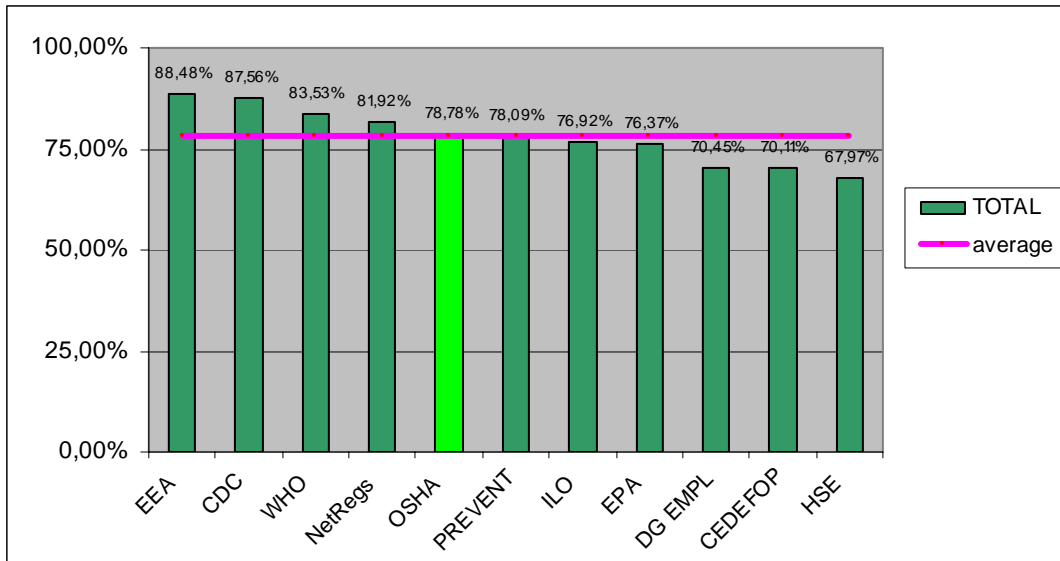
- Total**



- Total with “weighted” aspects**

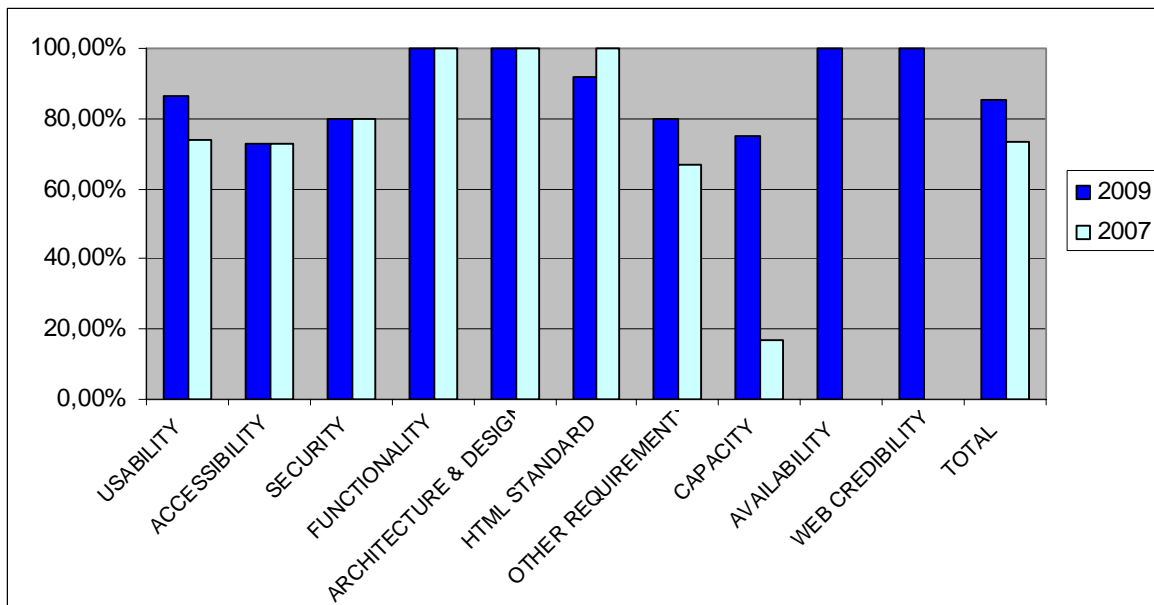
Taking into account the different level of significance of each aspect and ranking them according to the next table, the figure below shows the results:

Usability	2
Accessibility	2
Security	3
Functionality	2
Architecture & Design	2
HTML Standard	1
Other Requirements	1
Capacity	3
Availability	3
Web credibility	2



**3.3.1.4 COMPARISON BETWEEN 2007 VS 2009**

After refining the analysis carried out both years, for allowing us to compare results, the following table shows how the EU-OSHA website has been improved since last time, obtaining better results or at least the same for all the “web standards” except for HTML standards.



### 3.3.1.5 ASSESSMENT OF SEARCH ENGINE OPTIMIZATION

#### 3.3.1.5.1 KEYWORD ANALYSIS

##### A. Keyword: “OSHA”

The next table shows the position that the EU-OSHA website gets when key OSHA in the 21 google.xx

Country	Search in	Position
Bulgaria	Google.bg	2
Czech Republic	Google.cz	2
Denmark	Google.dk	2
Estonia	Google.com/intl/et	3
Finland	Google.fi	3
France	Google.fr	2
Germany	Google.de	3
Greece	Google.gr	3
Hungary	Google hu	3
Italy	Google.it	3
Latvia	Google.lv	3
Lithuania	Google.lt	2
Polish	Google.pl	1
Portugal	Google.pt	3
Romania	Google.ro	3
Slovakia	Google.com/intl/sk	2
Slovenia	Google.com/intl/sl	3
Spain	Google.es	3
Sweden	Google.se	3
The Netherlands	Google.nl	3
United Kingdom	Google.co.uk	3
International	Google.com	3

##### B. Keywords selected as important for the Agency

14 keywords were selected<sup>2</sup> by the Agency for being translated to the 21 languages with the objective of knowing the position of the EU-OSHA website when searching these keywords in google.xx.

The following table shows the keywords in English:

1	skin disease
2	muscle pain
3	working conditions
4	safety at work
5	Emergency

<sup>2</sup> The keywords were selected in function of the topics treated by the Agency in their last Communications campaigns.

6	Burnout
7	migrant workers
8	diesel exhaust
9	stress Management
10	hazardous substances
11	dangerous substances
12	safety tips
13	stress at work
14	occupational stress

Next, the tables show if the EU-OSHA website appears as one of the first 50 results (and what position, if any) when we key each keyword in the 21 languages using google.xx.

Language	Bulgarian	Czech	Danish	Eslovenian	Estonian	Finnish	French	German	Greek	Hungarian	Italian
Search in	Google Bulgarian	Google Czech Rep	Google Denmark	Google Eslovenia	Google Estonia	Google Finland	Google France	Google Germany	Google Greece	Google Hungary	Google Italy
skin disease											
muscle pain				31							
working conditions	23			44				44	47		
safety at work	19	4			21	8					
emergency											
burnout						15					
migrant workers							35				
diesel exhaust				4							
stress management						1					
hazardous substances		6			7	22	5		29		
dangerous substances	1	6	30	4	7	22	5		7	5	2
safety tips				4							
stress at work	17	3	2	16		17				19	14
occupational stress	21	3	45	10	3	17					

Language	Latvian	Lithuanian	Netherlands	Polish	Portuguese	Romanian	Slovakian	Spanish	Swedish	English
Search in	Google Latvia	Google Lithuania	Google Netherlands	Google Poland	Google Portugal	Google Romania	Google Slovakia	Google Spain	Google Sweden	Google UK
skin disease							28			
muscle pain	33									
working conditions	3				16					
safety at work			13				11	6	35	17
Emergency										
Burnout										
migrant workers		1			6		4			44
diesel exhaust										46
stress Management		39								
hazardous substances	9			3			3	20		
dangerous substances	1		18	3	6	4	3	20	4	29
safety tips				10						
stress at work	12	1	23	10		25	1	44		
occupational stress		16		27		0	1		21	

The next tables show if the EU-OSHA website appears as one of the first 50 results (and what position, if any) when we key each keyword in the 21 languages using google.com

Language	Bulgarian	Czech	Danish	English	Eslovenian	Estonian	Finish	French	German	Greek	Hungarian
skin disease											
muscle pain											
working conditions										42	
safety at work	37	15		10		4	3		12		27
emergency											
burnout							10				
migrant workers				33							
diesel exhaust					4						
stress management							1				
hazardous substances		16				5	34	5		28	
dangerous substances	2	16	46	10	5	5	34	5		3	8
safety tips	33				5					44	
stress at work	14	3	7	46	17		17				21
occupational stress	19	2			2	5	17				44

Language	Italian	Latvian	Lithuanian	Netherlands	Polish	Portuguese	Romanian	Slovakia	Spanish	Swedish
skin disease										
muscle pain										
working conditions										
safety at work				23	10			12		41
emergency										
burnout										
migrant workers			1			4		3		
diesel exhaust										
stress management			48							
hazardous substances					3			9	9	
dangerous substances	4	1		23	3	28	5	9	9	4
safety tips		23			8					
stress at work	10	9	3	33	44		5	3		
occupational stress			10		23			1		31

For summarizing the results obtained, the next table shows the number of languages (out of 21) in which the EU-OSHA Web Site position is amongst the first 50 results of the searches performed using google.xx

Keywords	Results	Summary of the position
dangerous substances	19/21	Appears as one of the five first results in Bulgarian, Latvian, Italian, Slovakian, Romanian, Slovenian, Swedish, Polish, French and Hungarian
stress at work	14/21	Appears as one of the five first results in Lithuanian, Slovakian, Danish and Czech
occupational stress	10/21	Appears as one of the five first results in Slovakian, Estonian and Czech
safety at work	9/21	Appears as one of the ten first results in Czech, Finnish and Spanish
hazardous substances	9/21	Appears as one of the ten first results in Slovakian, French, Czech, Estonian, Polish and Latvian
working conditions	6/21	Appears in Latvian (3rd), Portuguese, Bulgarian, Eslovenian, German and Greek
migrant workers	5/21	Appears in Lithuanian (1st), Slovakian (4th), Portuguese (6th), French and English
stress management	2/21	Only appears in Finnish (1st result) and in Lithuanian
diesel exhaust	2/21	Only appears in Eslovenian (4th result) and in English
muscle pain	2/21	Only appears in Eslovenian and Latvian
safety tips	2/21	Only appears in Eslovenian and Polish
Burnout	1/21	Only appears in Finnish
skin disease	1/21	Only appears in Slovakian
Emergency	0/21	Doesn't appear

**3.3.1.5.2 POPULARITY RANK**

**PageRank** is a link analysis algorithm that assigns a numerical weighting (0-10) to each website with the purpose of "measuring" its importance within the World Wide Web

The following table shows the Page Rank for the 11 web analyzed:

<b>web</b>	<b>Page Rank</b>
CDC	9
EPA	9
WHO	9
ILO	9
EEA	8
Cedefop	8
DG ENT	8
<b>OSHA</b>	<b>7</b>
HSE	7
DG EMPL	6
NetRegs	6

### 3.3.1.6 WEB 2.0 TOOLS PRESENCE AND USAGE

**Web 2.0**, as a concept, entered Internet culture with the new millennium, and was meant to be an expansion of the then-static web into everyday appliances like cell phones and car radios, with other uses and services, like e-Administration and real-time communications. However, with time, the phrase has lost the ubiquitous part of the meaning, and has focused in aspects related to how users interact with web pages and among themselves.

It is difficult, even today, to describe what makes a web page *2.0-compliant*. That is because one single feature cannot turn a site from 1998 into a modern site. Web 2.0 sites become less a source of information in which the webmaster updates a set of pages, and embrace the "web as a platform" culture, giving their users spaces to be themselves and interact—a visitor can have a place for themselves in a website created by other person, thus placing the first stone for the defining characteristic of Web 2.0: communities.

5 Aspects has been analyzed for positioning the websites in relation with the use of Web 2.0 tools and methodologies:

#### 1 New technologies<sup>3</sup>:

	OSHA	CDC	CEDEFOP	DG_EMPL	DG_ENT	EEA	EPA	HSE	ILO	NetRegs	WHO
CSS 3	Y	Y	N	Y	N	N	N	N	N	N	N
HTML 5	N	N	N	N	N	N	N	N	N	N	N
Microformats	N	N	N	N	N	N	N	N	N	N	N
Javascript Libraries	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y

#### 2 Multimedia Use:

	OSHA	CDC	CEDEFOP	DG_EMPL	DG_ENT	EEA	EPA	HSE	ILO	NetRegs	WHO
Interactive maps	N	N	N	N	N	N	N	N	N	N	N
Charts	N	N	N	N	N	N	N	N	N	N	Y
Hi-resolution images	N	Y	N	N	N	N	Y	N	N	N	N
Slideshows	N	Y	N	Y	N	N	Y	Y	Y	N	N
Embedded video	Y	Y	N	Y	N	Y	Y	Y	Y	N	N

<sup>3</sup> A complete description of each requirement is included in the section 5.2.2

### 3 Interface features

	OSHA	CDC	CEDEFOP	DG_EMPL	DG_ENT	EEA	EPA	HSE	ILO	NetRegs	WHO
Dynamic interface	N	Y	Y	Y	Y	N	Y	N	N	N	N
Modern style	N	N	N	Y	Y	N	Y	Y	N	N	N
Load of content through AJAX	N	N	N	Y	N	N	Y	Y	N	N	N
Desktop-like interface	N	N	N	N	N	N	N	N	N	N	N
Homepage customization	N	N	N	N	N	N	N	N	N	N	N
Content tagging	N	N	Y	N	N	N	N	N	N	N	N
Nice URLs	Y	N	N	N	N	Y	N	Y	N	N	Y

### 4 User and communities

	OSHA	CDC	CEDEFOP	DG_EMPL	DG_ENT	EEA	EPA	HSE	ILO	NetRegs	WHO
Subscriptions	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
User profiles	N	N	Y	N	N	N	N	Y	N	N	N
User contacts	N	N	Y	N	N	N	N	Y	N	N	N
User-submitted content	N	N	N	N	N	N	N	N	N	N	N
Forums	N	N	N	N	N	N	N	N	N	N	N
Blogs	Y	N	N	N	N	N	Y	N	N	N	N
User ratings	N	N	N	Y	N	N	N	N	N	N	N

### 5 External web 2.0 tools

	OSHA	CDC	CEDEFOP	DG_EMPL	DG_ENT	EEA	EPA	HSE	ILO	NetRegs	WHO
YouTube/Vimeo/Blip (video)	Y	Y	N	N	N	N	Y	N	N	N	N
Flickr/Picasa (photos)	N	N	N	N	N	N	Y	N	N	N	N
Facebook/MySpace (social)	N	Y	N	Y	N	N	Y	N	N	Y	N
Twitter/Tumblr (updates)	N	N	N	N	N	N	Y	N	N	Y	N
Digg/Reddit (news)	N	Y	N	N	N	N	Y	N	N	Y	N
Delicious/SUpon (bookmarking)	N	Y	N	N	N	N	Y	N	N	Y	N
Calendars/Maps/Charts	N	N	N	N	N	N	N	N	N	N	N
Others	N	N	N	N	N	N	Y	N	N	N	N

The following table summarizes the results obtained for each web:

	NEW TECHNOLOGIES	MULTIMEDIA USE	INTERFACE FEATURES	USERS AND COMMUNITIES	EXTERNAL WEB 2.0 TOOLS	TOTAL
<i>EPA</i>	1	3	3	2	7	16/32
<i>CDC</i>	2	3	1	1	4	11/32
<i>DG_EMPL</i>	2	2	3	2	1	10/32
<i>HSE</i>	1	2	3	3	0	9/32
<i>OSHA</i>	2	1	1	2	1	7/32
<i>CEDEFOP</i>	1	0	2	3	0	6/32
<i>DG_ENT</i>	1	0	2	1	0	4/32
<i>EEA</i>	1	1	1	1	0	4/32
<i>NetRegs</i>	0	0	0	0	4	4/32
<i>WHO</i>	1	1	1	1	0	4/32
<i>ILO</i>	1	2	0	0	0	3/32

This table shows that EU-OSHA site doesn't use so much web 2.0 tools, and this will be something to improve if the Agency wants to modernize the design of the web.

### 3.3.2 DEVELOPERS ANALYSIS

The team of expert developers, in charge of analyzing several aspects of the OSHA web site, has agreed this final report, with an analysis of each criteria and a final section with conclusions and recommendations.

#### Web Experts General Report

##### Usability

The main comments regarding the usability of the portal are related with the localization of the information and the navigation. Much effort has been made since the previous analysis in 2007. Nevertheless, there are some improvements that should be done. If the goal is that the visitor knows that some content is not accessible in its own language, this is only implemented in few cases.

Apart from this, the usability and navigation has been valued as good: predictable links, breadcrumbs and highlighted navigation helps users get to the information and lets them know where they are.

Further comments are related with the completion of metadata, the visibility of multimedia elements and the correction of some errors.

##### Accessibility

The accessibility analysis has also shown the improvements that have been made in this topic: The compliance with the WAI AA is almost complete, thus only few simple errors have been detected. The adaptation of the portal for visitors with visual disabilities has been also improved and now the colours chosen for text and background make the information accessible for all visitors.

In the accessibility chapter the future work should be focused in achieving the full compliance with AA level and W3C HTML and CSS standards.

**Design & Architecture**

The design of the portal has been maintained since last review. It is based on a flexible layout and light colour schemes.

This topic has gathered the largest number of comments by the reviewers. Several proposals have been provided to improve the readability the highlight of the information that is relevant and the organisation of the pages. The proliferation of higher screens resolutions imply some problems related with the flexible design such as long lines. The proposals include a better use of images to illustrate the content, a reorganisation of the menu or the layout (mainly for the homepage).

A redesign of the portal could make it more attractive and eye catching for the visitors and is a project strongly suggested by the experts.

**Security**

As in previous report no risks involving security have been detected

**Performance**

The performance of the portal was poor in some cases during the last review as it was stated in the reports. The time to display some of the search results pages was not acceptable and in some cases the page was not displayed.

Currently the performance of the portal has been really been improved. The overall performance is still acceptable but couldn't be considered as very good. Still, some content takes more time than expected to be displayed on screen.

**Functionality**

The proposals to improve the portal by adding new functionalities are focused on increasing visitor's interaction with the website. Polls, chats or other functionalities that help the OSHA to connect directly with the visitors should be implemented apart from the periodical surveys.

A more in depth analysis of the users and their needs would help to identify more functionalities or value if the existing ones are correctly implemented.

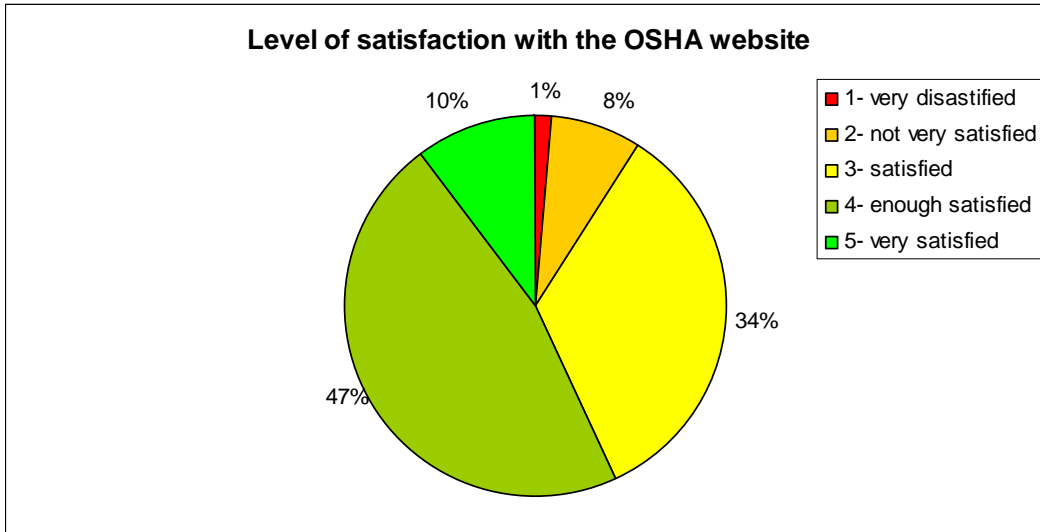
**Rich media presence and Web 2.0 tools**

The new OSHA Blog has been included recently as part of the use of Web 2.0 tools in the OSHA portal. This is a mayor improvement that should be made more visible somehow. Also the content that will be included in the blog should be clear to the visitors so that it is interesting for them to access it regularly. For the experts it is not clear if the content publishing strategy for the blog is clear.

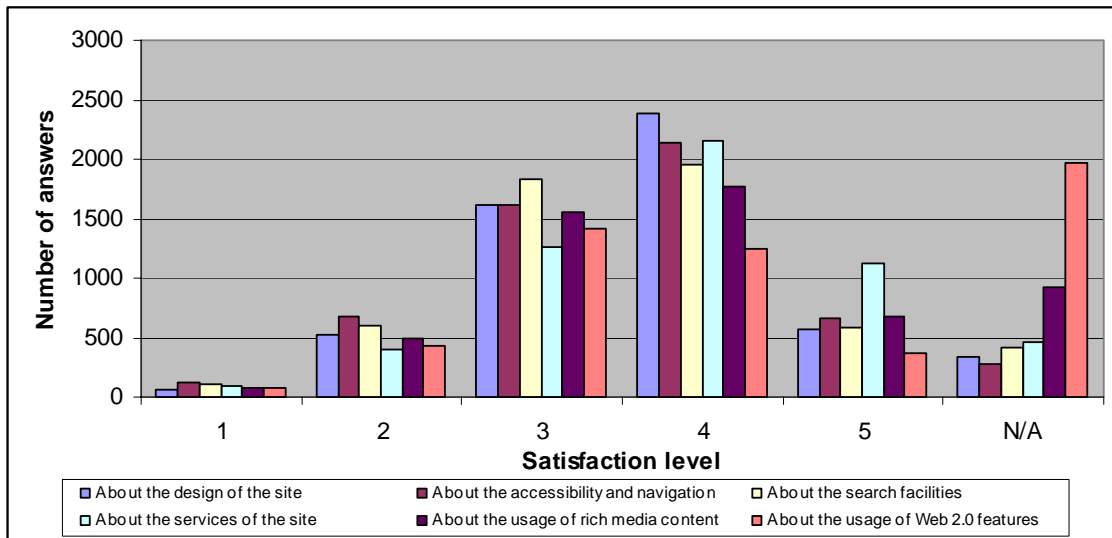
The use of videos is also a plus in the portal but how they are currently included in the web doesn't exploit all the potential of this technology. At least the size of the videos should be increased.

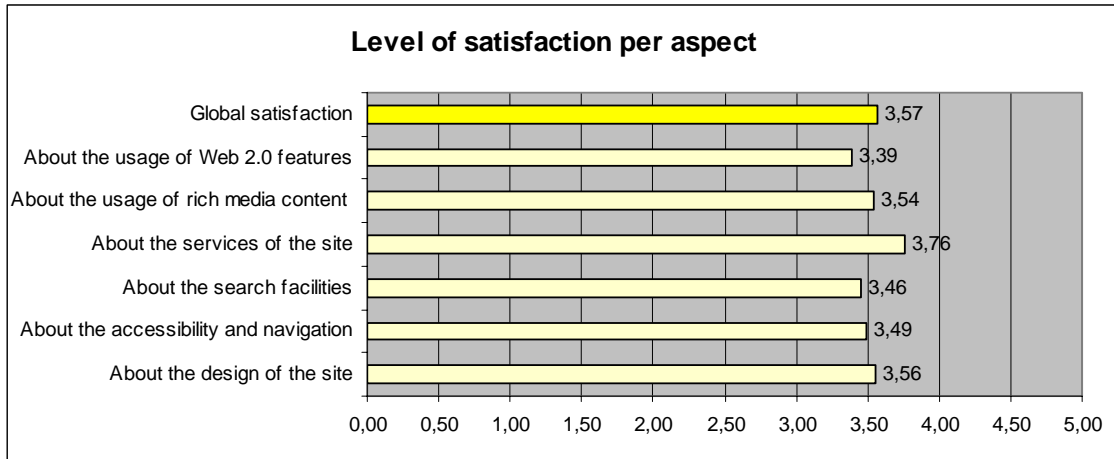
**3.3.3 OSH SUBSCRIBERS ANALYSIS**

From the results of the OSH subscribers on line survey (question9a), the first conclusions indicate that the OSHA web site visitors are enough satisfied with the OSHA web site. The following figure shows the results related to the global satisfaction of the user from a global point of view. The opinion of **5504** users has been taken into account.



Seizing the opportunity provided by the OSH subscribers on line survey, a second question about the satisfaction of the OSHA web site was done. In this question (question 9b), a more in depth analysis was required, asking about the level of satisfaction of different aspects (design of the site, navigation, accessibility, search facilities and services provided by the site. Like in the previous conclusion, the results show that the most of the users value as “enough satisfactory” all the aspects analyzed. The following figures show these results through the number of answers received for each aspect and the average obtained.





Obtaining a 3,57 out 5 for the global satisfaction of the OSHA web site, the figure shows as the services of the site is the most appreciated aspect with a mark of 3,76 out 5, whereas the search facilities is the worst one with a 3,46.

## 4 CONCLUSIONS AND RECOMMENDATIONS

The **conclusions** obtained are presented below:

- Different levels of development of each analyzed website: number of functionalities applicable to each website during the Evalweb analysis.
- Agency's web site is the website with the maximum number of functionalities implemented.
- The EU- OSHA website achieves a third position in the benchmarking study according to the Evalweb analyses, obtaining the best position the NetRegs web site.
- When applying weights to the "Web Standards" analysis, the Agency ranks 5th. European Environmental web site gets the first position.
- Web site's experts consider the EU-OSHA web site as a site with a high number of functionalities implemented and a good performance in general. The use of Web 2.0 tools is well considered.
- The OSH subscribers give a 3,57 out 5 for the global satisfaction of the EU-OSHA web site.
- The keyword analyses show the EU-OSHA website is more recognized for topics related with stress at work than for general working conditions and diseases.
- The keyword analysis show the EU-OSHA website appears often in Slovakian, Slovenian and Finnish; but not when key in German, Italian nor French.
- For the most of the languages, EU-OSHA website appears in 3rd position when key OSHA.
- The main pages of EU- OSHA website have a Page Rank higher than 5.
- Among the 100 first pages pointing out EU-OSHA website, 10 have a Page Rank higher than 4 and others 40 have a PR higher than 3.
- The EU-OSHA website has a good positioning in the Google search.
- The EU-OSHA website use a limited number of web 2.0 tools

The main **recommendations** are:

- To achieve the full compliance with AA level, W3C HTML and CSS standards
- Language tools need to be more consistent. Menus are not always translated, and articles not translated to non-English languages use an English language message to direct users to the original document. Also, linking translated documents to the document in its original language can be a good idea for visitors who want to read the original for reference.
- To improve the accessibility and visibility of Multimedia elements: transcription of the videos, infobox reporting the necessary Flash Player Plugin
- To increase the visibility of used web 2.0 tools and include more web 2.0 functionalities
- To improve the design of the site to enhance the user experience:

- to improve the readability the highlight of the information that is relevant and the organisation of the pages
- a better use of images to illustrate the content, a reorganisation of the menu or the layout (mainly for the homepage)
- the addition of different text sizes to titles, subtitles and menus could make the pages easier to quickly understand
- the news titles in the home page could be improved by adding contrast to the foreground/background color combination.
- to use color to direct user attention is a great way to treat news updates or important content. Currently the website is mostly gray.
- the Free Newsletter and Alert Service infoboxes are highlighted but placed far from the main focus of the home page

## 5 ANNEXES

### 5.1 BENCHMARKING METHOD

This section collects the guidelines and templates to be used in each exercise of analysis.

#### 5.1.1 QUESTIONNAIRE FOR DEVELOPERS



## OSHA Website Benchmarking Exercise

This questionnaire is designed to evaluate certain aspects of the Agency website (<http://osha.europa.eu/>). In particular its usability, accessibility, design and architecture, security, performance and functionality.

#### Usability

---

- Aspects to be taken into account:
  - Users should find the information in its own language
  - Users should be able to know when this is not possible
  - The way of retrieving the information should be predictable
  - Multimedia elements should be helpful and catch the user's attention, not distract him from watching the information.
  - Users should know "where they are" at any moment

#### Accessibility

---

The complete web site should be compliant with WAI- AA level.

#### Design & Architecture

---

- Aspects to be taken into account:
  - The design should help to organize the information
  - The use of colours should be correct
  - The structure of the website (menus, hierarchies) should help the user to find the information

#### Security

---

- Check possible security issues in forms and search sections

#### Performance

---

- Check whether the overall performance and in specific sections such as search forms is acceptable.

#### Functionality

---

- o Does the website include all the functionality that current techniques allow?
- o Should the website include further functionalities to the users?

## 5.1.2 QUESTIONS FOR THE OSH SUBSCRIBERS



### 9. Overall, how satisfied are you with the EU-OSHA website? X

Scale: 1 (very dissatisfied) ... 5 (very satisfied); N/A (not applicable)

1  2  3  4  5

**And more precisely**

	1	2	3	4	5	N/A
About the design of the site (graphical layout)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
About the accessibility and navigation (logic structure, ease of use – perceive, understand and interact)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About the search facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
About the services of the site (newsletter, alert service...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
About the usage of rich media content (videos, flash animations...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
About the usage of Web 2.0 features (wikis, blogs, ...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Submit question

## 5.2 ANALYSIS PHASE

### 5.2.1 LIST OF REQUIREMENTS

- o Usability

- RU000 The appropriate format must be used to display images
- RU001 Images must have appropriate size and dimensions
- RU002 GIF images must be loaded progressively
- RU004 The help section link (text or icon) must be in the top right corner
- RU005 A link to the help section must be available in all pages
- RU006 Downloadable files must be presented with file information
- RU007 The page must provide enough information to fill out the form correctly
- RU008 Image tags include width and height attributes
- RU009 Form data entry is accessible
- RU011 Form elements are correctly displayed and labeled
- RU012 Form validation is performed from left to right and top to bottom
- RU013 Menu options are correctly sorted

- RU014 All subsections must have navigation options to return to parent levels
- RU015 Menus must be broad (many options in parallel) instead of deep (many submenus inside other submenus) when possible
- RU019 Tabs must be clearly drawn
- RU021 There must not be horizontal scroll
- RU022 Links are correctly used
- RU023 The page titles are correct
- RU024 The home page must be linked in every page, except in the home page
- RU025 No links must open in new browser windows
- RU026 The visitors must know where they are all the time
- RU027 Underlined text must not be used
- RU028 Interstitial splash pages must not be used
- RU029 Use appropriate error pages to avoid browser 404 messages
- RU030 Allow deep linking
- RU031 Most common browsing elements are place in expected, easy-to-find areas
- RU032 All pages must have an outgoing link (no end-of-the-line pages)
- RU033 Useful information must be reachable in no more than 4 clicks
- RU034 The company describes itself, its mission and its activities appropriately
- RU035 The company must describe itself in a page titled "Who we are"
- RU036 The link to the privacy policy must read "Privacy Policy"
- RU037 The website logo image dimensions must be between 100x100 and 50x50
- RU038 The website logo must appear in the top left of the page
- RU039 The website logo image must be a link to the home page
- RU040 Las URL deben ser utilizarse lo más correctamente posible
- RU041 Stylesheets must be linked instead of embedded
- RU043 Stylesheets are formatted according to code style guidelines
- RU044 There must not be more than 3 advertisements in any single page
- RU045 Advertisements must load quickly
- RU046 Advertisements must not be offensive to the visitors
- RU047 The site map must not be graphical
- RU048 The search interface is adequate
- RU049 The search field is present in every page
- RU050 Search results are displayed correctly
- RU051 Data entry in text field is permissive enough
- RU052 Multilingual searches must be provided in multilingual sites
- RU053 Search results are correct
- RU054 Keywords are correctly used
- RU057 Images must be provided for any product on offer
- RU063 There must not be offensive symbols or icons
- RU065 Date and time information is correct
- RU066 The website uses an adequate domain name
- RU067 Language selection is correct
- RU068 Pop-up dialogs must have 30% white space
- RU070 Translations must be up to date
- RU071 The home page must not contain links to itself
- RU072 There must no be text frames in the home page
- RU076 Table cells must not be empty
- RU077 Tables must be correctly resized after changing font size
- RU078 There must not be spelling errors

- RU079 Typography is correctly used
- RU080 Colors are correctly used
- RU081 The writing style is adequate
- RU082 Text and paragraph formatting is adequate
- RU083 Content requiring plugins must be correctly labeled and information about the plugin must be available
- RU084 The site is able to detect plugins and use them or warn the user
- RU085 User registration is explained in detail
- RU086 Users must not be imposed registration if it's not necessary
- RU087 When asking users for personal data, a link to the Privacy Policy must be clearly visible
- RU088 There's proper enough information about every multimedia file
- RU089 Users can control media playback
- RU090 Videos must be available for download alongside streaming
- RU091 Long streaming videos must be split in moderately-sized sections
- RU092 Animations must not be set in infinite loops
- RU093 Images must not use rotated vertical text
- RU100 Web pages must be adapted for printing
- RU101 PDF and PS files must be compatible with A4 and 8.5x11 international sizes
- RU102 Print versions of the pages must clearly state with URL is being printed
- RU103 Print versions must have white background
- RU104 Lists are properly displayed
- RU106 Slow-loading pages must provide feedback while the loading is in progress
- RU107 Links to slow-loading pages must have a warning
- RU112 Sections must be correctly displayed and described
- RU113 Sections must have more than one sub-section
- RU114 The user must be able to skip any introduction movie or animation or splash page
- RU115 The site must have a search function
- RU116 The site must have a site map
- RU117 After a page refresh, form fields must retain previous values
- RU119 Text-only versions of the site must not use frames
- RU120 Text-only versions of the website must be linked in the top right of the page
- RU127 The server clock must be used instead of the client's
- RU128 Browser configuration and user settings must not be overridden
- RU129 No "Under construction" messages must be displayed
- RU130 No jargon must be used
- RU131 Session expiration time must be appropriately long
- RU132 Session expiration time must be clearly displayed
- RU133 No broken images
- RU139 The main message or mission of the site is in an easy-to-find position
- RU140 Key information and services have high visibility
- RU141 The home page includes all the primary navigational options and access to available facilities
- RU142 The site is navigable without the use of the "back" button
- RU143 Users are able to choose multimedia content
- RU144 The home page does not include multimedia content
- RU145 Text content is written specifically or adapted to take advantage of the web
- RU146 The content is easily scannable (sub-headings, text emphasis, bulleted lists, paragraph separation)

- o Accessibility

- RA000 Provide an alternative text for the images
- RA001 Provide redundant text links for each active area of an image map
- RA002 Synchronize with the alternative multimedia presentations as subtitles or sonorous descriptions of the visual track
- RA003 Assure that all information provided using colour is also without colour
- RA004 Assure that the combination of colours of background and the first level offer the enough contrast.
- RA005 Create documents validated according to the rules of formal published grammars.
- RA006 Use style sheets to control the layout and the presentation.
- RA007 Use relative units instead of absolute in the attributes of the Markup Language and in the property values of the style sheets
- RA008 Use heading elements to communicate the structure of the document according to the specification.
- RA010 Identify clearly the changes in the original language of a text document.
- RA011 Identify the main language of a document.
- RA012 Create tables with the appropriate marks adapted for its transformation.
- RA013 Do not use tables for layout unless the tables have sense when they are lined up
- RA014 Provide summaries of the tables.
- RA015 Organize the document so that it could be read without style sheets.
- RA016 Assure that the equivalent frames are updated when the dynamic content is changed.
- RA017 Assure that the equivalent scripts are updated when the dynamic content is changed.  
Assure that the pages can be used when they are disconnected or the scripts, applets or other elements of programming are not supported.
- RA018 supported.
- RA019 Avoid the sparkles and the winking of the elements that appear on screen.
- RA020 Avoid the moving content in the pages.
- RA021 Do not to create pages that refresh themselves automatically.
- RA022 Do not to use markers to forward automatically the pages.
- RA023 Make the elements of programming as scripts and applets directly accessible or compatible with technical helps.
- RA024 Provide image maps in the side of the client instead of server maps when possible.
- RA025 Design pages in which the access is independent from the device.
- RA026 Title every frame to facilitate the identification and navigation among them.
- RA027 Associate explicitly the labels with their corresponding controls.
- RA028 Identify clearly the target of every link.
- RA029 Use the appropriate language that is clearer and simpler for the content of a site.
- RA030 Provide alternative text in applets and objects.
- RA031 Provide alternative text in the pages that use frames.
- RA032 Provide alternative text for scripts.
- RA033 Images - texts must not be used
- RA034 The application must fulfill the HTML standard.
- RA035 The application must fulfill the XHTML standard.
- RA036 All functionality of the content is operable through a keyboard interface.
- RA037 There are no keyboard traps. The user is advised of the method for moving focus away.
- RA038 The Web page does not not contain anything that flashes more than three times in any one second period.
- RA039 A mechanism that identifies specific definitions of words or phrases or abbreviations is available
- RA040 A mechanism that identifies specific pronunciation of words where meaning of the words is not clear.
- RA041 If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.

- o **Security**

- Rs031 There is a classification of messages (specific and not general messages of error or information)
- Rs039 Validation of active accounts before registering a new e-mail
- Rs040 Not acceptance of massive/free web mail accounts

- Rs041 Security of the operation confirmation process sending a confirmation email
- Rs055 Identify and inform the user about HTML elements and specific Javascript of certain version or type of browser

- o **Functionality**

- Rf001 The functional requirements are defined
- Rf002 Functional requirements revision
- Rf003 Functional requirements assessment and acceptance
- Rf004 Access Profiles
- Rf007 Include user controls for multimedia content (play/stop/rewind/volume)
- Rf008 Estimate the number of visitors expected per month (or per day)
- Rf009 Provide information of guidance to help users to understand pages or elements
- Rf010 Use of style guidelines
- Rf011 User friendliness (intuitive interface)
- Rf012 Have alternative methods to the form to send information (forms, e-mail, fax...)

- o **Architecture and Design**

- RAD001 Internal and external references
- RAD002 Information storage
- RAD003 Web page image
- RAD004 Balanced design
- RAD005 Uniformity and variety
- RAD006 Hierarchy
- RAD007 Usability and legibility
- RAD008 Contact Information
- RAD009 Separated content in the server
- RAD010 Server filesystem depth
- RAD011 Content labeling
- RAD012 Titles

- o **HTML Standards**

- RH000 Add titles and paragraphs
- RH001 Emphasize the text
- RH004 Use line breaks properly
- RH005 Introduce spaces without breaking
- RH006 Use entities for special characters
- RH007 Use preformatted text
- RH008 Place text around images
- RH009 Use unsorted lists
- RH010 Use sorted lists
- RH011 Use definition lists
- RH012 Use effects
- RH013 Use logos as advertisements
- RH100 Start the application with a title
- RH111 Access to other pages clicking on an image

- o Other Requirements

- ROP000 Popularity of the web page
- ROP002 The website is well-positioned in key web searches
- ROC102 Pages with alternative elements for browsers without plug-ins.
- RCMP001 The website is well-rendered in Internet Explorer and at least one other mainstream browser (Firefox, Opera, Safari)

- o Capacity

- RC000 The maximum number of HTML files in the web page should be 2.
- RC001 The maximum number of objects in the web page should be 8.
- RC002 The maximum number of images in the web page should be 10.
- RC003 The maximum number of style sheets in the web page should be 1.
- RC004 The maximum number of external multimedia files in the web page should be 1.
- RC005 The size of the web page should be less than 30Kb.
- RC006 The maximum number of external scripts should be 2.
- RC007 The total size of the HTML page should be less than 20Kb.
- RC008 The total size of the images should be less than 30Kb.
- RC009 The total size of the external scripts should be less than 8Kb.
- RC010 The total size of the external style sheets should be less than 8Kb.
- RC011 The total size of the external multimedia files should be less than 20Kb.

- o Availability

- RAv000 The availability (uptime) of the website must be at least of 99%.
- RAv001 The response time of the website must not exceed 10 seconds.

- o Web credibility

- RWc000 The web site includes information about the organization, its location, telephone, e-mail and photos
- RWc001 The web uses the same name in the URL to take advantage of user's trust
- RWc002 Include the date of the publication of the information (not system clock) in all pages
- RWc003 In an article the credentials of the author, appointments and references with the correct format are included
- RWc004 Avoid not updated information
- RWc005 Include links to relevant webs
- RWc006 Include the objectives of the web
- RWc007 Include the content policy of the web
- RWc008 Avoid asking the user for signing up in the website or delay this situation as much as possible  
If the web site asks for the user's phone number or e-mail address, the web site explains the demand for this
- RWc009 information
- RWc010 Avoid free hosting of relevant data
- RWc011 Avoid policies of secrecy with the information
- RWc012 The web site has trust certificates

## 5.2.2 WEB 2.0 ASSESSMENTE: CHARACTERISTICS ANALYZED

- **NEW TECHNOLOGIES:**

### **CSS 3**

Version 3 of the Cascading Style Sheets standard; includes new properties like rounded borders, multiple backgrounds per element, font embedding, color profiles, text shadow, multi-column containers; includes new selectors (X-Path).

### **HTML 5**

The successor of HTML and XHTML; includes new tags to embed multimedia content natively (<VIDEO>, <AUDIO>), further separation between layout and presentation, browsing history and offline browsing for Web 2.0 applications.

### **Microformats**

Microformats are small pieces of HTML code, with standardised structure and content, created to ease the work of search engine in the categorisation of information. Microformats work as patterns or templates, in which information can be filled in.

### **Javascript Libraries**

The extended support for Javascript has popularised the language and increased the complexity of the code written in it, so pre-made Javascript libraries ease development of medium to large web applications and allow for the creation of interfaces with more interactivity and desktop-like attributes.

- **MULTIMEDIA USE**

### **Interactive maps**

Whenever a location is mentioned, a map can show the location and allow the user to add their own location and a route from point to point; maps can be used to gather geological information from the user base.

### **Charts**

The inclusion of dynamic charts, updated automatically when new data is available, is a way of keeping information fresh and current.

### **Hi-resolution Images**

Large imagery can be useful either to show detailed information or to adorn a website; increased bandwidth allows for image sizes to be incremented, and images help give webpages a modern, lively look.

### **Slideshows**

Interactive slideshows work alongside menu options, photo galleries, and informational campaigns or whenever a serialized set of related items is needed, and provide an intuitive interface to interact with photo albums or website sections.

### **Embedded video**

Video is growing as a way to deliver interesting, visually rich content via the web. Apart from offering downloadable video files, video can be embedded using Flash or other technology for the users' convenience.

- **INTERFACE FEATURES**

***Dynamic interface***

Modern interfaces react to their users' actions. Some of them simply hide information when the user shows their interest in other sections; others use this technique to simplify hierarchical menus.

***Modern style***

The Web 2.0 style focuses on eye-catching designs and legibility through typography. Large and clear typefaces, subtle background colors, gradients, rounded shapes and big images are distinct Web 2.0 design choices.

***Load of content through AJAX***

In order to reduce or eliminate the delay of loading a new page when clicking a link, the designer can opt to query the web server behind the scenes and retrieve only the piece of information needed. They could, for example, load the second page of an article only by substituting the text of the first page, leaving the rest of the interface in place, and avoiding a full refresh of the document.

***Desktop-like interface***

To make some web applications more familiar and user-friendly, the web designer can adopt patterns from desktop applications, like pop-up menus or double-click functionality.

***Homepage customization***

Since every user is different, web pages can allow them to choose what content they want to see displayed when they enter the website.

- **USER AND COMMUNITIES**

***Subscriptions***

RSS (Really Simple Syndication) is a format that allows some applications (like email clients, NetVibes or Google Reader) to receive notifications every time new content is added to the website.

***User profiles***

A website can have a space for users to create a persona and customise their experience, like adding favourite topics, changing the default font size, video formats or overall style of the web pages.

***User contacts***

Allowing the users to see each other is a good way of adding a community feeling. They can form groups with common interests and collaborate with the website through their experiences.

***User-submitted content***

Web 2.0 is the web of the people, and some websites rely on their users to provide part or all of the content, or simply add insight to articles published in a blog.

***Forums***

Forums are a veteran tool to exchange information, and most communities have a forum in which users can post messages and reply to others' messages.

***Blogs***

Single-author or multi-author blogs provide a chronological, update-based source of information. Most blogs encourage user participation by allowing the visitors to make comments to the authors' articles.

### ***User ratings***

A rating system, either five-star, thumbs up/thumbs down or "I like this", serves a purpose for both website administrators and visitors. It helps the owners realise what articles, videos or photos are better received by the public, and it tells the visitors which the most interesting content is.

- **EXTERNAL WEB 2.0 TOOLS**

#### ***Video***

Video sharing sites can provide the storage space and the software needed to enable constant video content, either with feature videos or even with a WebTV channel.

#### ***Photos***

Websites for photographers create a streamlined way of cataloguing, browsing and even editing photographs.

#### ***Social Networks***

Social networking helps people find other people with common interests, and some websites use it to centralize their community of users, organize events or publish content not suited for their main website.

#### ***Quick Updates***

Twitter allows the users to write concise, 140-character messages and read their contacts' messages in a very simple way.

#### ***News sites***

News articles can be submitted to news aggregators like Digg or Reddit, where the articles are evaluated and promoted if they prove interesting to enough users of the aggregator.

#### ***Social Bookmarking***

By attaching keyword labels to an article, it can be associated to similar articles from different sources. Social bookmarking is the practice of "tagging" articles and sharing them.

#### ***Graph Tools***

Using interactive maps or statistic charts tools is a compelling way of making users interact with a website. Instead of displaying static images in JPEG format, charts and maps can be created in the moment with just the information the user wants to see.

#### ***Other tools***

Yelp for food reviews, Aviary for image editing, Tom's Planner for project management, Wikipedia for reference, AskForAnswers for question-and-answer relationships, Odeo for podcasting, Remember the Milk for task lists, Last.fm for radio channels, 280slides for web presentations, Google Docs for document sharing...

## 5.2.3 RESULTS OF THE EVALWEB ANALYSIS

### 5.2.3.1 OSHA WEB SITE ANALYSIS

#### 5.2.3.1.1 TESTED PAGES

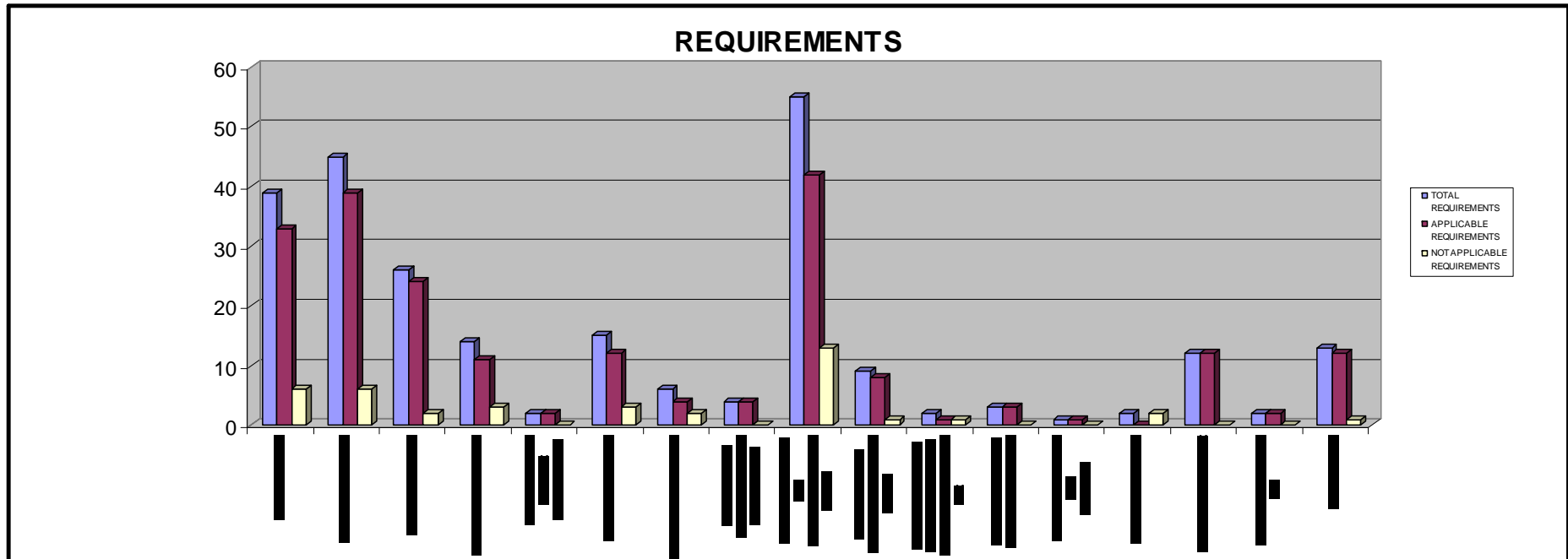
<http://osha.europa.eu/en>  
<http://osha.europa.eu/en/about>  
<http://osha.europa.eu/es/about/index.html>  
<http://osha.europa.eu/en/practical-solutions>  
<http://www.epa.gov/epahome/scitech.htm>  
<http://osha.europa.eu/en/sector/agriculture>  
<http://osha.europa.eu/en/campaigns/ew2007>  
<http://osha.europa.eu/en/press/photos>  
<http://osha.europa.eu/en/blog>  
<http://osha.europa.eu/en/sitemap>  
<http://osha.europa.eu/en/privacy-policy>  
<http://osha.europa.eu/en/help>

**5.2.3.1.2 ANALYSIS ACCORDING TO ASPECTS DEFINED BY EVALWEB METHOD**

**5.2.3.1.2.1 APPLICABLE REQUIREMENTS**

SECTION	TOTAL REQUIREMENTS	APPLICABLE REQUIREMENTS	NOT APPLICABLE REQUIREMENTS	APPLICABILITY PERCENTAGE
GENERAL ASPECTS	39	33	6	84,62%
SECTIONS AND CONTENT	45	39	6	86,67%
NAVIGATION CAPACITY	26	24	2	92,31%
SPECIFIC CHARACTERISTIC	14	11	3	78,57%
ASPECTS LINKED TO SOFTWARE INFRASTRUCTURE	2	2	0	100,00%
FEATURES (FUNCTIONS)	15	12	3	80,00%
LOGIN AND AUTHENTICATION	6	4	2	66,67%
SECURITY DURING TRANSACTIONS AND IN FUNCTIONALITIES	4	4	0	100,00%
ASPECTS LINKED TO THE TYPE OF ACCESSIBILITY OF THE WEB SITE	55	42	13	76,36%
ASPECTS LINKED TO ELEMENTS PRESENT IN THE WEB SITE	9	8	1	88,89%
ASPECTS LINKED TO THE TECHNOLOGIES THAT ARE INCORPORATED IN THE WEB SITE	2	1	1	50,00%
ASPECTS LINKED TO THE EXECUTION ENVIRONMENT	3	3	0	100,00%
ASPECTS LINKED TO THE TYPE OF WEB SITE	1	1	0	100,00%
SERVER CONFIGURATION	2	0	2	0,00%
CAPACITY OF THE WEB SITE	12	12	0	100,00%
AVAILABILITY OF THE WEB SITE	2	2	0	100,00%
WEB CREDIBILITY	13	12	1	92,31%

The graphic bellow shows the total number of requirements as established in the methodology EVALWEB (in blue) and the number of "Applicable" (in red) and "Not applicable" (in yellow) requirements for EU-OSHA.



**5.2.3.1.2.2 RESULTS**

The following table shows the results obtained for each aspect through the analysis of the applicable requirements.

ASPECT CODE	INDICATOR DESCRIPTION	REQUIREMENTS OK	REQUIREMENTS NOT OK	NOT CONSIDERED	FULFILMENT (OK-NOT OK)	TOTAL FULFILMENT
<b>General aspects</b>						
Aspect [F001]	High position in search engines	RAD001/ROP000/ ROP002			100%	100%
Aspect [F007]	Legibility	RAD004/RAD007/ RAD008/RH000/ RH001/RH004/ RH005/RH008/ Ru027/Ru078/ Ru079/Ru081/ Ru082/Ru146	RH006/Ru080	RH007	88%	82%
Aspect [F037]	Web site	Rf009/Rf011/ Rf012/Ru021/ Ru040/Ru072/ Ru128/RU139/ RU140		Rf001/Rf002/ Rf003/Rf008/ Rf010	100%	64%
Aspect [F043]	Use of style sheets	Ru054			100%	100%
Aspect [FH100]	Web with text and images	RH100/RH111/ Ru145			100%	100%
Aspect [Fo101]	Web with Plug-ins		ROC102		0%	0%
<b>Sections and Content</b>						
Aspect [F005]	Web with images	Ra000/Ra033/ Rh008/Ru000/ Ru001/Ru002/ Ru008/Ru133		Ra001/Ra024	100%	80%

Aspect [F006]	Web with multimedia elements	Rf007/Ru088/ Ru089/Ru090/ Ru093/Ru143	Ra002/Ru091/ Ru092/Ru144		60%	60%
Aspect [F008]	Web with sections	RAD005/RAD006			100%	100%
Aspect [F009]	Web with content stored on a server			RAD009/RAD010/RAD011	100%	0%
Aspect [F013]	Web with tables	Ru076/Ru077/ RA013/RA012	RA014		80%	80%
Aspect [F014]	Web with lists	RH009/RH010		RH011	100%	67%
Aspect [F015]	Web with effects	Ra038/RH012/ RH013			100%	100%
Aspect [F030]	Existence of a Help Section	Ru005	Ru004		50%	50%
Aspect [F035]	Privacy standards	Ru036			100%	100%
Aspect [F039]	The Web site contains publicity	Ru044/Ru045/ Ru046			100%	100%
Aspect [F051]	Web organized by sections	Ru112/Ru113/ Ru129			100%	100%
<b>Navigation capacity</b>						
Aspect [F003]	Web navigable	RAD004/RAD007/ RAD008/RAD012/ Ru022/Ru023/ Ru024/Ru025/ Ru026/Ru028/ Ru029/Ru030/ Ru031/Ru032/ Ru033/Ru142	Ra036/RU071	RAD002	89%	84%
Aspect [F032]	Use of menus	Ru013/Ru014/ Ru015/Ru141			100%	100%
Aspect [F034]	Web with crumb trail	Ru013/Ru014		RU019	100%	67%

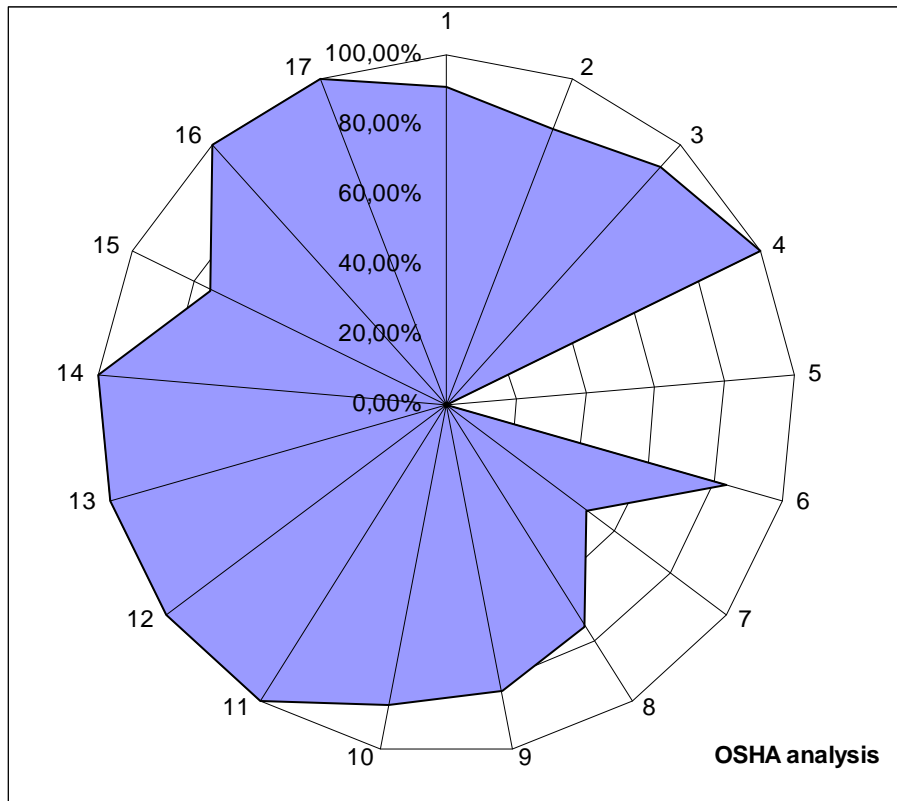
<b>Specific characteristics</b>						
Aspect [F004]	Web with company image	RAD003/Ru034/ Ru035			100%	100%
Aspect [F047]	Web printable	Ru101/Ru102/ Ru103/Ru100			100%	100%
Aspect [F048]	Offering very large listings	RU014		Ru057	100%	50%
Aspect [F049]	Web with pages that take a long time to load			Ru106/Ru107	100%	0%
Aspect [F052]	Dealing with a large Web site	Ru115/Ru116			100%	100%
Aspect [F067]	The Web site uses date and time	Ru127			100%	100%
<b>Aspects linked to software infrastructure</b>						
Aspect [F010]	Client needs a tools or plug-in installed		RU083/RU084		0%	0%
<b>Features (Functions)</b>						
Aspect [F031]	Web with file downloads	Ru006			100%	100%
Aspect [F041]	Uses site map	Ru047			100%	100%
Aspect [F042]	Includes a search option	Ra041/Ru048/ Ru049/Ru050/ Ru052/Ru053	RU051		86%	86%
Aspect [F046]	Use of different languages	Ru052/Ru070	Ru067	Ru068	67%	50%
Aspect [F066]	Compatibility with text navigators			Ru119/Ru120	100%	0%
<b>Login and authentication</b>						
Aspect [F023]	Distinction between roles or types of users in private part (independently of the existence of users – administrators)	RF004/RU086	RU085/RU087	RU131/Ru132	50%	33%

<b>Security during transactions and in functionalities</b>						
Aspect [F083]	Methods for confirming data and operations which involve e-mail	Rs039/Rs040/ Rs041			100%	100%
Aspect [F088]	The use of novel characteristics, exclusive or little tried in navigators, dependent on concrete versions or without guarantee of the same functionality in older versions of the same navigator or other different navigators		Rs055		0%	0%
<b>Aspects linked to the type of accessibility of the Web site</b>						
Aspect [F025]	Web with general accessibility	RA000/RA003/ RA004/RA006/ RA007/RA012/ RA015/RA021/ RA022/RA028/ RA029/RA033/ RA035/RA037/ RCMP001/ROC101	RA005	RA001/RA024/ RA034/RA039/ RA040	94%	73%
Aspect [F026]	Web accessible for disabled people	Ra003/Ra004/ Ra006/Ra011/ Ra012/Ra013/ Ra015/Ra017/ Ra018/Ra020/ Ra021/Ra022/ Ra025/Ra027/ Ra028/Ra029/ Ra032/Ra033/ Ra035	Ra002/Ra005/ Ra008/Ra019/ Ra023/Ra030	Ra001/Ra010/ Ra014/Ra016/ Ra024/Ra026/ Ra031/Ra034	76,00%	58%

<b>Aspects linked to elements present in the Web site</b>						
Aspect [F027]	Existence de forms	Ru007/Ru009/ Ru012/Rf011	RU011		80%	80%
Aspect [F036]	A logotype is included	Ru037/Ru038/ Ru039			100%	100%
Aspect [F065]	The presence of start-up animation			Ru114	100%	0%
<b>Aspects linked to the technologies that are incorporated in the Web site</b>						
Aspect [F038]	International Web site	Ru041		Ru043	100%	50%
<b>Aspects linked to the execution environment</b>						
Aspect [F045]	International Web site	Ru063/Ru065/ Ru066			100%	100%
<b>Aspects linked to the type of Web site</b>						
Aspect [F057]	A Web site with news service	Ru130			100%	100%
<b>Server Configuration</b>						
Aspect [F068]	The sessions expire on time			Ru131/Ru132	100%	0%
<b>Capacity of the Web site</b>						
Aspect [Fc000]	Speed of the page.	RC000/RC003/ RC005/RC006/ RC007/RC008/ RC009/RC010/ RC011	RC001/RC002/ RC004		75%	75%

<b>Availability of the Web site</b>						
Aspect [FAv000]	Availability and response time of the page.	RAv000/RAv001			100%	100%
<b>Web credibility</b>						
Aspect [FWC000]	Evaluation of the web credibility	RWc000/RWc001/ RWc002/RWc004/ RWc005/RWc006/ RWc007/RWc008/ RWc009/RWc011/ RWc003/RWc010		RWc012	100,00%	92,31%

The figure below collects all this information in an only graphic



- 1 GENERAL ASPECTS
- 2 SECTIONS AND CONTENT
- 3 NAVIGATION CAPACITY
- 4 SPECIFIC CHARACTERISTIC
- 5 ASPECTS LINKED TO SOFTWARE INFRASTRUCTURE
- 6 FEATURES (FUNCTIONS)
- 7 LOGIN AND AUTHENTICATION
- 8 SECURITY DURING TRANSACTIONS AND IN FUNCTIONALITIES
- 9 ASPECTS LINKED TO THE TYPE OF ACCESSIBILITY OF THE WEB SITE
- 10 ASPECTS LINKED TO ELEMENTS PRESENT IN THE WEB SITE
- 11 ASPECTS LINKED TO THE TECHNOLOGIES THAT ARE INCORPORATED IN THE WEB SITE
- 12 ASPECTS LINKED TO THE EXECUTION ENVIRONMENT
- 13 ASPECTS LINKED TO THE TYPE OF WEB SITE
- 14 SERVER CONFIGURATION
- 15 CAPACITY OF THE WEB SITE
- 16 AVAILABILITY OF THE WEB SITE
- 17 WEB CREDIBILITY

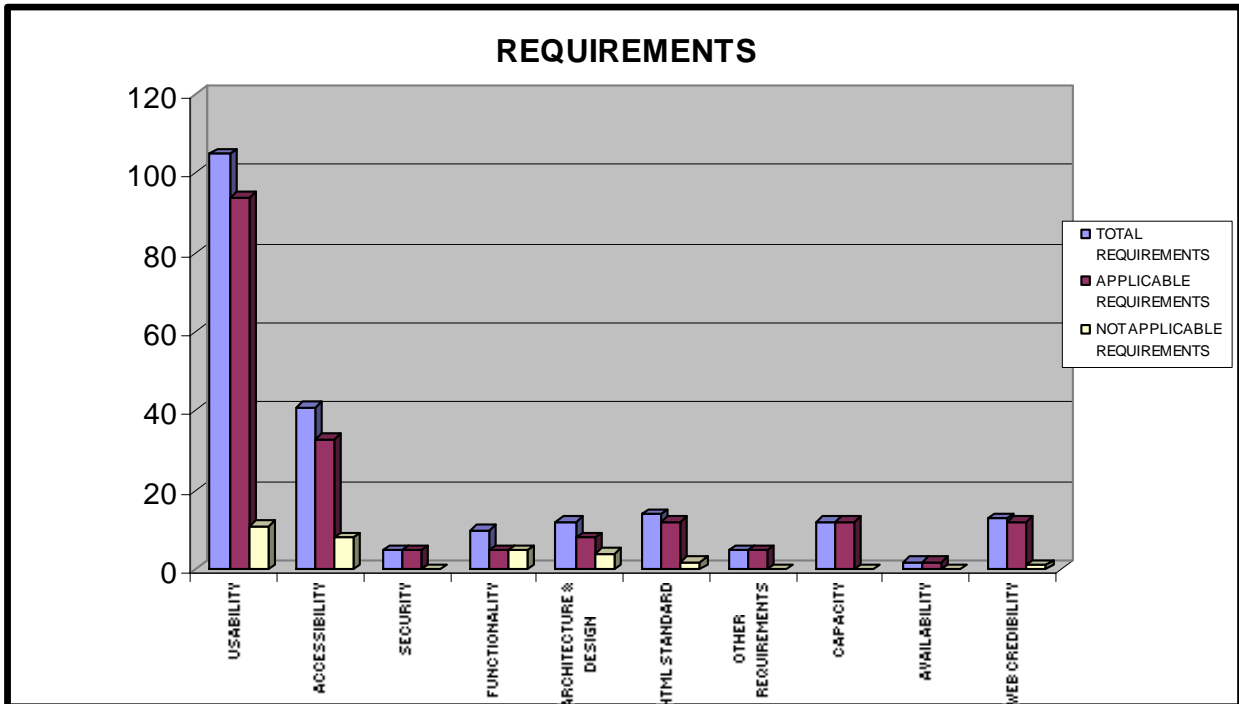
**5.2.3.1.3 ANALYSIS ACCORDING TO ASPECTS DEFINED BY WEB STANDARDS**

**5.2.3.1.3.1 APPLICABLE REQUIREMENTS**

SECTION	NOT APPLICABLE REQUIREMENTS			
	LACK OF INFORMATION*		FEATURE NOT IMPLEMENTED**	
	Number of requirements	Requirements	Number of requirements	Requirements
USABILITY	3	RU043/RU106/RU107	9	RU019/RU057/RU068/RU114/RU119/RU120/RU131/RU132
ACCESSIBILITY	0	-	8	RA001/RA010/RA014/RA016/RA024/RA026/RA031/RA034
SECURITY	0	-	0	-
FUNCTIONALITY	5	Rf001/Rf002/Rf003/Rf008/Rf010	0	-
ARCHITECTURE & DESIGN	4	RAD002/RAD009/RAD010/RAD011	0	-
HTML STANDARD	0	-	2	RH007/RH011
OTHER REQUIREMENTS	0	-	0	-
CAPACITY	0	-	0	-
AVAILABILITY	0	-	0	-
WEB CREDIBILITY	0	-	1	RWC012

\*The needed information to verify the requirements is not accessible, due to website confidentiality and privacy issues. \*\*The functionality related to these requirements is not implemented in the web site.

This graphic shows the total number of requirements as established in the methodology (in blue) and the number of "Applicable" (in red) and "Not applicable" (in yellow) requirements for OSHA.



### 5.2.3.1.3.2 RESULTS

- Usability

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
RU000	F005	Complete	High	PASSED	GIF and JPG are correctly used
RU001	F005	Complete	High	PASSED	IMG tags have width and height attributes
RU002	F005	Complete	Low	PASSED	
RU004	F030	Complete	Medium	FAILED	A link to the help section labeled "First time here?" sits at the top of the menu in the home page. Additional links to the help section and FAQs are placed at the bottom of the page
RU005	F030	Complete	High	PASSED	Link is at the bottom of the page
RU006	F031	Complete	High	PASSED	Files have file size info and multiple download time estimations
RU007	F027	Complete	High	PASSED	
RU008	F005	Complete	High	PASSED	IMG tags have width and height attributes
RU009	F027	Complete	Medium	PASSED	Forms are simple (input boxes and buttons)
RU011	F027	Complete	High	FAILED	Elements are correctly displayed, but not labeled; Language selection box does not work if javascript is disabled because it has no button; Search box has label, but it's not associated
RU012	F027	Complete	Low	PASSED	

RU013	F032 & F034	Share	High	PASSED	
RU014	F032 & F034	Share	High	PASSED	The menu and a breadcrumb trail are always present
RU015	F032	Complete	Medium	PASSED	There are 13 main menu options, many of them with sub-menus
RU019	F034	Complete	High	Not considered	Traditional menus are used instead of tabs
RU021	F037	Complete	High	PASSED	
RU022	F003	Complete	High	PASSED	Links are correctly displayed and styled
RU023	F003	Complete	High	PASSED	Page titles are correct, in the form SUBSECTION -SECTION - WEBSITE
RU024	F003	Complete	High	PASSED	The home page links itself via breadcrumb trail and logo image (see RU071)
RU025	F003	Complete	High	PASSED	No links open in new windows or tabs unexpectedly
RU026	F003	Complete	Medium	PASSED	There's a breadcrumb trail of links

RU027	F007	Complete	High	PASSED	
RU028	F003	Complete	Medium	PASSED	
RU029	F003	Complete	Low	PASSED	
RU030	F003	Complete	Medium	PASSED	
RU031	F003	Complete	Medium	PASSED	Menus to the left, language selection in the top right, site information in the footer
RU032	F003	Complete	High	PASSED	
RU033	F003	Complete	High	PASSED	
RU034	F004	Complete	High	PASSED	About us section in the main menu
RU035	F004	Complete	Medium	PASSED	The page is title About us
RU036	F035	Complete	High	PASSED	Privacy Policy link in the footer
RU037	F036	Complete	Medium	PASSED	201x91, includes graphic text
RU038	F036	Complete	High	PASSED	
RU039	F036	Complete	Medium	PASSED	
RU040	F037	Complete	High	PASSED	Some URLs are unintuitive: <a href="http://osha.europa.eu/en/sector/construction/index_html/general_safety">http://osha.europa.eu/en/sector/construction/index_html/general_safety</a>
RU041	F038	Complete	High	PASSED	@import clause used in main html document
RU043	F038	Complete	Medium	Not considered	Unknown; CMS guidelines are supposed to be in use

RU044	F039	Complete	Medium	PASSED	There is 1 banner at the top of the home page
RU045	F039	Complete	Medium	PASSED	
RU046	F039	Complete	High	PASSED	The home page banner is for in-house promotions
RU047	F041	Complete	High	PASSED	
RU048	F042	Complete	High	PASSED	Google Custom Search is used for site searches
RU049	F042	Complete	High	PASSED	Disappears in the site map, along with the rest of the menus
RU050	F042	Complete	High	PASSED	Google results are used
RU051	F042	Complete	Low	FAILED	Some typos are not caught, like 'dont'
RU052	F042 && F046	Share	Medium	PASSED	Searches can be performed in any language
RU053	F042	Complete	High	PASSED	Google search engine is used
RU054	F043	Complete	High	PASSED	
RU057	F048	Complete	High	Not considered	This is not a commercial web site, so it does not show any image about its products.

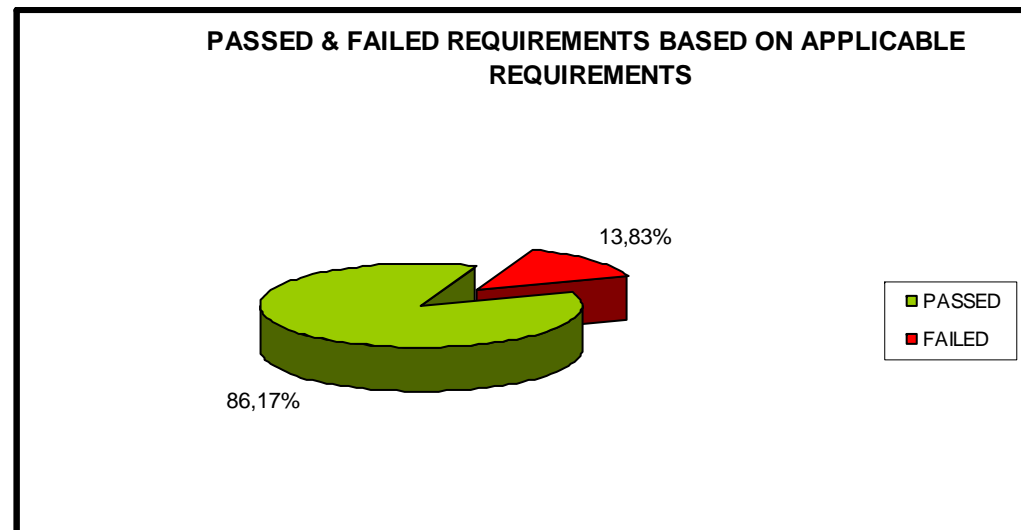
RU063	F045	Complete	High	PASSED	
RU065	F045	Complete	Medium	PASSED	
RU066	F045	Complete	Medium	PASSED	Company name and url acronym don't match
RU067	F046	Complete	Medium	FAILED	Main language selector does not work without Javascript
RU068	F046	Complete	Medium	Not considered	No pop-up dialogs or alert messages
RU070	F046	Complete	High	PASSED	Each language has distinct content
RU071	F003	Complete	Low	FAILED	The home page links itself via breadcrumb trail and logo image
RU072	F037	Complete	Medium	PASSED	
RU076	F013	Complete	Medium	PASSED	
RU077	F013	Complete	Medium	PASSED	
RU078	F007	Complete	High	PASSED	This web has been checked in 'English' and 'Español'
RU079	F007	Complete	Medium	PASSED	
RU080	F007	Complete	High	FAILED	All text (titles and paragraphs) is the same size
RU081	F007	Complete	Medium	PASSED	
RU082	F007	Complete	Medium	PASSED	
RU083	F010	Complete	Medium	FAILED	There is no information about plugins in this video: <a href="http://osha.europa.eu/en/press/photos/topics/Stress">http://osha.europa.eu/en/press/photos/topics/Stress</a>

					Others use Quicktime, without info
RU084	F010	Complete	Low	FAILED	When Javascript is disabled, embedded video in the In Focus infobox doesn't work
RU085	F023	Complete	High	FAILED	Topics section requires login, but this is not explained
RU086	F023	Complete	Medium	PASSED	
RU087	F023	Complete	High	FAILED	The "Send this by email" form does not link explicitly to the privacy policy, although it's available in the bottom menu
RU088	F006	Complete	High	PASSED	Length, date, and available languages
RU089	F006	Complete	High	PASSED	Standard Flash video controls
RU090	F006	Complete	Medium	PASSED	Some videos have download links
RU091	F006	Complete	Medium	FAILED	Some videos are available in parts; 15-minute video in a single file: <a href="http://osha.europa.eu/en/press/photos/topics/Stress">http://osha.europa.eu/en/press/photos/topics/Stress</a>
RU092	F006	Complete	Low	FAILED	Different animations in the home page loop continuously; the banner cannot be stopped
RU093	F006	Complete	Medium	PASSED	
RU100	F047	Complete	Medium	PASSED	Print version is present
RU101	F047	Complete	Medium	PASSED	
RU102	F047	Complete	Medium	PASSED	Browser-specific feature

RU103	F047	Complete	High	PASSED	
RU104	F048	Complete	High	PASSED	
RU106	F049	Complete	High	Not considered	The load of the web is at a normal pace and depends on the connection of the users.
RU107	F049	Complete	Low	Not considered	The load of the web is at a normal pace and depends on the connection of the users.
RU112	F051	Complete	High	PASSED	
RU113	F051	Complete	High	PASSED	
RU114	F065	Complete	High	Not considered	There is no splash page
RU115	F052	Complete	Medium	PASSED	Site-wide and OSH-related
RU116	F052	Complete	Medium	PASSED	
RU117	F027	Complete	High	PASSED	
RU119	F066	Complete	High	Not considered	No text-only version
RU120	F066	Complete	High	Not considered	Text version not considered
RU127	F067	Complete	High	PASSED	
RU128	F037	Complete	Medium	PASSED	
RU129	F051	Complete	Medium	PASSED	

RU130	F057	Complete	High	PASSED	
RU131	F068 & F023	Share	High	Not considered	No sessions used
RU132	F068 & F023	Share	Low	Not considered	No sessions used
RU133	F005	Complete	Medium	PASSED	
RU139	F037	Complete	High	PASSED	
RU140	F037	Complete	High	PASSED	
RU141	F032	Complete	High	PASSED	
RU142	F003	Complete	Medium	PASSED	
RU143	F006	Complete	Medium	PASSED	For some videos, streaming and download versions are available, in different formats
RU144	F006	Complete	Low	FAILED	The home page includes an embedded Youtube movie (no autoplay) and three banner animations
RU145	FH100	Complete	Medium	PASSED	Text emphasis is employed in several articles and sections
RU146	F007	Complete	High	PASSED	

<b>Total requirements</b>		<b>105</b>
<b>Total not applicable requirements :</b>		<b>11</b>
<b>Total applicable requirements :</b>		<b>94</b>
<b>Total FAILED applicable requirements:</b>		<b>13</b>
<b>Total PASSED applicable requirements:</b>		<b>81</b>
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>		<b>86%</b>



- Accessibility

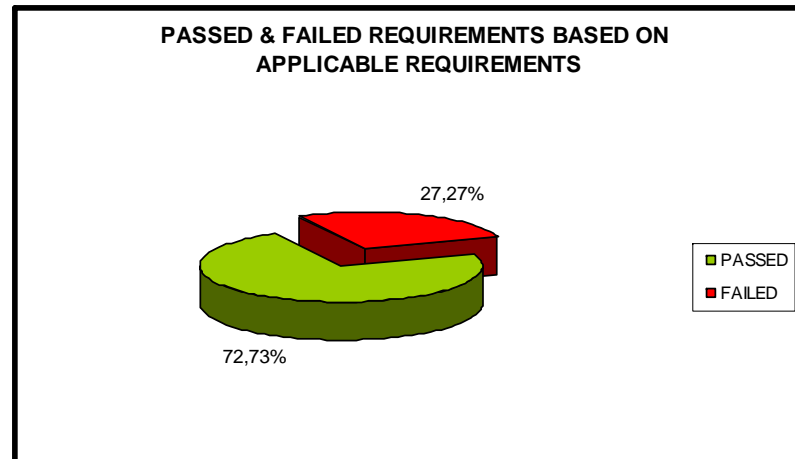
REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
RA000	F025 && F005	Share	High	PASSED	
RA001	F025 && F005	Share	High	Not considered	No image maps
RA002	F026 && F006	Share	High	FAILED	Video files are presented without transcriptions or closed-captioning
RA003	F025 && F026	Share	High	PASSED	
RA004	F025 && F026	Share	Medium	PASSED	Foreground and background colors in menus and headings have low (but enough) contrast
RA005	F025 && F026	Share	High	FAILED	W3C Validation shows XHTML, CSS and WAI errors
RA006	F025 && F026	Share	Medium	PASSED	
RA007	F025	Complete	Medium	PASSED	em units employed; additional CMS-managed CSS
RA008	F026	Complete	Medium	FAILED	H2 and H5 heading used - no H1 for website name, no intermediate H elements
RA010	F026	Complete	High	Not considered	
RA011	F026	Complete	Low	PASSED	The main language (English) is defined in the code of the page.
RA012	F025 &&	Share	Medium	PASSED	

	F013				
RA013	F026 && F013	Share	Medium	PASSED	
RA014	F026 && F013	Share	Low	Not considered	
RA015	F025 && F026	Share	High	PASSED	The home page is reordered to display news first
RA016	F026	Complete	High	Not considered	No frames used.
RA017	F026	Complete	High	PASSED	
RA018	F026	Complete	High	PASSED	
RA019	F026	Complete	High	FAILED	Banners continuously blink and move
RA020	F026	Complete	Medium	PASSED	The pages are static, apart from the animations (which remain in place)
RA021	F025 && F026	Share	Low	PASSED	
RA022	F025 && F026	Share	Low	PASSED	
RA023	F026	Complete	High	FAILED	Disabling Javascript tramples usability (language selection combobox)
RA024	F025 && F005	Share	Medium	Not considered	There is not any image map
RA025	F026	Complete	High	PASSED	
RA026	F026	Complete	High	Not considered	There are no frames

RA027	F026	Complete	Medium	PASSED	
RA028	F025 && F026	Share	Medium	PASSED	
RA029	F025 && F026	Share	Medium	PASSED	
RA030	F026	Complete	High	FAILED	When Javascript is disabled, embedded objects leave an empty space
RA031	F026	Complete	High	Not considered	There are not frames.
RA032	F026	Complete	High	PASSED	NOSCRIPT tags present
RA033	F025 && F005	Share	Low	PASSED	Only used in logo and promo images
RA034	F025 && F026	Complete	High	Not considered	The application does not use HTML standard, but XHTML
RA035	F025 && F026	Complete	Medium	PASSED	XHTML validation shows errors
RA036	F003	Medium		FAILED	Flash is not immediately usable with keyboards
RA037	F025	Medium		PASSED	
RA038	F015	Low		PASSED	Blinking elemens exist, but are slow
RA039	F025	Low		FAILED	"acronym" or "abbr" tags are not used
RA040	F025	Low		FAILED	There is not any mechanism to identify pronunciation of words or phases

RA041	F042	Medium		PASSED	

<b>Total requirements</b>		<b>41</b>
<b>Total not applicable requirements :</b>		<b>8</b>
<b>Total applicable requirements :</b>		<b>33</b>
<b>Total FAILED applicable requirements:</b>		<b>9</b>
<b>Total PASSED applicable requirements:</b>		<b>24</b>
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>		<b>73%</b>

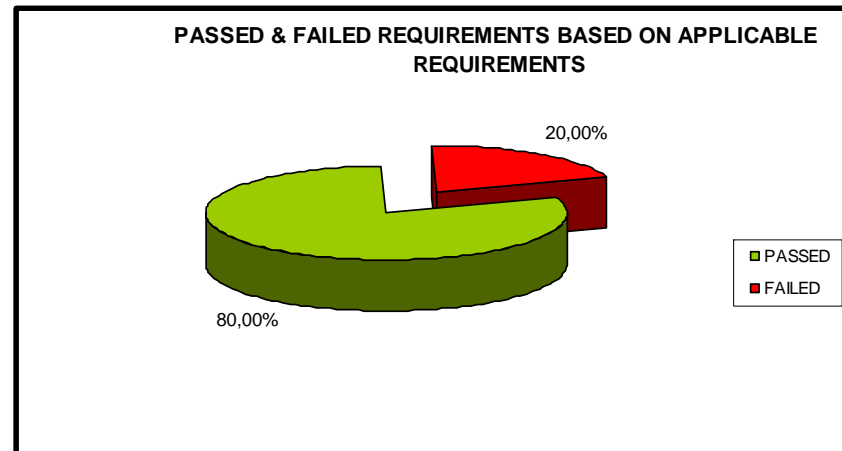


- Security

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
Rs031	F078	Complete	Medium	PASSED	
Rs039	F083	Complete	Low	PASSED	
Rs040	F083	Complete	Low	PASSED	
Rs041	F083	Complete	Medium	PASSED	
Rs055	F088	Complete	High	FAILED	The site has errors when Javascript is disabled

<b>Total requirements</b>	<b>5</b>
<b>Total not applicable requirements :</b>	<b>0</b>

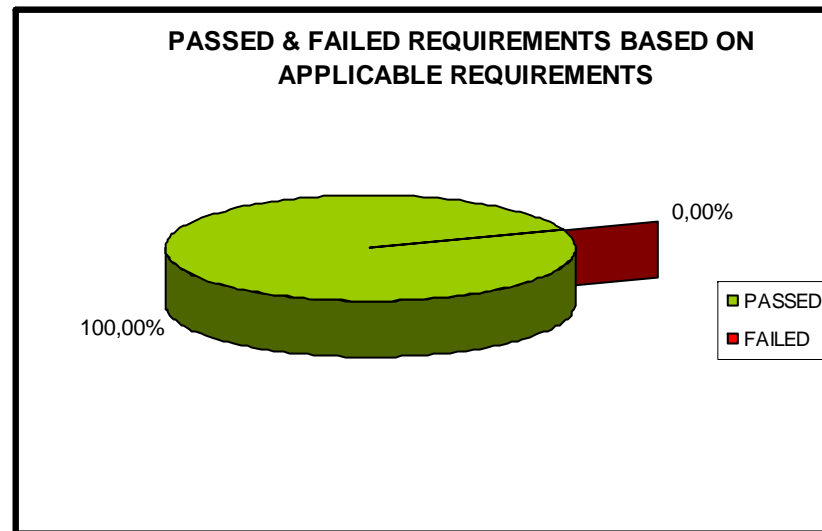
<b>Total applicable requirements :</b>	<b>5</b>
<b>Total FAILED applicable requirements:</b>	<b>1</b>
<b>Total PASSED applicable requirements:</b>	<b>4</b>
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>	<b>80,00%</b>



- **Functionality**

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
Rf001	F037	Complete	High	Not considered	There is not access to any document about the functional requirements.
Rf002	F037	Complete	Medium	Not considered	There is not information about any review of functional requirements with the client.
Rf003	F037	Complete	High	Not considered	There is not any evidence about any process to validate functional requirements.
Rf004	F023	Complete	Medium	PASSED	There is not any difference among users.
Rf007	F006	Complete	High	PASSED	
Rf008	F037	Complete	Low	Not considered	It is not possible to know, daily, if the owner of the web estimates the number of visits the site could have.
Rf009	F037	Complete	Medium	PASSED	
Rf010	F037	Complete	Medium	Not considered	It is not possible to know if the style guides are used.
Rf011	F037	Complete	Low	PASSED	
Rf012	F027	Complete	Low	PASSED	

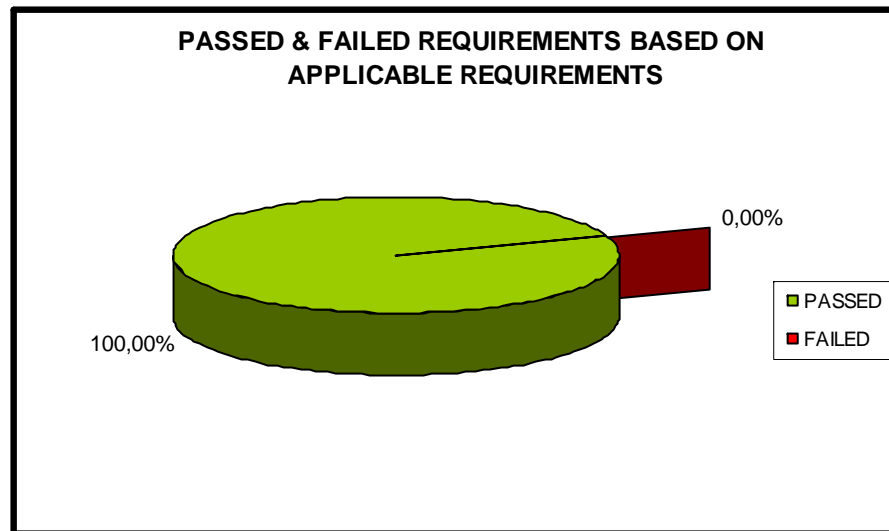
<b>Total requirements</b>				<b>10</b>
<b>Total not applicable requirements :</b>				<b>5</b>
<b>Total applicable requirements :</b>				<b>5</b>
Total FAILED applicable requirements:				0
Total PASSED applicable requirements:				5
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>				<b>100%</b>



- Architecture and Design

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
RAD001	F001	Complete	High	PASSED	PageRank is 7, main search keywords are successful, website references are made in other search results
RAD002	F003	Complete	High	Not considered	It is not possible to know if the information is saved correctly.
RAD003	F004	Complete	High	PASSED	
RAD004	F003 & F007	Share	Medium	PASSED	
RAD005	F008	Complete	Medium	PASSED	Layouts change color but keep structure and layout
RAD006	F008	Complete	High	PASSED	
RAD007	F003 & F007	Share	Medium	PASSED	
RAD008	F003	Complete	High	PASSED	
RAD009	F009	Complete	High	Not considered	There is not access to the server.
RAD010	F009	Complete	High	Not considered	There is not access to the server.
RAD011	F009	Complete	High	Not considered	There is not access to the server.
RAD012	F003	Complete	High	PASSED	

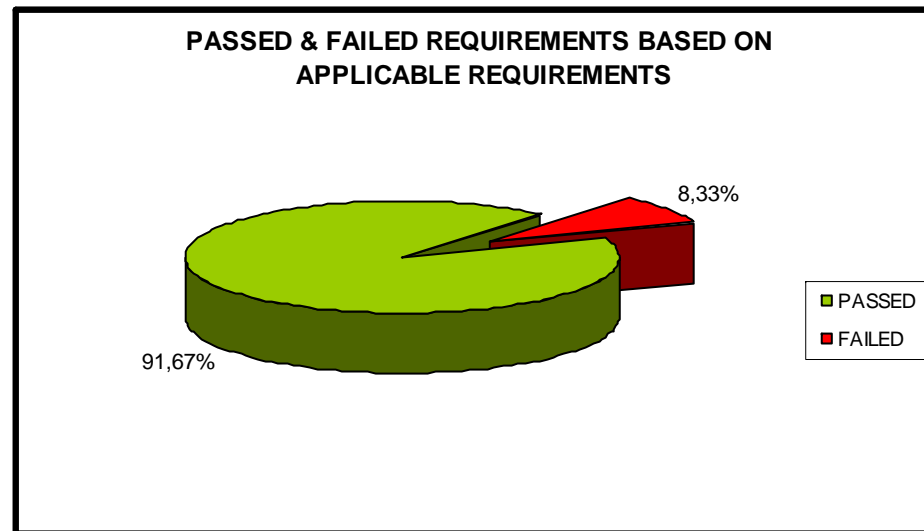
<b>Total requirements</b>	<b>12</b>
<b>Total not applicable requirements :</b>	<b>4</b>
<b>Total applicable requirements :</b>	<b>8</b>
Total FAILED applicable requirements:	0
Total PASSED applicable requirements:	8
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>	<b>100%</b>



- HTML standards

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
RH000	F007	Complete	High	PASSED	
RH001	F007	Complete	High	PASSED	
RH004	F007	Complete	Low	PASSED	
RH005	F007	Complete	Medium	PASSED	
RH006	F007	Complete	Medium	FAILED	Non-English languages are not treated uniquely; Double quotes in text are not written with html entities
RH007	F007	Complete	Medium	Not considered	
RH008	F005&F007	Share	Medium	PASSED	
RH009	F014	Complete	Medium	PASSED	
RH010	F014	Complete	Medium	PASSED	
RH011	F014	Complete	Medium	Not considered	<dl> is not used
RH012	F015	Complete	Medium	PASSED	Link hover effect used correctly
RH013	F015	Complete	Medium	PASSED	There are not sponsors for the web site.
RH100	FH100	Complete	High	PASSED	
RH111	FH100	Complete	Medium	PASSED	

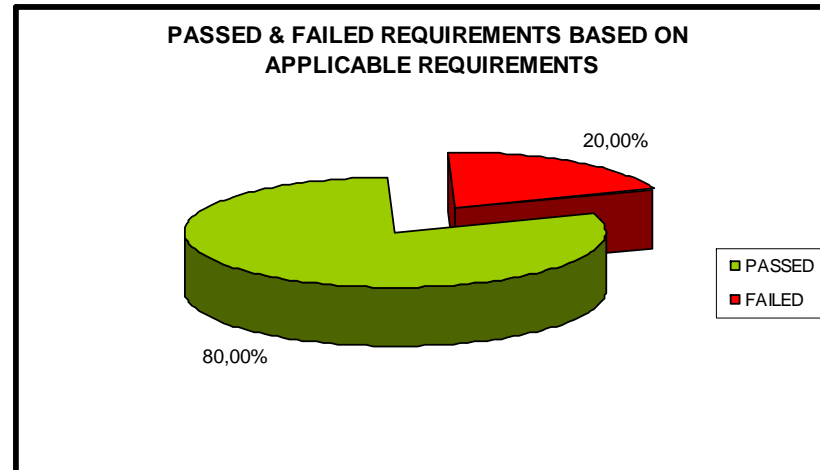
<b>Total requirements</b>	<b>14</b>
<b>Total not applicable requirements :</b>	<b>2</b>
<b>Total applicable requirements :</b>	<b>12</b>
Total FAILED applicable requirements:	1
Total PASSED applicable requirements:	11
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>	<b>92%</b>



- Other requirements

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
ROP000	F001	Complete	High	PASSED	PageRank of 7
ROC101	Fo101	Complete	High	PASSED	Fluid layout makes window size have low impact on legibility
ROC102	Fo101	Complete	Medium	FAILED	If plugins are not present, the multimedia content is hidden to the user
ROP002	F025	Complete	High	PASSED	
RCMP001	F025	Complete	High	PASSED	Well-rendered in Internet explorer 6/7/8, Mozilla Firefox 2/3, Opera Browser 9, Apple Safari/Google Chrome

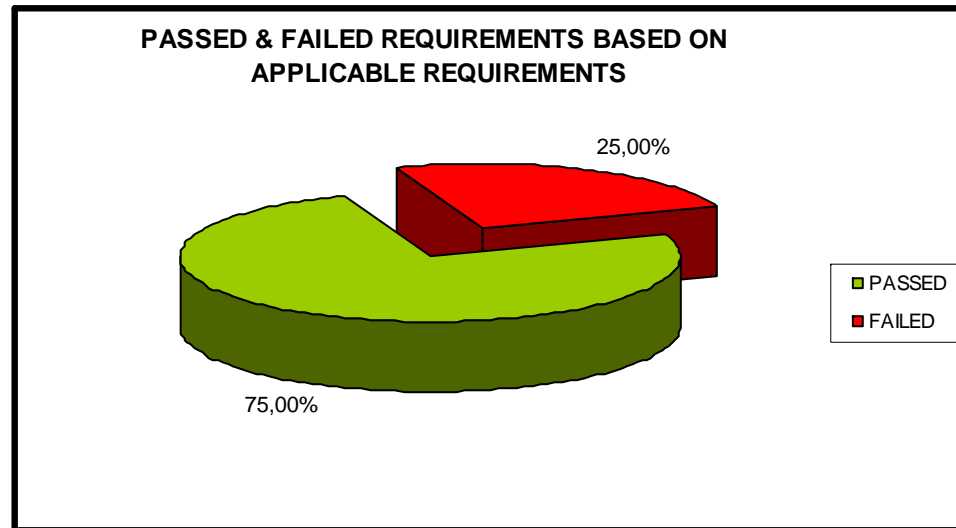
<b>Total requirements</b>	<b>5</b>
<b>Total not applicable requirements :</b>	<b>0</b>
<b>Total applicable requirements :</b>	<b>5</b>
<b>Total FAILED applicable requirements:</b>	<b>1</b>
<b>Total PASSED applicable requirements:</b>	<b>4</b>
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>	<b>80%</b>



- Capacity

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
RC000	Fc000	Complete	High	PASSED	the total number of HTML files on this page (including the main HTML file) is 1 which most browsers can multithread.
RC001	Fc000	Complete	High	FAILED	The total number of objects on this page is 30 which by their number will dominate web page delay; (reduce to 20)
RC002	Fc000	Complete	High	FAILED	The total number of images on this page is 22 , consider reducing this to a more reasonable number
RC003	Fc000	Complete	High	PASSED	The total number of external CSS files on this page is 3.
RC004	Fc000	Complete	High	FAILED	The total number of external multimedia files on this page is 4
RC005	Fc000	Complete	High	PASSED	The total size of this page is 57974 bytes. This page should load in 17.55 seconds on a 56Kbps modem.
RC006	Fc000	Complete	High	PASSED	The total number of external script files on this page is 4.
RC007	Fc000	Complete	High	PASSED	The total size of this HTML file is 11470 bytes.
RC008	Fc000	Complete	High	PASSED	The total size of all the images is 45970 bytes.
RC009	Fc000	Complete	High	PASSED	The total size of all your external scripts is 474 bytes.
RC010	Fc000	Complete	High	PASSED	The total size of your external CSS is 60 bytes.
RC011	Fc000	Complete	High	PASSED	Multimedia content is embedded

<b>Total requirements</b>	<b>12</b>
<b>Total not applicable requirements :</b>	<b>0</b>
<b>Total applicable requirements :</b>	<b>12</b>
<b>Total FAILED applicable requirements:</b>	<b>3</b>
<b>Total PASSED applicable requirements:</b>	<b>9</b>
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>	<b>75,00%</b>

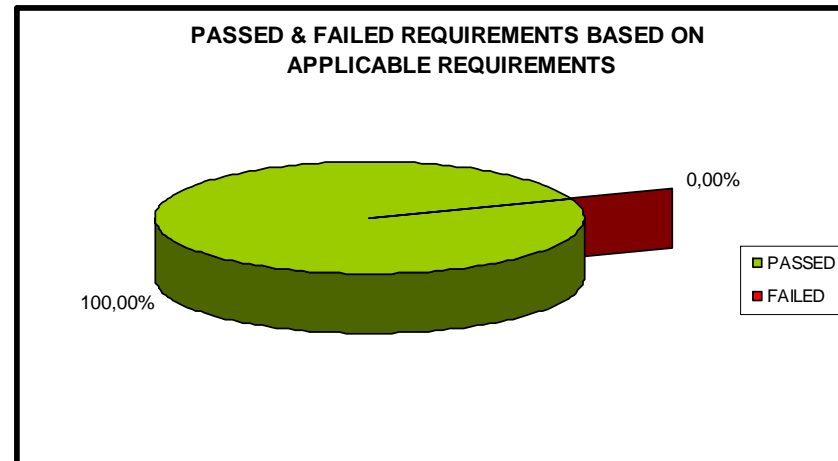


- Availability

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
RAv000	FAv000	Complete	High	PASSED	100%
RAv001	FAv000	Complete	High	PASSED	1,5 seconds

<b>Total requirements</b>	<b>2</b>
<b>Total not applicable requirements :</b>	<b>0</b>

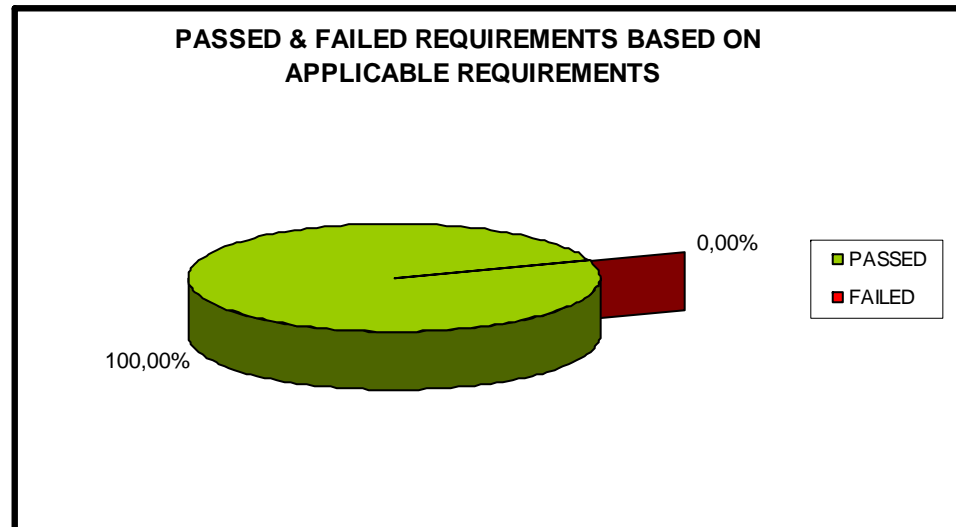
<b>Total applicable requirements :</b>	<b>2</b>
<b>Total FAILED applicable requirements:</b>	<b>0</b>
<b>Total PASSED applicable requirements:</b>	<b>2</b>
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>	<b>100,00%</b>



- Web credibility

REQUIREMENTS	ASPECTS	ASSIGNMENT	PRIORITY	ASSESSMENT	COMMENTS
RWc000	FWC000	Complete	High	PASSED	
RWc001	FWC001	Complete	Medium	PASSED	Website URL is different from European Agency for Safety and Health at Work; Agency uses OSHA-EU as acronym; OSHA-EU mimics US agency name (OSHA)
RWc002	FWC002	Complete	High	PASSED	
RWc003	FWC003	Complete	High	PASSED	
RWc004	FWC004	Complete	High	PASSED	
RWc005	FWC005	Complete	Medium	PASSED	
RWc006	FWC006	Complete	High	PASSED	
RWc007	FWC007	Complete	High	PASSED	
RWc008	FWC008	Complete	Medium	PASSED	
RWc009	FWC009	Complete	Medium	PASSED	
RWc010	FWC010	Complete	High	PASSED	Youtube used for videos; oshamedia.syslab.com used for replicated content (developer website)
RWc011	FWC011	Complete	Medium	PASSED	
RWc012	FWC012	Complete	Low	Not considered	

<b>Total requirements</b>	<b>13</b>
<b>Total not applicable requirements :</b>	<b>1</b>
<b>Total applicable requirements :</b>	<b>12</b>
<b>Total FAILED applicable requirements:</b>	<b>0</b>
<b>Total PASSED applicable requirements:</b>	<b>12</b>
<b>Fulfilment (Satisfactory requirements / Total applicable requirements):</b>	<b>100,00%</b>



## 5.2.4 RESULTS OF DEVELOPERS ANALYSIS

### 5.2.4.1 ANALYSIS BY A DESIGN PROJECT LEADER



## OSHA Website Benchmarking Exercise

### Usability

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#### The use of language

The user of the OSHA's website is able to find in general the information in their own language but there is still a 20% of the content not translated.

When it is not possible to find some information on user's own language, there is a message that alerts that the translation is not available, although the following text only appears in English:

'We apologize. The selected content is available only in another language. Would you like to view it anyway in [English](#)?'

Example: <http://osha.europa.eu/es/riskobservatory>

But there are also some cases where the content appears directly in English, without any warning: 'Practical solutions'.

#### Retrieving information. Links

The way of retrieving the information is predictable. But some links despite their formal appearance is clearly a 'link' appearance, are too long, using unusual characters (such as semi-colons or underscores), long numerals or complex phrasing that are very difficult for real people to use or exchange. They also tend to be less favored by search engines.

Wherever possible ensure web addresses are 'human readable' - i.e. they should be easy to read, remember and type.

Example:

[http://www.mol.hu/hu/a\\_molrol/sd/kozeppontban\\_az\\_ember/egeszeseg\\_es\\_munkavedelem/egeszesegvedelem](http://www.mol.hu/hu/a_molrol/sd/kozeppontban_az_ember/egeszeseg_es_munkavedelem/egeszesegvedelem)

It is recommended to use the 'Title' tag to describe the links, as it is used on the main menu links, for example.

Links should describe what they link to for the benefit of both screenreader software and search engine spiders. It is possible that you have applied a link to an image and are relying on the user having a visual browser. Note that it is possible to change the text a link points to without changing the appearance of the link. For example, 'Read more' could be a valid link, if you add a description into the 'title' attribute to the tag.

The usage of tools such as Snap Shots reveals a positive usage of web technologies that improve the user experience.

## Navigation

The navigation through the website is good and the hierarchy of pages is clearly shown. The usage of 'Breadcrumbs' allow the users to know exactly where they are.

## Printability

The website does not appear to have a specific stylesheet (CSS) for printing. Printable webpages should ideally define explicit CSS for media type 'print'.

## Metadata

All pages include at least some metadata, but some of them are missing a description meta tag. Including meta data is important as search engines use it to determine the content of your page.

The description meta data is what appears on your Google search result. Using correct meta data

## Analytics

Every page in this website is using Google Analytics v2. This is excellent and should allow for a complete analysis of visitor behavior.

## Page titles

All pages were found to use page titles appropriately.

## Accessibility

---

The website has been tested with several accessibility testing tools and the result is that there are 5 **Priority level AA** warnings (automatic checking).

This means that some improvement can be made in order to be fully WAI AA compliant. But overall these errors seem to be easy to solve.

Regarding the Colour blindness testing it seems that everything is correct.

### Accessibility test where made using the following tools:

Overall assessment by: [WebAIM](#)

WCAG 1.0 conformity checked by: [TAW](#)

Section 508 conformity checked by: [Cynthia Says](#)

Color Blindness emulated by: [Colorblind Web Page Filter](#)

## Validation

6 errors were found while checking the XHTML 1.0 Transitional and 2 more errors regarding the CSS style sheet

Markup checked by: [W3C](#) / [WDG](#) (entire site)

Style sheets checked by: [W3C](#)

**Design & Architecture**

---

The design of the website is robust and transmits in an effective way the reliability that an institutional website should have. The color palette is reduced but very effective.

The organization of the formal elements is rational and understable. The design is flexible and resizes depending on the screen resolution but this also makes that for bigger resolutions the central column is quite wide. This adds some difficulties for reading since the paragraphs are too long.

The usage of grids as size units to construct columns might help to gain more structural harmony

When using paddings for the elements as headings or images, the illusion of visual equality is enhanced.

But only the top, right and left padding should be mathematically equal. The Text bottom should be taller.



The images used all through the website are quite small comparing to the space available and in [some cases](#) the quality is poor. Adding more unique images to the different pages of the website can make it more interesting for visitors.

As mentioned before, the navigation and hierarchy of the site is well structured. The right side column containing links to the most interesting topics it's an extra help for users.

Although it may be tricky for users to have to different contact pages: one on the 'About us' section (with address information) and the other clicking on the footer (with advices and recommendations). The contact form is only accessible from the second one.

**Security**

---

No risks involving security have been detected.

**Performance**

---

The website performance has been tested several times and as average is satisfactory. But it's also recommended to check if some improvements can be done, since the website has not big images or videos to load.

**Functionality**

---

Embedding Google maps or other similar functionalities could show the upcoming events located geographically showing the presence of OSHA's activities all over EU.

It is also possible to implement small polls on the homepage to get fast responses around hot topics from website users.

**Rich media presence and Web 2.0 tools**

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Videos are a great tool to share a message in a fast and effective way. But users also may expect to know what is shown before clicking it. A small description or a header can be helpful.

The blog is also a good way to show the activity and get feedback from users.

I would recommend boosting it by adding an eye catchy banner on the right side of the main page that also contains few of the latest posts. An archive and some Tag Cloud with hot topics could be implemented as most of the blogs do: this might help to have the information well structured and easy to find.

RSS feeds allow the user to keep informed by the news that is interesting for him/her. The offer of readers available is good (Delicious / Digg /Technorati /Menéame/Yahoo/Google Reader/Netvibes)

**5.2.4.2 ANALYSIS BY AN MARKETING AND COMMUNICATION LEADER**



**OSHA Website Benchmarking Exercise**

**Usability**

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- o Aspects to be taken into account:

- Users should find the information in its own language

It seems that the content of the main items of the menu has been published in the right language. In the page over ons/about us, there is one table still in English; more about Key agency documents (top right). If you go deeper all content is English.

- Users should be able to know when this is not possible

There is one item in the menu (Practical Solutions) which stayed in English, so it was clear to me that this item was not in Dutch.

Waarnemingspost voor risico's/European Risk Observatory provides an error: not available in this language. This is contrary to the above rule.

- The way of retrieving the information should be predictable

In other words; the name of the menu item needs to correspondent with the content on the page which has been showed? Yes this happens.

- Multimedia elements should be helpful and catch the user's attention, not distract him from watching the information.

There is one video published on the homepage and to be honest it didn't catch my attention (too small). Only because I was searching for videos I did see it, otherwise it would slip my attention.

- Users should know "where they are" at any moment.

Yes the position is good visible. There are 3 positions where the visitor can see where he/she is:

1. is a "click- tree" on the left corner,
2. the menu shows where you are
3. the title of the page shows the name of the selected page

## Accessibility

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The complete web site should be compliant with WAI- AA level.

Tester has no knowledge of the WAI-AA requirements so didn't test this part.

## Design & Architecture

---

### Design & colour

The tester has no knowledge of the house style from OSHA, so he can't judge the right use of the colours. The layout and the position of the 4 blocks (header, content, menu, and advertisement) look a bit chaotic to the tester. The design is not attractive at all but it seems there was only a focus on functionality and not to attract to visitor.

There are 2 buttons beneath the menu. They are cut off (not shown properly).

### Structure and Menu

In general the homepage looks quite chaotic. It look they couldn't define which information has priority. Especially the right column (internal advertisements) attracts too much attention. Less is more! Reorganise the content on the homepage and have some discipline for publishing less on the homepage.

Some errors in the menu:

1. If I click on Perskamer (Press) the main menu disappears.
2. If I click on the logo (top left) I return to the homepage unfortunately from some pages it is in the default language (English) so the user needs to change again into his personal language.

## Performance

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The overall performance is ok from tester's location. No comments about this topic. The navigation is smooth.

## Functionality

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- Does the website include all the functionality that current techniques allow?

Different kinds of rss feed, search, upload, download, blog, video, social networking etc functionalities are offered on the website. Not all now-a-days functionalities are useful for this website.

- Should the website include further functionalities to the users?

What I'm really missing is one to one communication. Despite the amount of content the website looks quite static. It would be perfect if the website offers a virtual office where visitors are able to communicate directly with OSHA agents (at fixed times). This can be offered with a chat functionality. Those agents need to be able to guide visitors through the website as well answer content related questions. This functionality will make the website more dynamic and more attractive for visitors.

Another item I'm missing is visualising content; with images/ videos/ maps. Events are not supported with Google maps. Instructions of campaigns or new regulation can be introduced or interpreted by videos. None of this is on the website.

**Rich media presence and Web 2.0 tools**

- o Does the website include videos, animations, interactive applications, etc? Are they user-friendly? Do they contribute to improve the website and the presentation of the content?
- o Evaluate the presence and usage of web2.0 tools.

The tester noticed the following web 2.0 items on the website:

1. Youtube on the homepage; very small, difficult to see so no added value. There are more videos on the websites but you find them by accident or if you use the search functionality. It would be better if there was a multimedia chapter where all videos and other media items are stored.
2. a link to the blog: the blog has the same structure as the main website, it make it hard to recognize as a blog. The default language is English which is strange because the blog suppose to be in all languages ([http://osha.europa.eu/en/blog/google\\_translate](http://osha.europa.eu/en/blog/google_translate)). Using the translation instructions provide an error (page doesn't exist)
3. Rss feeds. The user can register for different kind of rss feeds.
4. Email information service (warning system). The user can register for different kind of emails (new warnings)

All those items have been offered in none attractive/static way. It can be more published more pro active; in other words, optimize the tone of voice!

5.2.4.3

**ANALYSIS BY A DEVELOPMENT TEAM LEADER**



**OSHA Website Benchmarking Exercise**

**Usability**

The first thing that is noticed regarding presenting the information in the user's own language is that the portal neither detects the browser's language nor remembers the user language choice for next visits. This could be nice feature in order to save some clicks in every visit.

After a specific language is chosen (other than English) and if the homepage is reviewed we can see that the navigation and almost all content is presented in the selected language. Still some headlines and the some links at the bottom of the page are still in English. There is one exception, in Romanian language the left menu is still in English.

Another thing related with the menu that should be mentioned is that it changes the number of elements between some languages (e.g. German, English and Spanish). This can be confusing for the user that expects the menu to be translated but keeping the same structure.

I haven't found any warning informing the user that the content to be accessed is not in the language of its choice though it's in English. Sometimes this can be seen because the link or the headline of the content is in English, but is not a general practice (Example: <http://osha.europa.eu/es/practical-solutions>).

There is one special section where it should be important that it is warned that it is in English: The Blog link in the home site. (Note: after continuing with the review, I noticed that there is an option to translate the Blog with a Google service. This option should be marked clearer since it is confused with Google search functionality)

One strange issue: visiting the site <http://osha.europa.eu/es/sector/horeca>, the menu is in English but the content is in Spanish.

No comment regarding predictable retrieval of information and the guidance for the users to inform them where they are. Breadcrumbs and menu highlights are implemented and are sufficient for this purpose.

Multimedia banners are not obtrusive but do not catch the expected user's attention. See Design and Architecture comments.

## **Accessibility**

---

As in previous review, many of the accessibility aspects have been taken into account throughout the whole site: access keys, alternative texts for images, table less layout or good coding style.

### **Accessibility validation**

The first exercise is to evaluate the accessibility of the Homepage. Using the tool by [www.tawdis.net](http://www.tawdis.net) we can see that there are 5 easy to solve AA level automatic detected problems. For example, keeping the levels of headings in the site or using relative units.

### **Browsers compliance**

It has been analysed the compliance with major desktop web-browsers: Firefox 3.5, Internet Explorer 8 (with compatibility mode enabled and disabled), Opera 10 and Google Chrome. No difference was detected between the four main browsers. Only one detail in IE8 with compatibility mode disabled should be highlighted: in the upper right corner of the search button is not displayed correctly.

### **Mobile browsers compliance**

Although not requested, a small test for the compliance of the portal with existing and upcoming Mobile browsers has been performed. Mozilla Fennec Beta displayed the website correctly and the browsing went smoothly. Small device simulation with Firefox showed that the main left menu is displayed after the content for all pages. A better practice would be to have it on the top. The link "Skip to Navigation" is displayed but it links with the top menu and not the main menu as expected.

### **Coding compliance**

Analysing other pages such as <http://osha.europa.eu/en/topics/msds>, similar, if not the same problems are found.

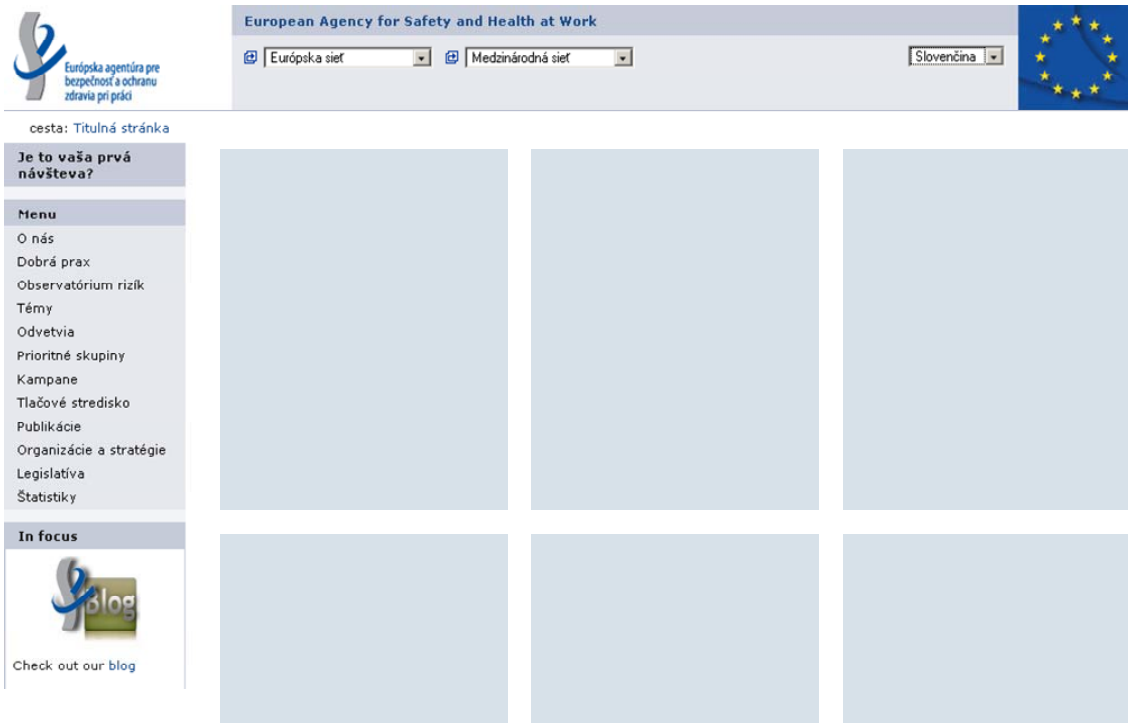
The W3C HTML validator also detected very few errors that should not be difficult to solve. Comparing these results with previous review we can see that a lot of work has been done in this topic.

## **Design & Architecture**

---

The design - colours, layout and structure- has been consistent since last review in 2007, following a widely known three column layout. This gives the user a reliable way to find information. No comment about the general design or architecture.

In the case of the homepage, a proposal to catch user's attention on new elements of information could be to merge central en right column and present this items in three columns as follows:



The important elements of the current right column would catch better the attention of the user

**Performance**

Performance testing has been repeated using an [independent tool](#) and the objective results are better than in 2007. Especially the search engine has been improved

Anyway, the performance of the web could be better. The time for a user to access each section is 1-3 seconds more than advisable (a subjective comment). Some techniques such as compressing content with Gzip have been used. Other such as using sprites instead of several images could save some request-response time. Though no in dept test have been made, server processing time seems to also affect the performance.

Using tools such as YSlow for Firefox can give hints to improve performance of the website.

**Functionality**

To answer this question a better analysis of the type of users and their information needs is required. The use of newer technologies should be only oriented to enhance user expected information or functionality.

**Rich media presence and Web 2.0 tools**

Since last review, an important section has been added to the portal: The Blog. It seems it has been available only for a few weeks, so not much can be said about it.

In my opinion it should be clear what kind of content will be shared on the blog, and for the user it should be different than the content on the OSHA website. Maybe a change in the design (colours and layout) or having a dedicated design taking out the portal navigation could help in order for the user to identify the OSH Blog as other “typical blogs”. The central part of blogs is the posts and currently, the structure and navigation takes too much attention.

Other tools such as RSS or links/bookmarking for major widget viewer (iGoogle, Netvibes) and bookmarking sharing (delicious, digg) sites are implemented. From my point of view no other services should be urgently added.

## 5.2.5 RESULTS OF OSH SUBSCRIBERS QUESTIONNAIRE

### G11.9a % distribution overall satisfaction scale (Q9a).

Q9a	No. Answers	Percentage
1	79	1,44%
2	430	7,81%
3	1855	33,70%
4	2574	46,77%
5	566	10,28%

### G11.9b % distribution satisfaction scale per benchmarking aspect (Q9b).

	No. Answers						Average
	1	2	3	4	5	N/A	
About the design of the site	68	522	1613	2392	576	333	3,56
About the accessibility and navigation	118	672	1622	2144	667	281	3,49
About the search facilities	103	599	1835	1954	591	422	3,46
About the services of the site	90	406	1263	2158	1118	469	3,76
About the usage of rich media content	83	494	1549	1776	680	922	3,54
About the usage of Web 2.0 features	75	428	1421	1246	362	1972	3,39