



Network Manager
nominated by
the European Commission



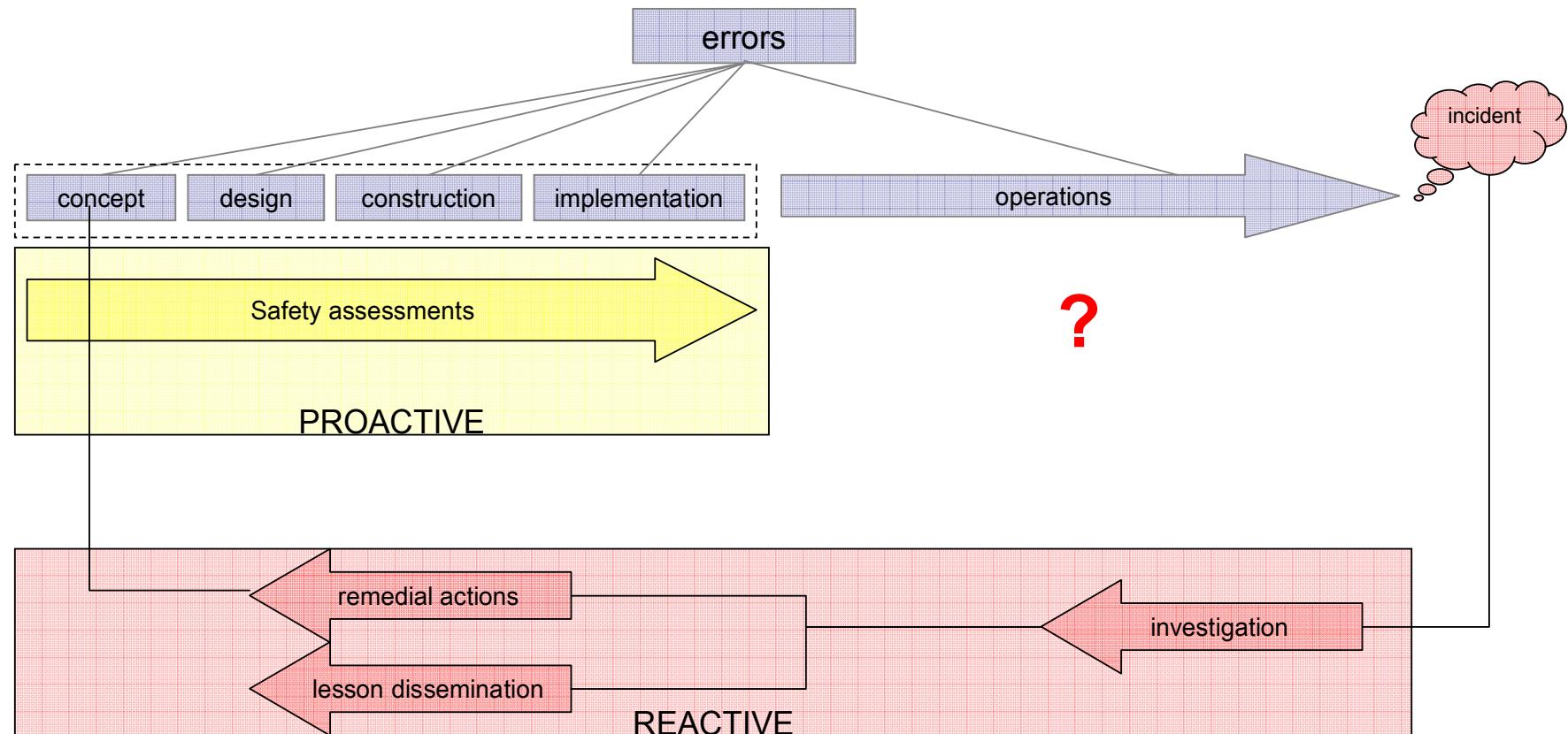
ES2 WS3 – 2012 Safety Surveys Improvement Tools for Safety Surveys

Luxembourg
21-22 Nov 2012

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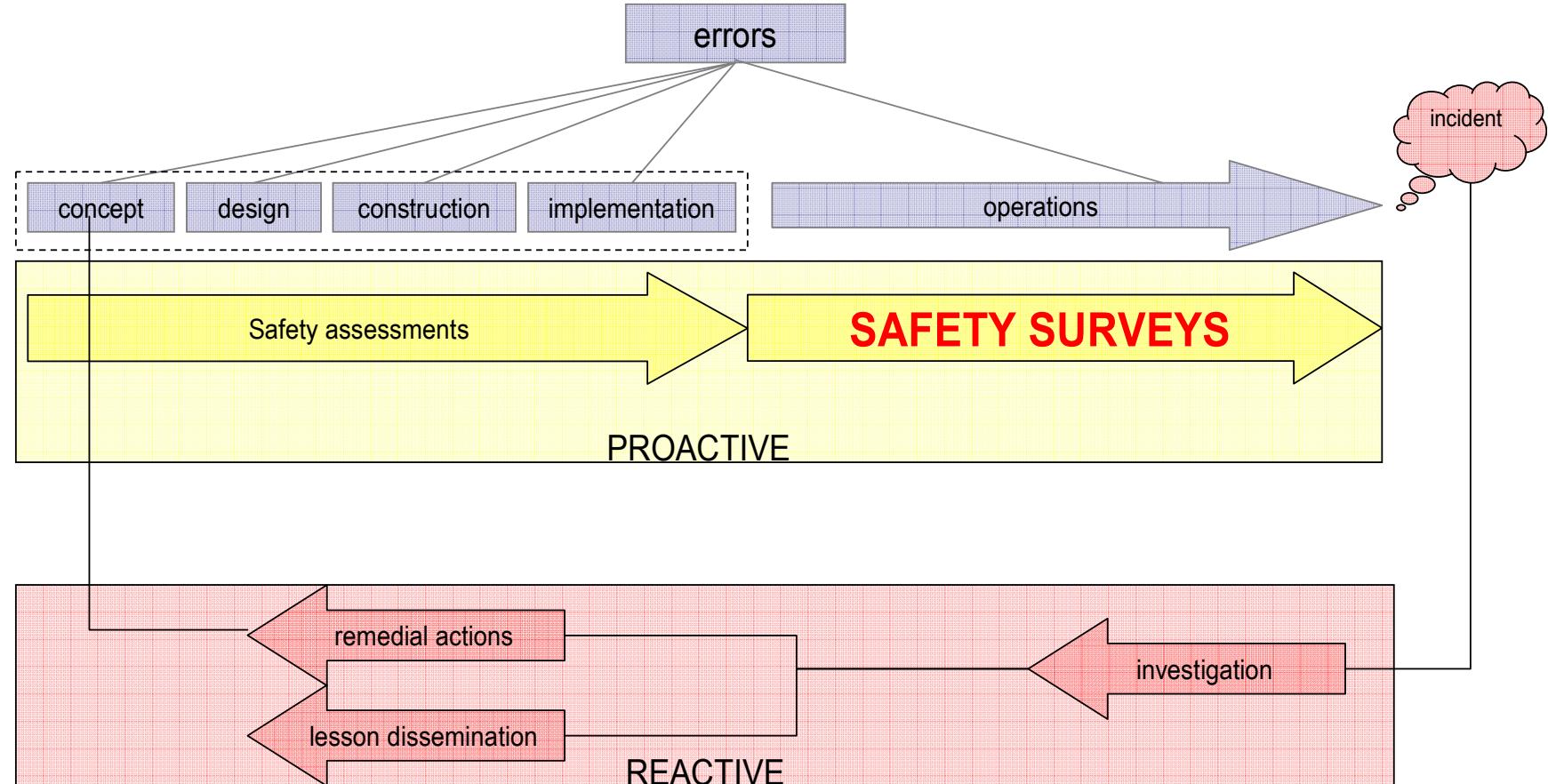


What is Safety Survey





What is Safety Survey





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Surveys defined in contrast to audits (why)



Audit

(external & internal)

Accreditation/certification

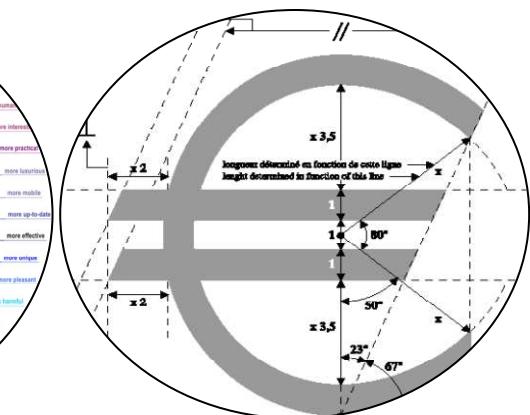
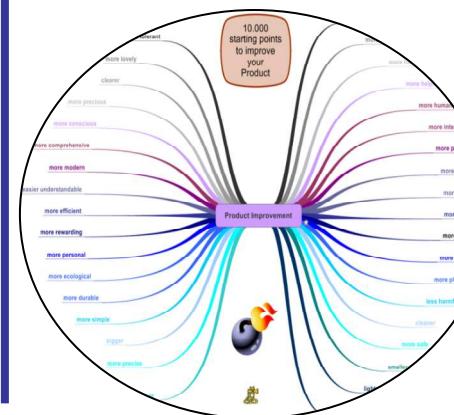


Survey

Improvement

Efficiency

Cost effectiveness





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Surveys defined in contrast to audits (requirements)

Audit
(external & internal)

Trained/experienced
Auditors



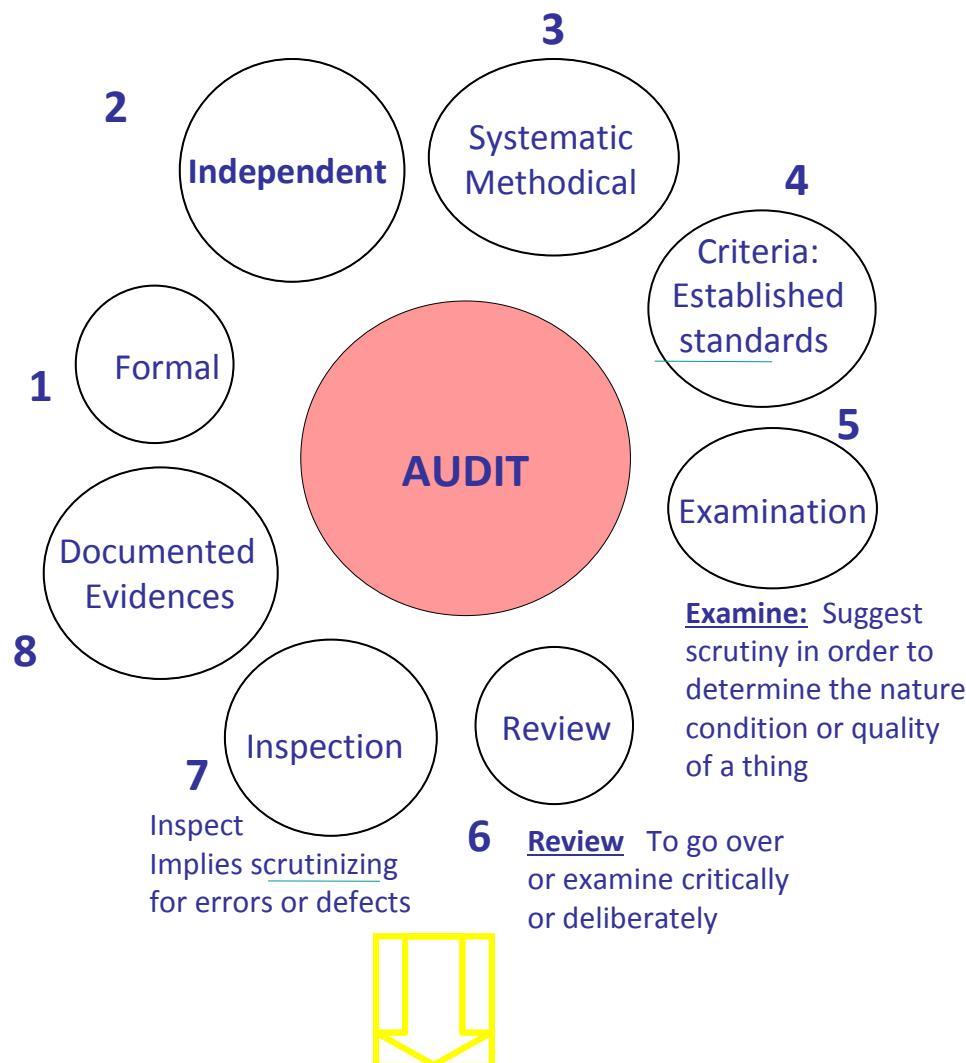
Survey

Experts of the field trained
to safety survey techniques ✓

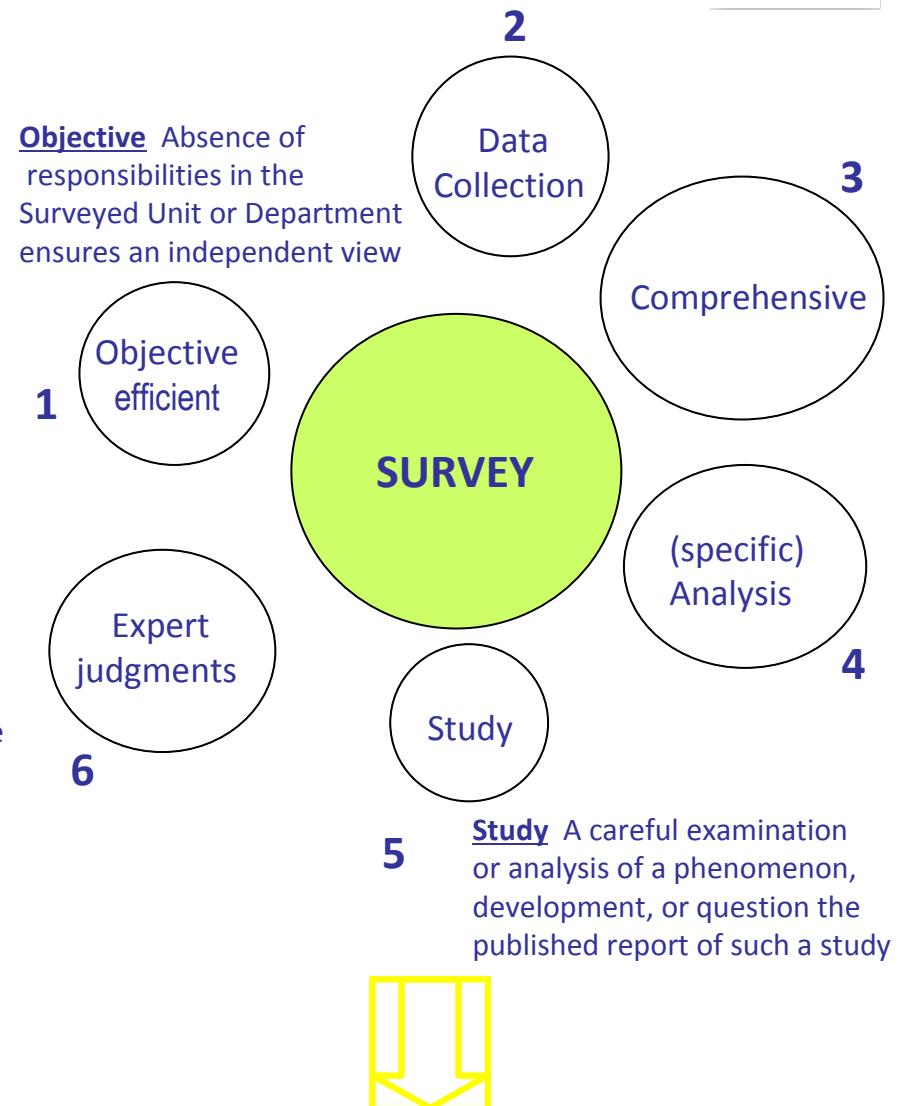




Survey / Audit



Non compliance / Non conformities

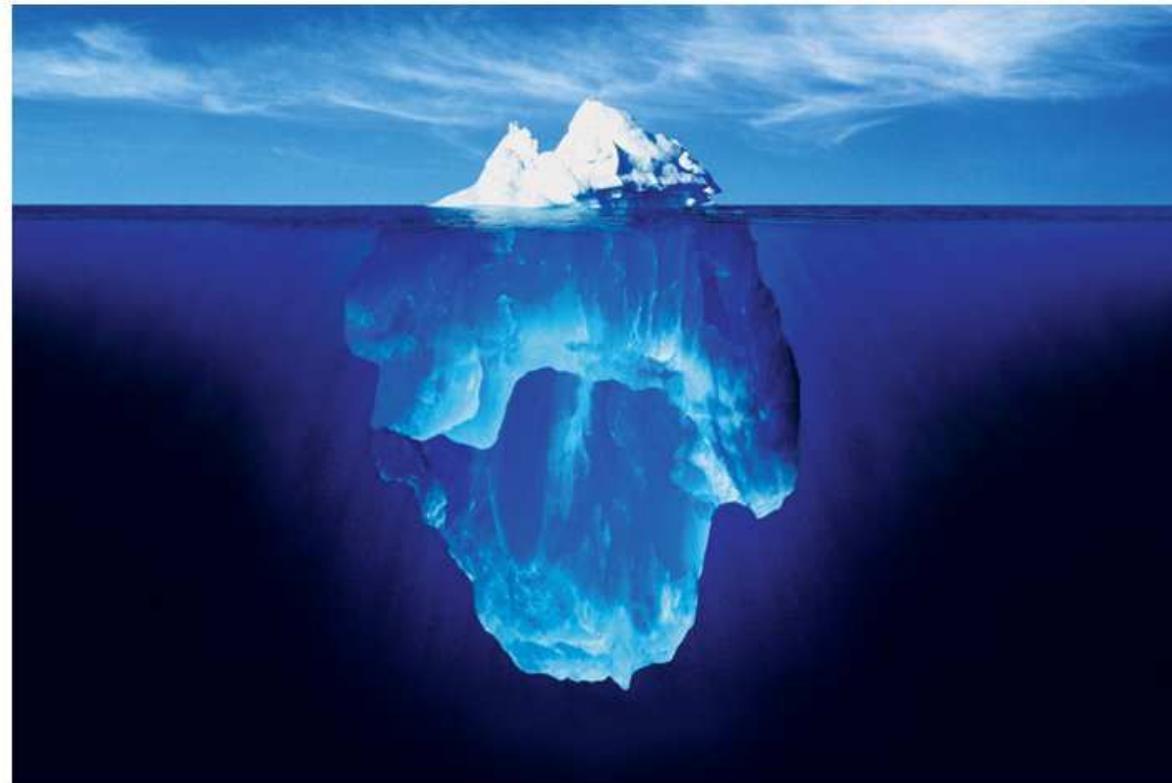


Evaluation of status



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How much do we know



External View

Internal View

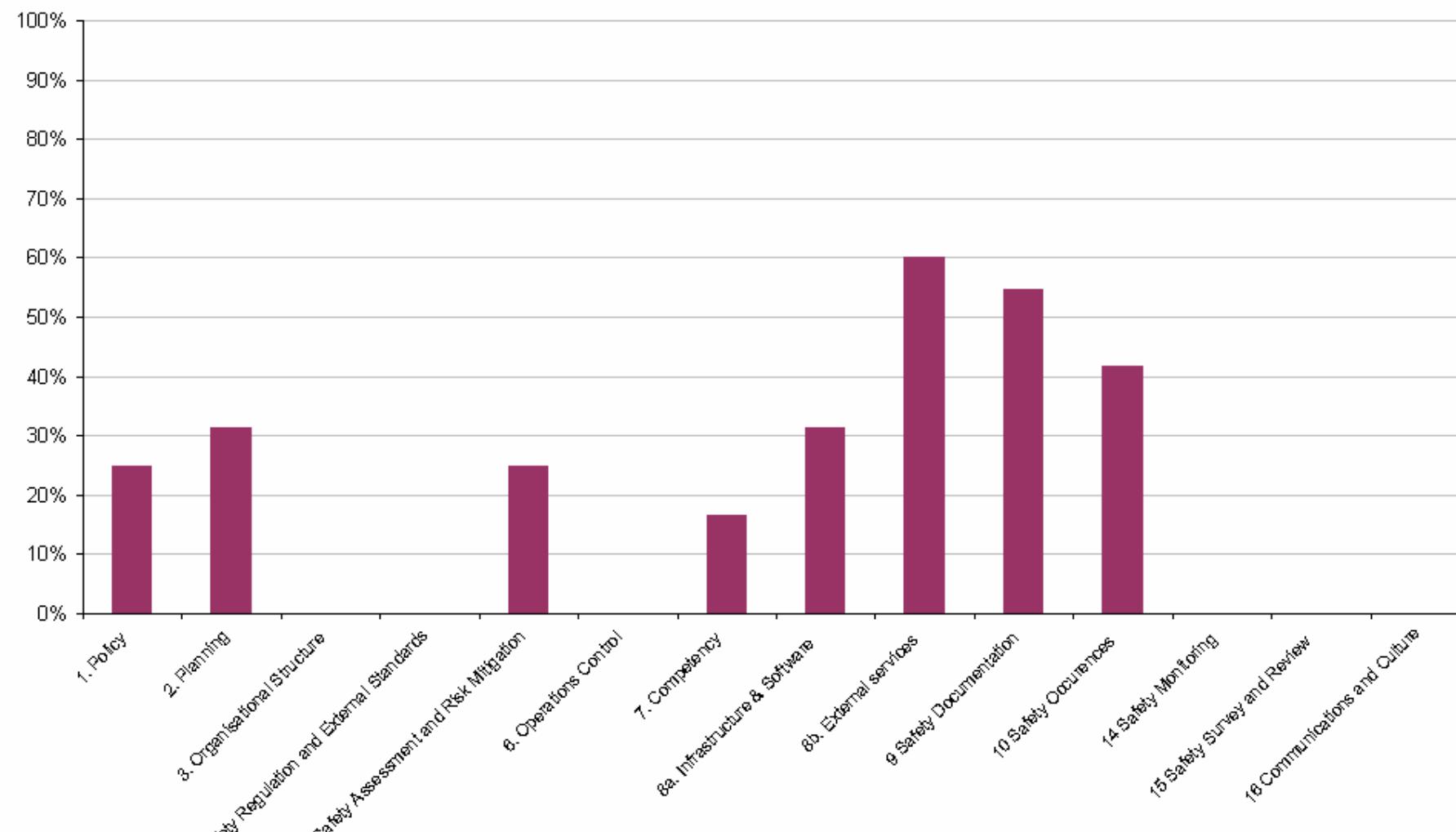
Hidden in the
system!

It is about Visibility

Then How deep are Findings

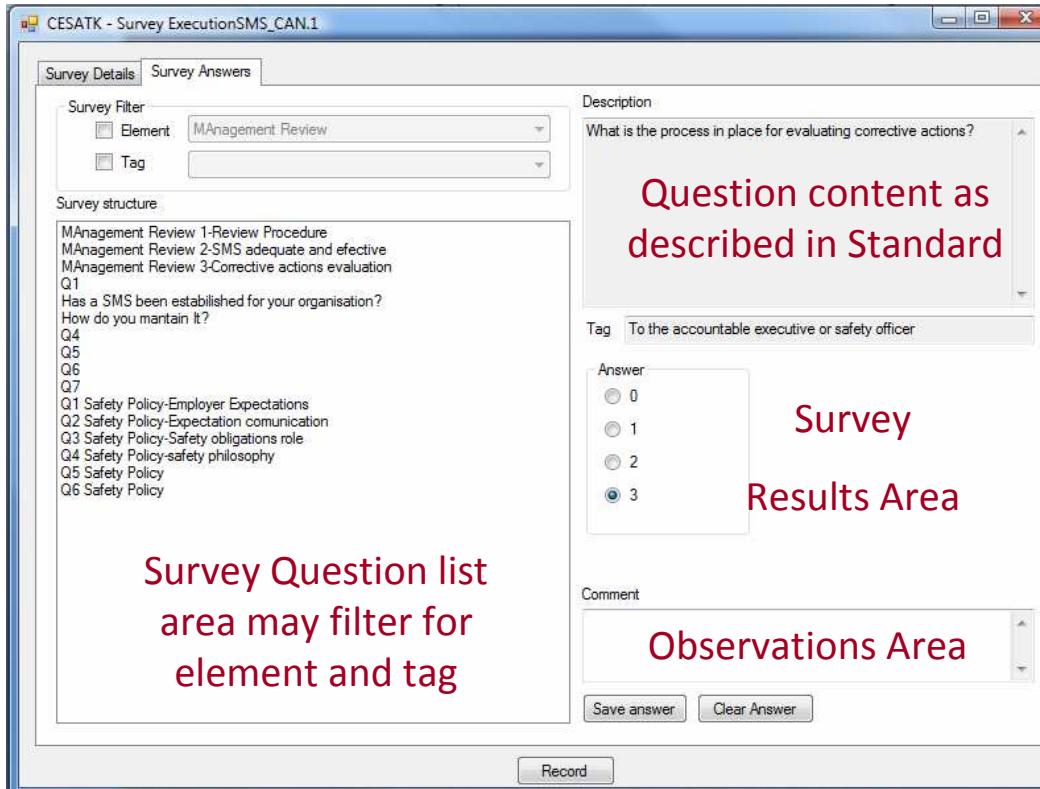


Early Days of SMS requirements fulfillment SMS Survey Protocol





Record the survey observations, results and recommendations



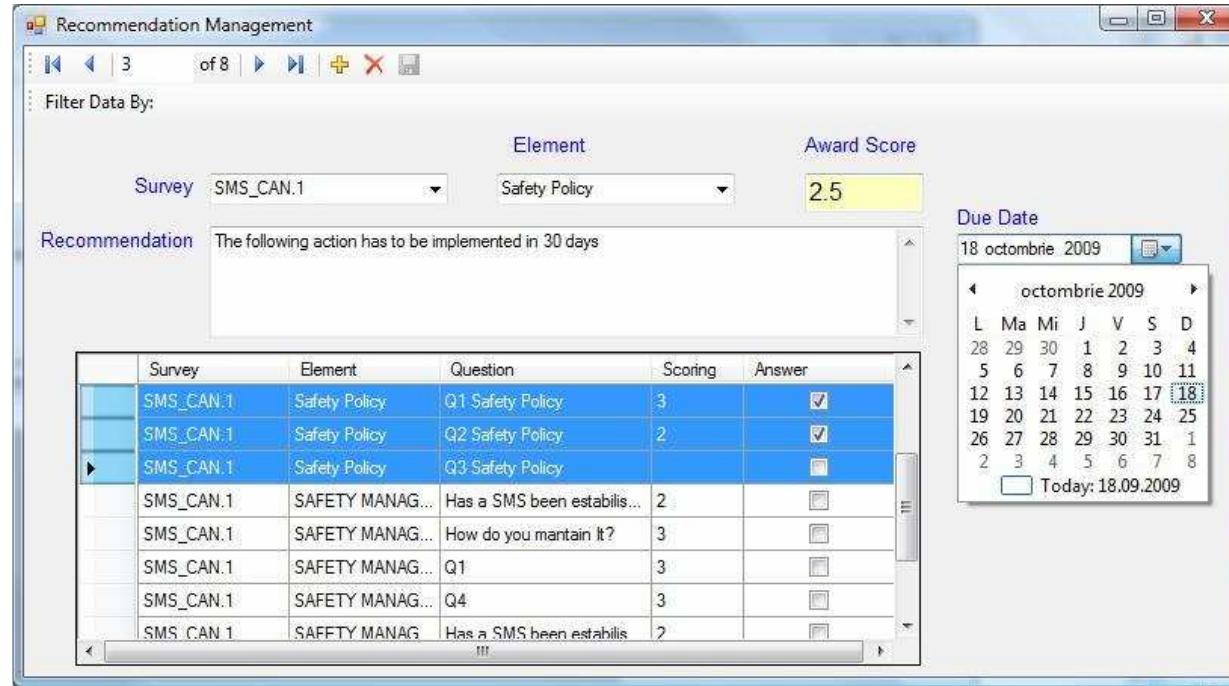
Observations and Results Recommendations

Results and Observations recorded at the survey time or later at the review time for each question

Survey results automatically mapped between sessions



Record the survey observations, results and recommendations



The screenshot shows a software application titled 'Recommendation Management'. The main interface includes a toolbar with buttons for back, forward, search, and other functions. A 'Filter Data By:' section with dropdowns for 'Survey' (SMS_CAN.1) and 'Element' (Safety Policy) is visible. A table displays survey data with columns: Survey, Element, Question, Scoring, and Answer. The 'Answer' column contains checkboxes. A sub-dialog titled 'Due Date' shows a calendar for October 2009, with the date 18 octombrie 2009 selected. The table data is as follows:

	Survey	Element	Question	Scoring	Answer
1	SMS_CAN.1	Safety Policy	Q1 Safety Policy	3	<input checked="" type="checkbox"/>
2	SMS_CAN.1	Safety Policy	Q2 Safety Policy	2	<input checked="" type="checkbox"/>
3	SMS_CAN.1	Safety Policy	Q3 Safety Policy		<input type="checkbox"/>
4	SMS_CAN.1	SAFETY MANAG...	Has a SMS been estabilis...	2	<input type="checkbox"/>
5	SMS_CAN.1	SAFETY MANAG...	How do you maintain it?	3	<input type="checkbox"/>
6	SMS_CAN.1	SAFETY MANAG...	Q1	3	<input type="checkbox"/>
7	SMS_CAN.1	SAFETY MANAG...	Q4	3	<input type="checkbox"/>
8	SMS_CAN.1	SAFETY MANAG...	Has a SMS been estabilis...	2	<input type="checkbox"/>

Observations and Results Recommendations

Recommendations recorded later at the evaluation for each Element in a distinct module

Survey questions, results and observations also included to provide consistency with scoring (Award score assignment) and follow-up actions



Surveyors trained to use the same approach in a consistent manner

CESATK-Demo Version

Standard(s) Editor Control Demo

SMS_STANDARDS

- SMS_CAN
 - SAFETY MANAGEMENT SYSTEM
 - SAFETY MANAGEMENT PLAN
 - Performance Measurement
 - Management Review
 - Safety Policy
 - Non-Punitive Safety Reporting Policy
 - Roles, Responsibility & Employee Involvement
 - Communication
 - DOCUMENTATION
 - SAFETY OVERSIGHT
 - TRAINING
 - QUALITY ASSURANCE
 - EMERGENCY PREPAREDNESS
 - (Scoring):SMS_CAN
 - Level 1
 - Level 2
 - Level 3
 - Level 4
 - Level 5

LoadData

SaveData

Export

Create/Select Standard

Update Database

Create Copy

Expand All

FPS 117,0; Avg. FPS 140,2

Name: Level 5

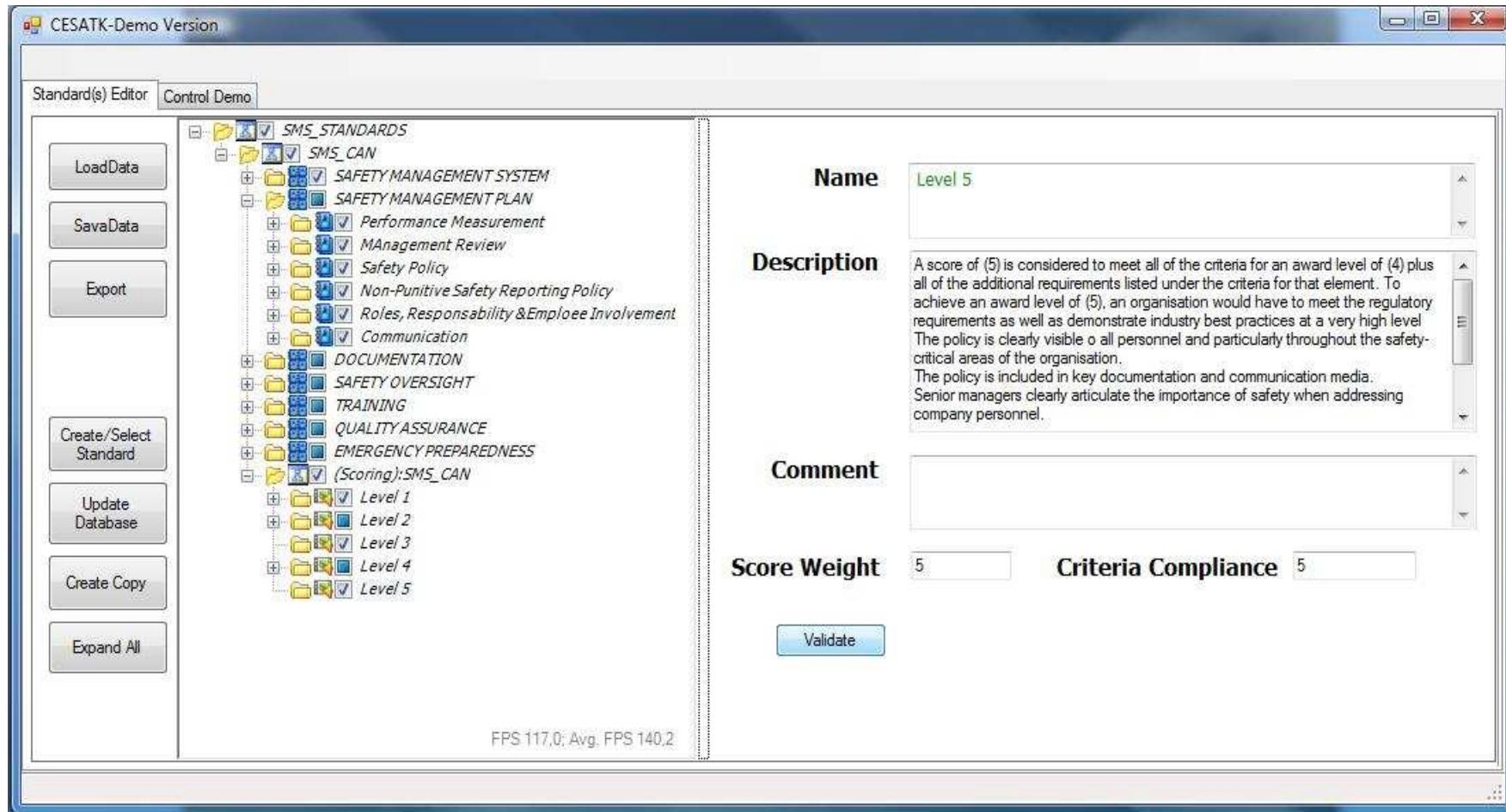
Description: A score of (5) is considered to meet all of the criteria for an award level of (4) plus all of the additional requirements listed under the criteria for that element. To achieve an award level of (5), an organisation would have to meet the regulatory requirements as well as demonstrate industry best practices at a very high level. The policy is clearly visible to all personnel and particularly throughout the safety-critical areas of the organisation. The policy is included in key documentation and communication media. Senior managers clearly articulate the importance of safety when addressing company personnel.

Comment:

Score Weight: 5

Criteria Compliance: 5

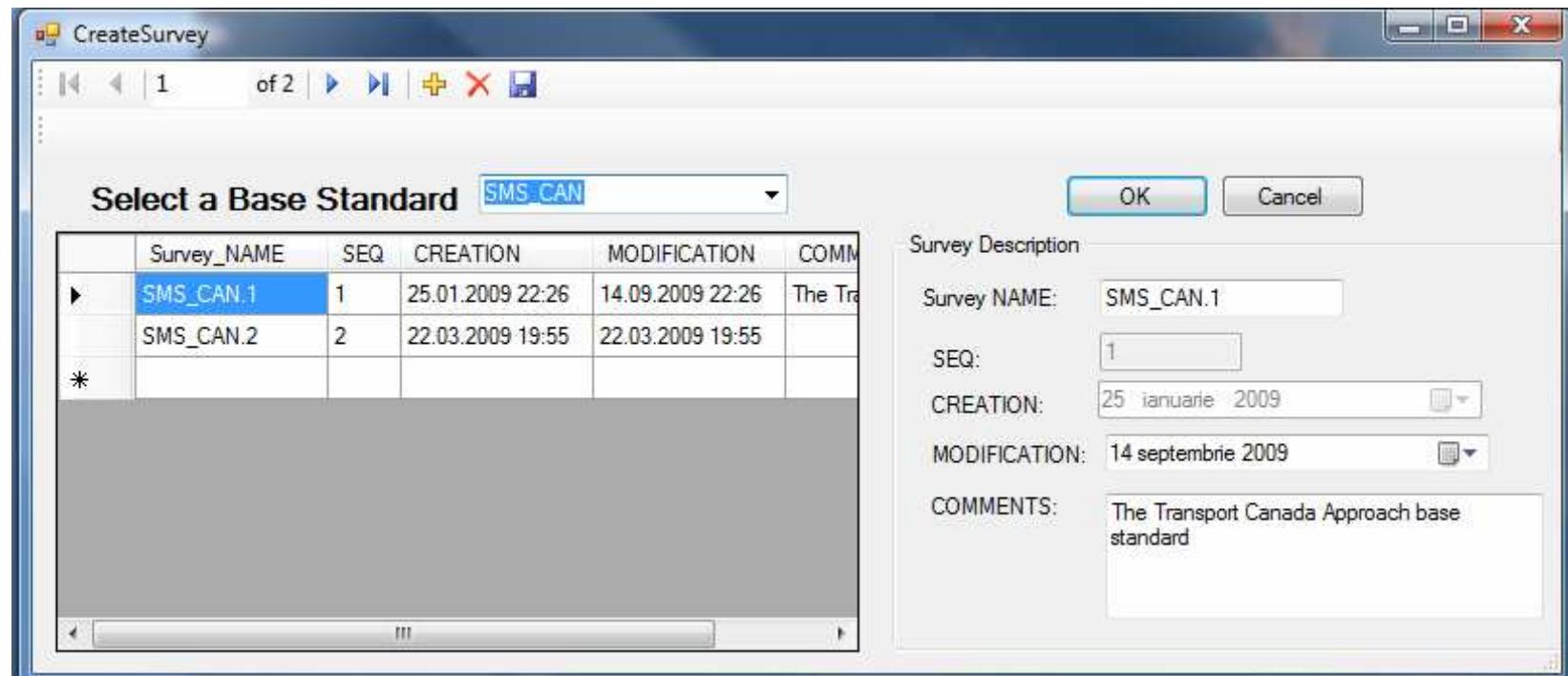
Validate



Standard Definition: Tree map organisation of Components, Elements, Questions, Criteria, Scoring in a graphical manner



Surveyors trained to use the same approach in a consistent manner



Selection of a base standard to create a **Survey Definition**.

All attributes of the standard are inherited to enable a consistent approach to survey execution



Surveyors trained to use the same approach in a consistent manner

Standard definition

Survey Definition

Survey Execution Selection

Select Prepared not executed surveys



Review executed
surveys



Surveyors trained to use the same approach in a consistent manner

CESATK - Survey ExecutionSMS_CAN.1

Survey Details	Survey Answers
General	
Standard	SMS_CAN
Parent Survey	
Tag	
Surveyed Organization	
Name	Organisation Identification
Country	European Union-
Description	ANSP Safety Survey
Tag	OPS Room and ATC Procedures
Surveyer Data	
Name	Surveyer A.
Contact	Eurocontrol
Tag	Surveyer Identification

Record

Standard definition
Survey Definition
Survey Execution Selection

Additional data sections to be
added for survey identification:
- General Data
- Target Organisation
- Surveyor identification

Multiple attributes for each
section, database self recording



Surveyors trained to use the same approach in a consistent manner

CESATK - Survey ExecutionSMS_CAN.1

Survey Details Survey Answers

Survey Filter

Element MAnagement Review

Tag

Survey structure

MAnagement Review 1-Review Procedure
MAnagement Review 2-SMS adequate and efective
MAnagement Review 3-Corrective actions evaluation
Q1
Has a SMS been established for your organisation?
How do you maintain it?
Q4
Q5
Q6
Q7
Q1 Safety Policy-Employer Expectations
Q2 Safety Policy-Expectation comunication
Q3 Safety Policy-Safety obligations role
Q4 Safety Policy-safety philosophy
Q5 Safety Policy
Q6 Safety Policy

Description
What is the process in place for evaluating corrective actions?

Tag To the accountable executive or safety officer

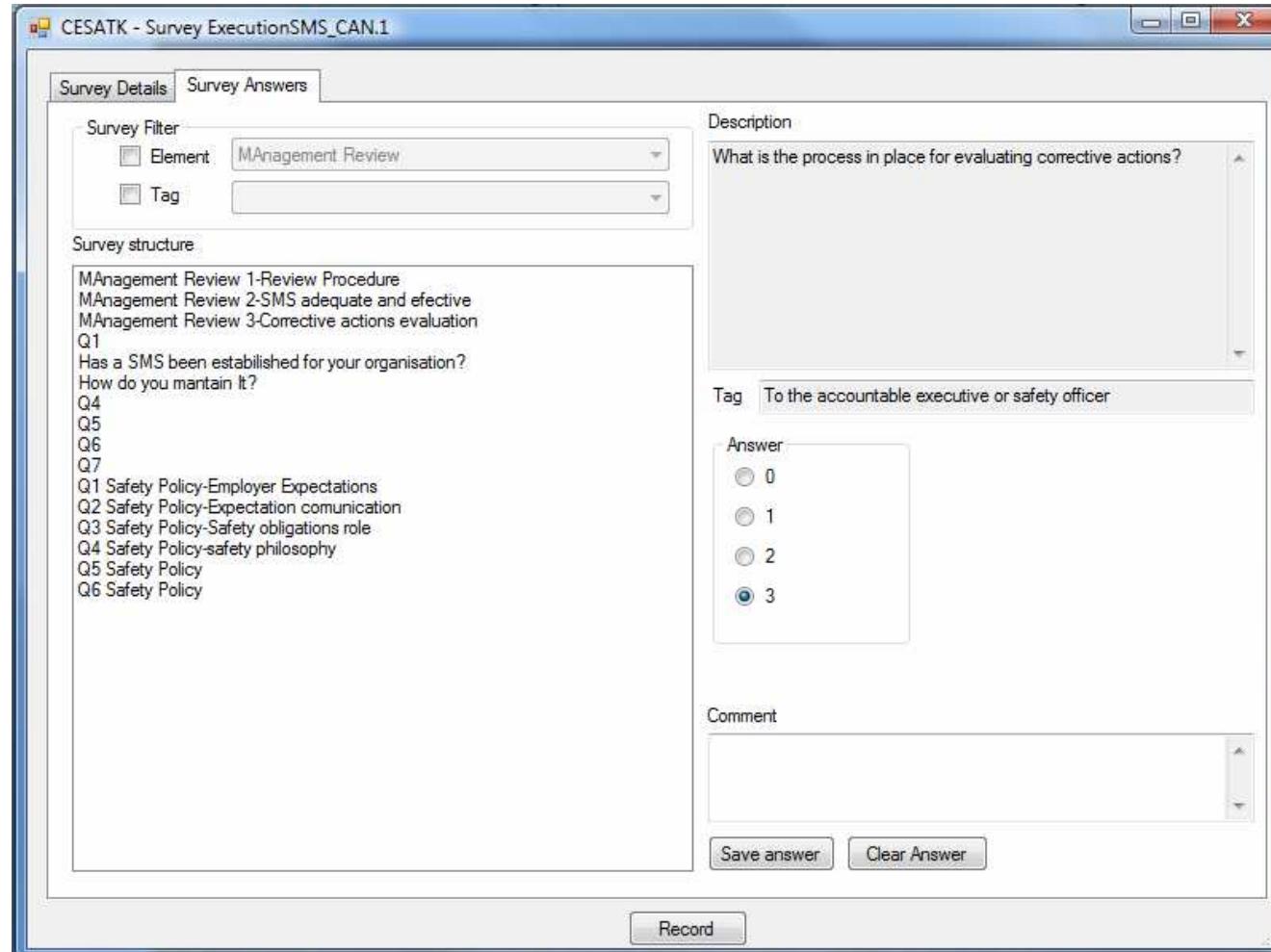
Answer

0
 1
 2
 3

Comment

Save answer Clear Answer

Record



Survey Execution: Survey questions and all necessary
information in a single form



Surveyors trained to use the same approach in a consistent manner

Reports

Select a SURVEY

Open Report Run Report

ESP.1
ESP.2
NEW_ESP
NEW_ESP.1
NEW_ESP.2
SMS_CAN.1
SMS_CAN.2

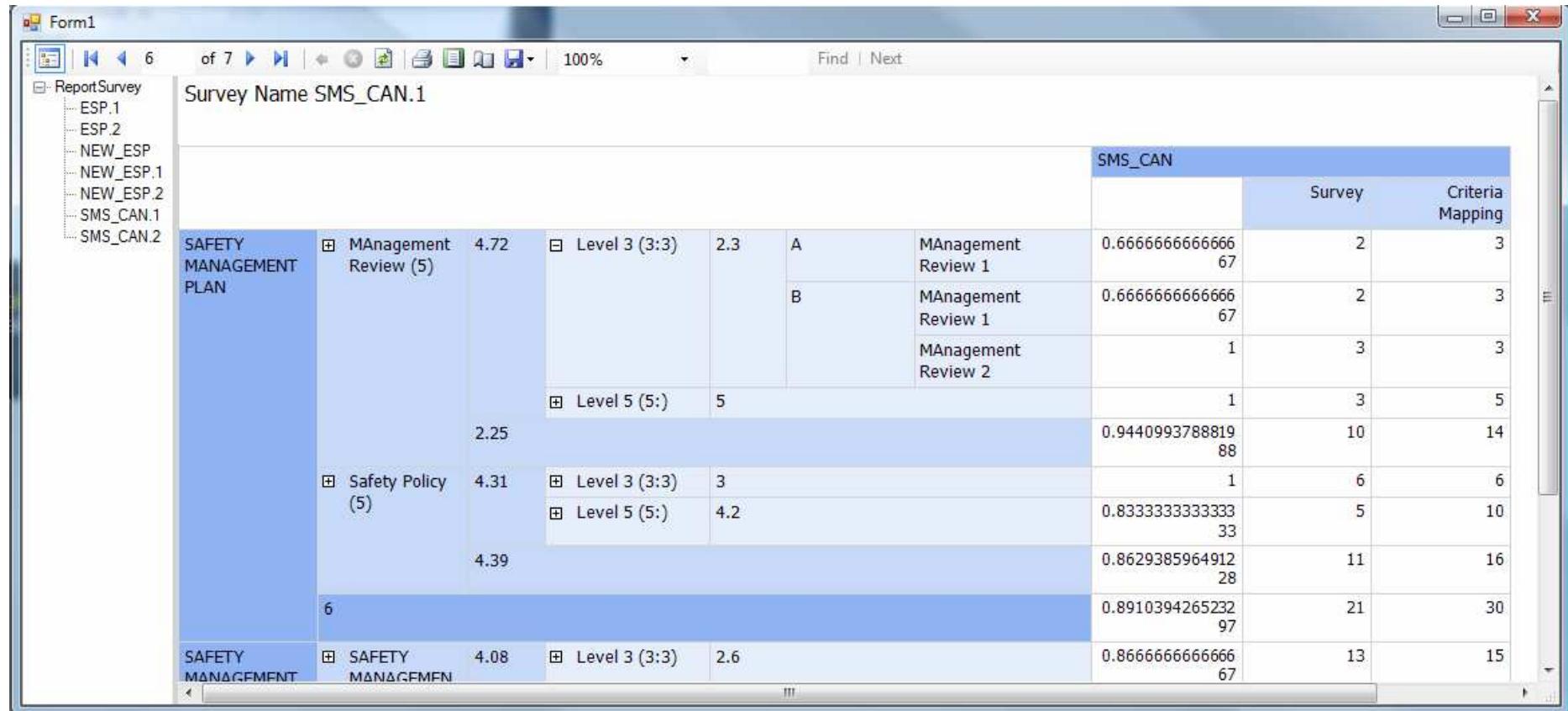
Survey	Component	Element	Survey Area/Compliance	Criteria	Question	Survey Answer	Weighting Factor	Criteria Weight	Standard Criteria Weight
ESP.1	ANSP	EA1	SA1	ANSP Question1	0.80	0.80	4	1	1
				ANSP Question2	0.80	0.80	2	1	1
				ANSP Question3	0.80	0.80	1	1	1
				ANSP Question4	0.80	0.80	2	1	1
				ANSP Question5	0.80	0.80	3	1	1
					0.80	0.80	1	1	1
					60.00	60.00	1	1	1
		EA10	SA10	ANSP Question1	0.80	0.80	3	1	1
				ANSP Question2	0.80	0.80	1	1	1
				ANSP Question3	0.80	0.80	1	1	1
				ANSP Question4	0.80	0.80	1	1	1
				ANSP Question5	0.80	0.80	1	1	1
					0.80	0.80	1	1	1
					60.00	60.00	1	1	1
		EA11	SA11	ANSP Question1	0.80	0.80	2	1	1
				ANSP Question2	0.80	0.80	1	1	1
				ANSP Question3	0.80	0.80	1	1	1
				ANSP Question4	0.80	0.80	1	1	1
				ANSP Question5	0.80	0.80	1	1	1
					0.80	0.80	1	1	1
					60.00	60.00	1	1	1

1 of 8

Reports: Dynamic tabular off-line reports stored outside database,
standard reporting language



Surveyors trained to use the same approach in a consistent manner



SMS_CAN									
		Survey		Criteria Mapping					
SAFETY MANAGEMENT PLAN	MANagement Review (5)	4.72	Level 3 (3:3)	2.3	A	MAnagement Review 1	0.6666666666666666 67	2	3
					B	MAnagement Review 1	0.6666666666666666 67	2	3
						MAnagement Review 2	1	3	3
			Level 5 (5:)	5			1	3	5
		2.25					0.944099378881988	10	14
	Safety Policy (5)	4.31	Level 3 (3:3)	3			1	6	6
			Level 5 (5:)	4.2			0.8333333333333333 33	5	10
		4.39					0.862938596491228	11	16
		6					0.891039426523297	21	30
SAFETY MANAGEMENT	SAFETY MANAGEMENT	4.08	Level 3 (3:3)	2.6			0.8666666666666666 67	13	15

Reports: Web-style predefined dynamic reports stored outside database, standard reporting language, single survey detail



Surveyors trained to use the same approach in a consistent manner

DataExporter

DataGridView

	Standard	Components	Criteria	Elements	Questions	SEC	Crit	Criter	Elerr
	SMS_C...	SAFETY MANA...	B	MAngement Review	MAngement Revie...	66	3	1	
	SMS_CAN	SAFETY MANAGEMENT PLAN	B	MAngement Review	MAngement Review 2	67	3	1	
	SMS_C...	SAFETY MANA...	B	Safety Policy	Q1 Safety Policy	7	3	3	
	SMS_CAN	SAFETY MANAGEMENT SYSTEM	B	SAFETY MANAGEME	Has a SMS been established for your organisation?	5	3	3	
	SMS_C...	SAFETY MANA...	Best	Safety Policy	Q2 Safety Policy	70	5	5	
	SMS_CAN	SAFETY MANAGEMENT PLAN	Best Practice	Safety Policy	Q3 Safety Policy	76	5	5	
	SMS_C...	SAFETY MANA...	Best...	SAFETY MANAGEME	Q5 SYSTEM	73	5	5	
	SMS_CAN	SAFETY MANAGEMENT	Best	SAFETY MANAGEME	Q6	74	5	5	

Exports

Excel
Pdf
Html

Find

Find
Find with Dialog

Print

Print Preview
Print
Show print dialog

Other

Open Settings
Refresh Grid
UI Permissions

Xml Persistence Location
This is the folder where all of your changes made to the DataGridView control will be persisted in Xml format.
C:\Users\Eduard\Documents\Visual Studio 2008\Projects\CESATK_R\CESATK_R

Exporters Location
All of your export assemblies are located in the folder shown below.
C:\Users\Eduard\Documents\Visual Studio 2008\Projects\CESATK_R\CESATK_M\CESATK\SVNRepository\CESATK

Support functions Preview, Export/Import, Print, with full user customised options



Define your own survey "standard" based on what you are going to survey : SMS, OPS Room, Equipment , etc

Flexible Standard structure to enable different Survey
types and complexity in definition

Component	Node containing other components or children element nodes
Element	Node containing question nodes and a single element scoring node
Question	Node that contains Criteria nodes
Global Scoring	Node that is unique for each standard and contains global criteria
Global criterion	Child node of global scoring and element scoring nodes which are used to compute the score and contain element criteria nodes
Element Scoring	Unique child node of an element node that contains element criteria nodes
Element criterion	Node that appears under the Global Criteria nodes



Define your own survey "standard" based on different survey structure,

CESATK-Demo Version

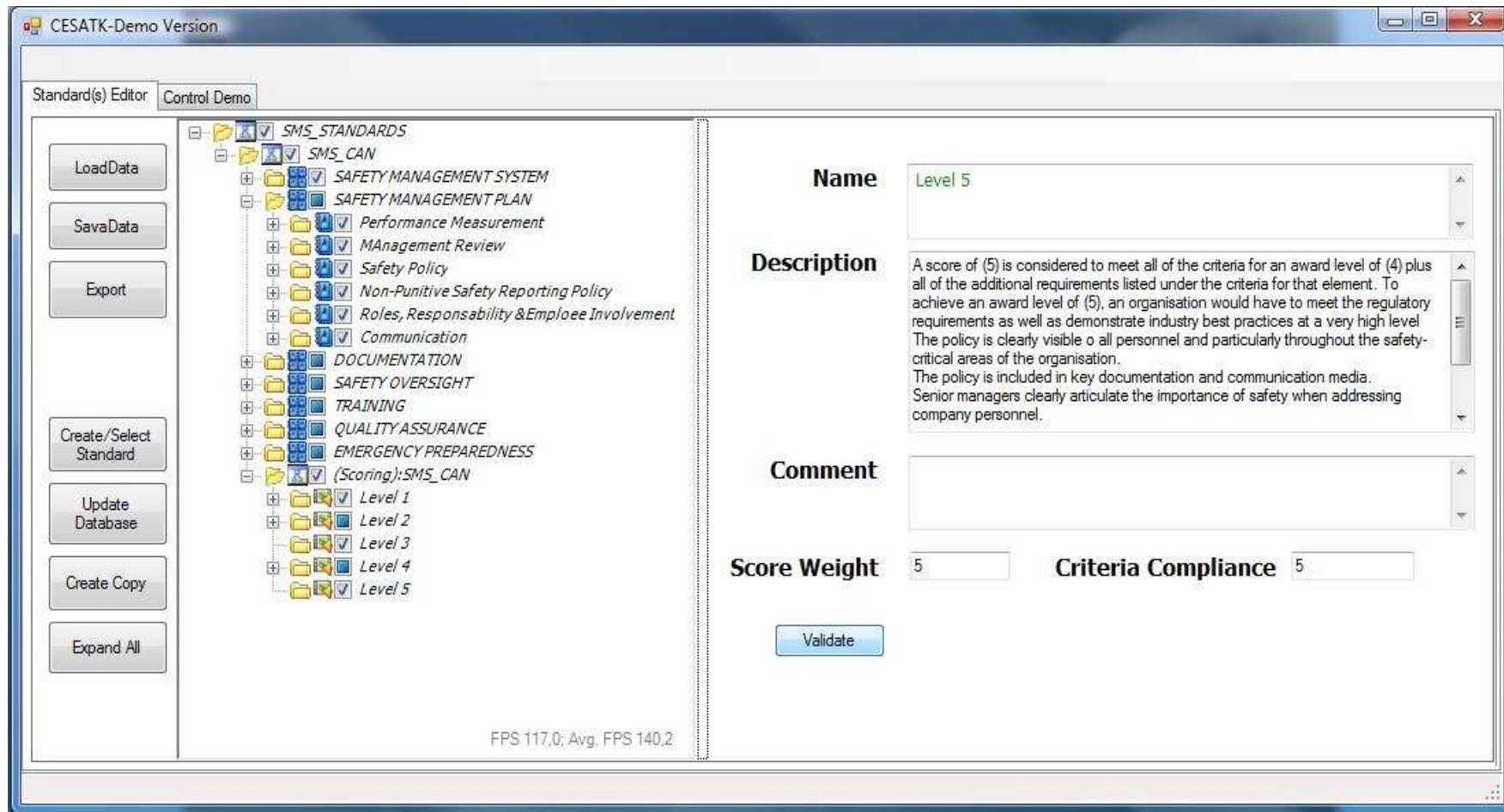
Standard(s) Editor Control Demo

LoadData
SaveData
Export
Create/Select Standard
Update Database
Create Copy
Expand All

SMS_STANDARDS
SMS_CAN
SAFETY MANAGEMENT SYSTEM
SAFETY MANAGEMENT PLAN
Performance Measurement
Management Review
Safety Policy
Non-Punitive Safety Reporting Policy
Roles, Responsibility & Employee Involvement
Communication
DOCUMENTATION
SAFETY OVERSIGHT
TRAINING
QUALITY ASSURANCE
EMERGENCY PREPAREDNESS
(Scoring):SMS_CAN
Level 1
Level 2
Level 3
Level 4
Level 5

Name: Level 5
Description: A score of (5) is considered to meet all of the criteria for an award level of (4) plus all of the additional requirements listed under the criteria for that element. To achieve an award level of (5), an organisation would have to meet the regulatory requirements as well as demonstrate industry best practices at a very high level. The policy is clearly visible to all personnel and particularly throughout the safety-critical areas of the organisation. The policy is included in key documentation and communication media. Senior managers clearly articulate the importance of safety when addressing company personnel.
Comment:
Score Weight: 5 Criteria Compliance: 5
Validate

FPS 117,0; Avg. FPS 140,2

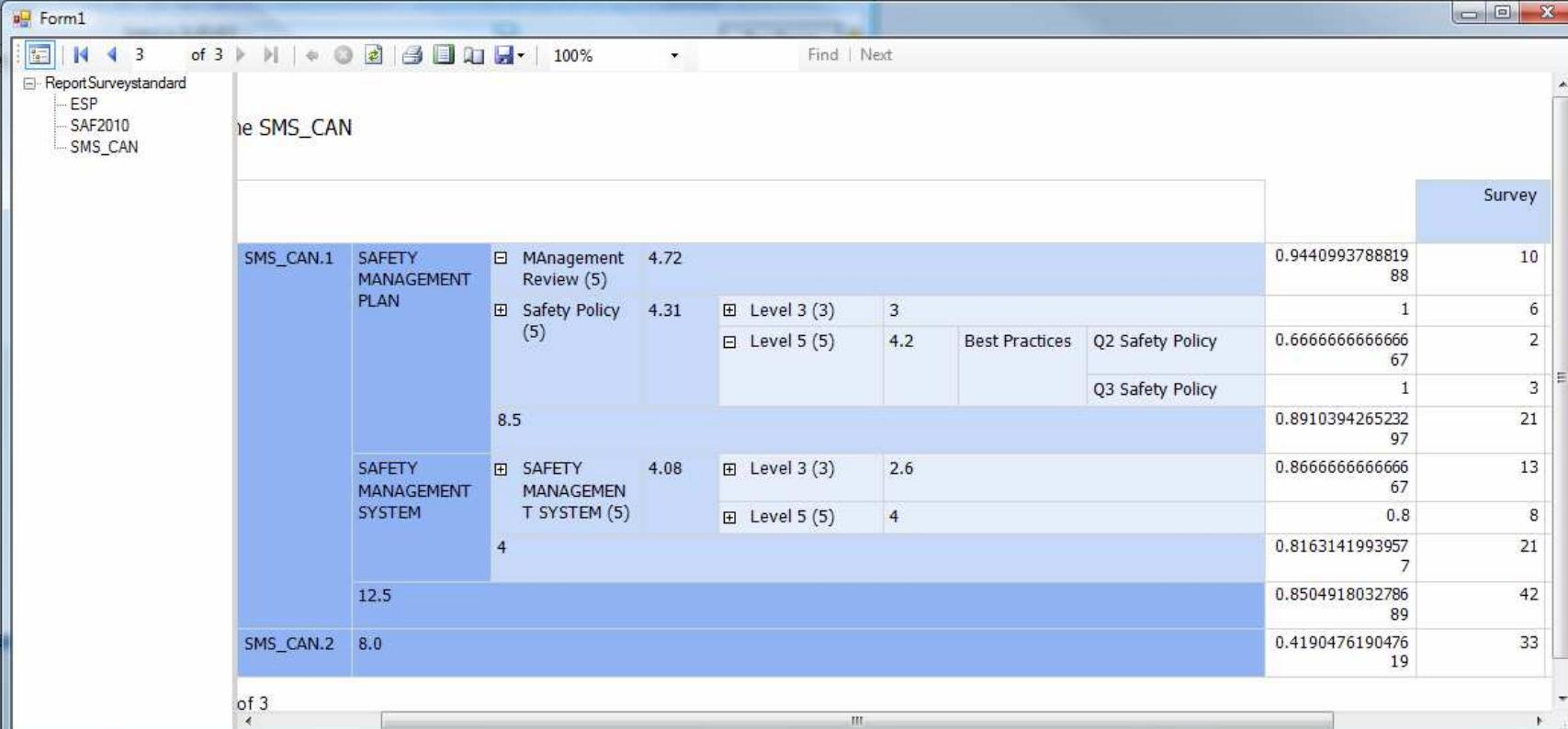


Standard Definition: Graphical mapping of database objects
identifying survey structure



Present the results so as to identify trends, good practices and less good practices

Multi-survey Reports

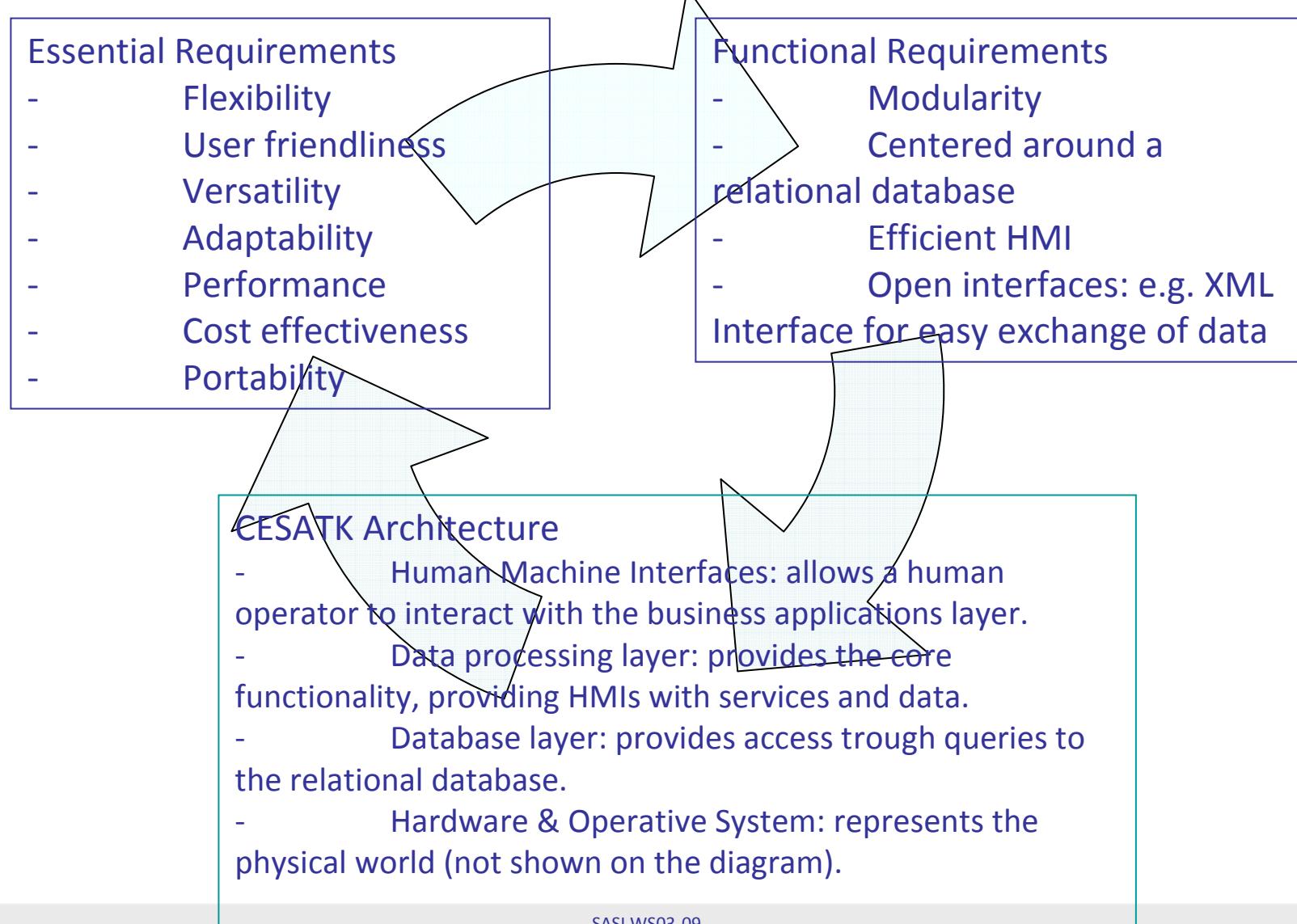


Survey									
SMS_CAN.1	SAFETY MANAGEMENT PLAN	<input type="checkbox"/> MAnagement Review (5)	4.72					0.9440993788819	10
		<input checked="" type="checkbox"/> Safety Policy (5)	4.31	<input checked="" type="checkbox"/> Level 3 (3)	3			88	88
				<input type="checkbox"/> Level 5 (5)	4.2	Best Practices	Q2 Safety Policy	1	6
							0.6666666666666666	67	67
							Q3 Safety Policy	1	3
			8.5					0.8910394265232	21
								97	97
	SAFETY MANAGEMENT SYSTEM	<input checked="" type="checkbox"/> SAFETY MANAGEMENT SYSTEM (5)	4.08	<input checked="" type="checkbox"/> Level 3 (3)	2.6			0.8666666666666666	13
				<input checked="" type="checkbox"/> Level 5 (5)	4			67	67
								0.8	8
			4					0.8163141993957	21
								7	7
								0.8504918032786	42
								89	89
SMS_CAN.2	8.0							0.4190476190476	33
								19	19

Reports: Web-style predefined dynamic reports side-by-side surveys based on standard selection for comparison automatic scoring computation



User requirements to Functional requirements mapping





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What other tools we have

- Dashboard
- What If
- DSNA – FABEC TOOL
- DEMOs



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Thank you





End of tools presentation survey

1. Questions? YES NO

2. If YES above, were questions interesting?

YES NO

3. If YES in 1 and NO in 2 above were the ANSWERS interesting?

YES NO

4. If NO in 1 above does this mean the presentation was NOT interesting?

YES NO

5. If NO in 1 above does this mean the presentation was very clear and complete?

YES NO