
Learn Safe



Overview of the LearnSafe project

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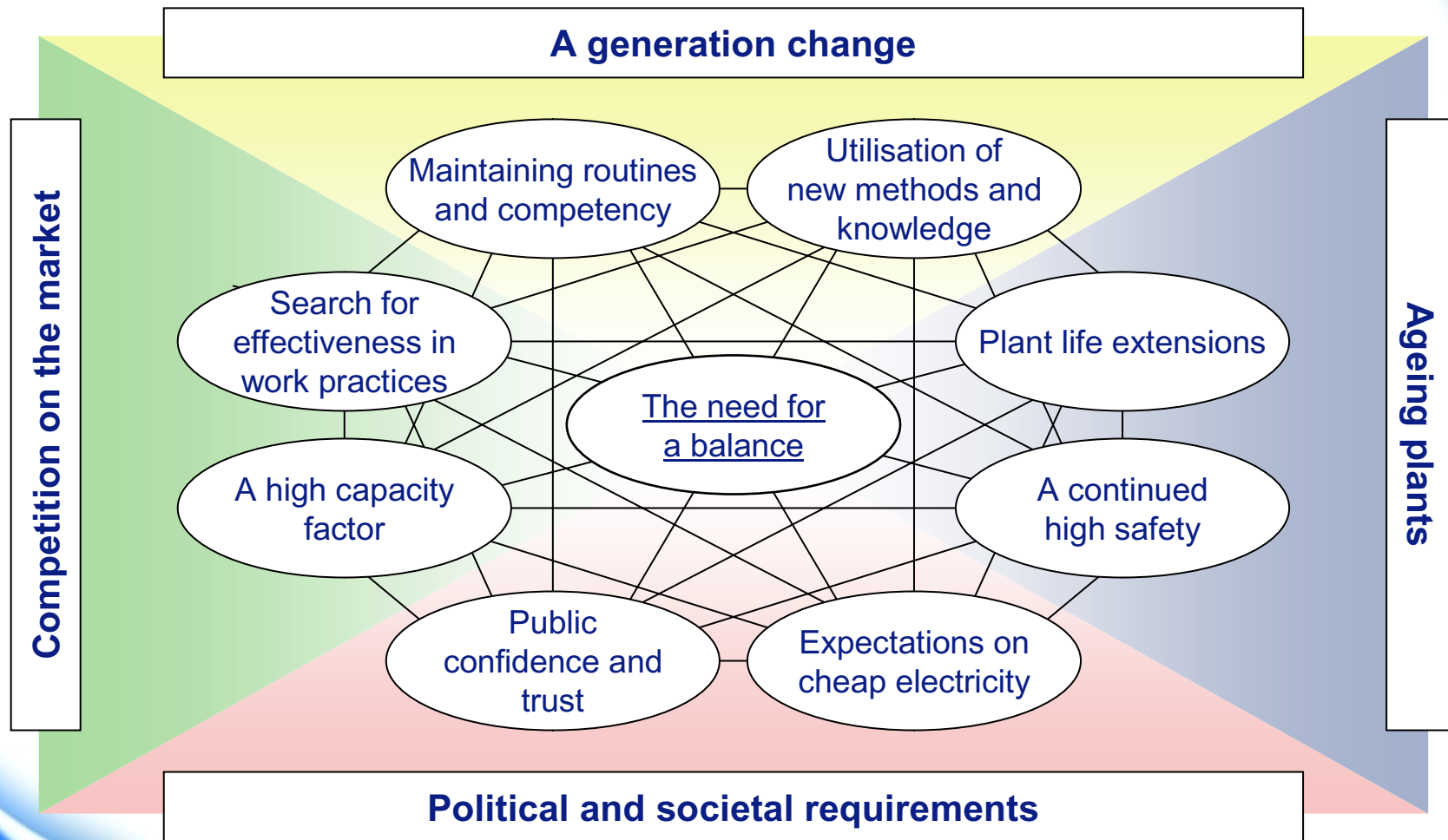
LearnSafe in a nutshell

- Objective
 - to create methods and tools for supporting the *management of change* and *organisational learning*
- Focus
 - senior managers at NPPs and power utilities who are responsible for strategic choice and resource allocation
- 5 main contractors, 9 associated contractors
- Project costs, 1,2 M€ total cost, EU support 0,5 M€
- Project start 1.11.2001, project end 30.4.2004
- Results
 - features and attributes of learning organisations
 - good practices of safety management
- An open web-site <http://www.vtt.fi/virtual/learnsafe/>
- A closed web-site <http://proxnet.vtt.fi/learnsafe/>

Project partners

- 1) VTT Industrial Systems, Espoo (FIN)
- 2) Technische Universität Berlin, (DE)
- 3) Lancaster University, Lancaster (GB)
- 4) CIEMAT, Madrid (ES)
- 5) SwedPower AB, Stockholm (SE)
- 6) UNESA, Madrid (ES)
- 7) WANO, Paris (FR)
- 8) Teollisuuden Voima Oy, Olkiluoto (FIN)
- 9) Forsmarks Kraftgrupp AB, Östhammar (SE)
- 10) E.ON Kernkraft GmbH, Grafenrheinfeld (DE)
- 11) Kernkraftwerk Krümmel GmbH, Geesthacht (DE)
- 12) British Nuclear Fuels Ltd., Warrington (GB)
- 13) OKG Aktiebolag, Oskarshamn (SE)
- 14) Ringhals AB, Väröbacka (SE)

Organisation and management; challenges for the nuclear industry



The research questions

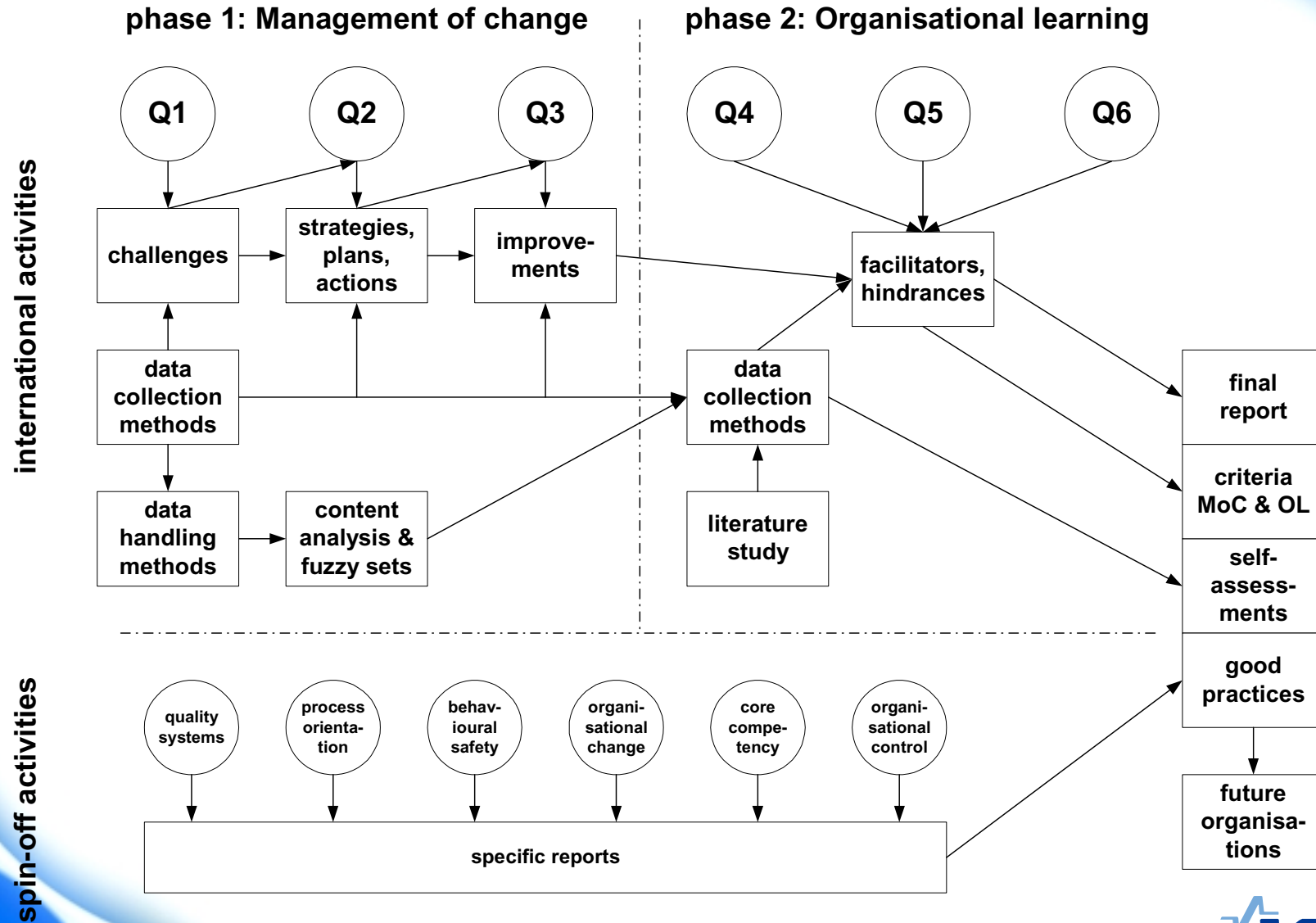
First phase of the project, *management of change*

- Q1: What are the perceived emerging challenges in the management of nuclear power plants?
- Q2: How do senior managers cope with emerging challenges in the management of nuclear power plants?
- Q3: What improvements could be made in respect to coping with emerging challenges in the management of nuclear power plants?

Second phase of the project, *learning organisations*

- Q4: What kind of features and attributes characterise learning organisations?
- Q5: What are the most common hindrances to organisational learning and how can they be removed?
- Q6: How are various company cultures and sub-cultures influencing organisational learning?

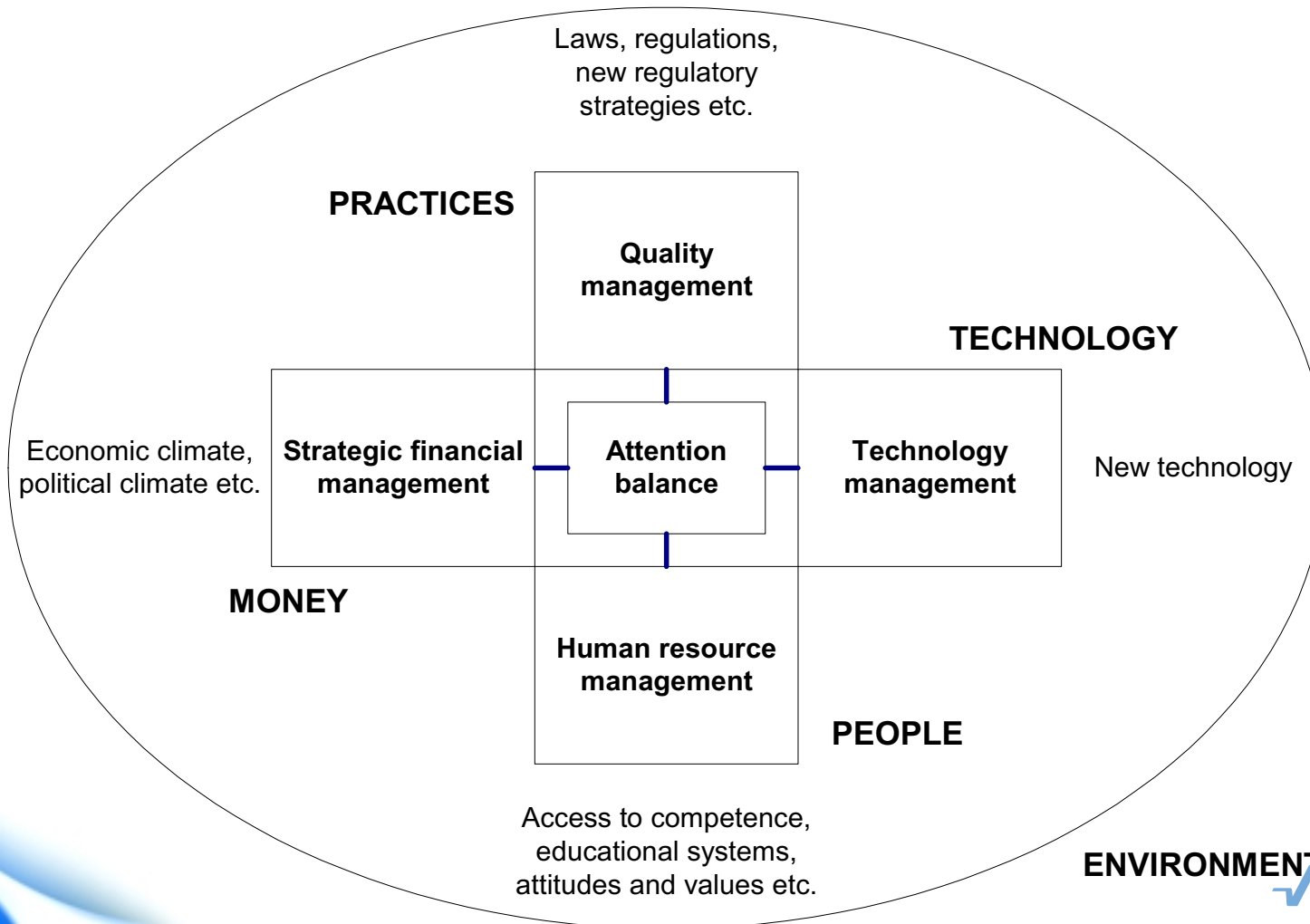
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Main achievements

- A collection of models
 - a framework of organisational factors
 - organisational descriptions
 - areas of managerial attention
- Data collection and data handling
 - challenges that the nuclear power plants see
 - facilitators and hindrances of organisational learning
 - methods and tools for structuring and sorting of statements
- Strategies, plans and actions in response to challenges
- Improvements in coping with emerging challenges at nuclear power plants
- Identification of facilitators and hindrances for organisational learning

Areas of managerial attention



Spin-off tasks with participating NPPs

- Participation in the evaluation of a Behavioural Safety Process (ULANC, BNFL).
- A benchmarking exercise on quality activities and operations management (VTT, FKA, TVO).
- A discussion and assessment of peer review activities (VTT, TUB, SWP, WANO).
- A study of the merging of two cultures in an organisational change (VTT, SWP, Ringhals).
- The path to a new organisational structure (VTT, SWP, OKG).
- The concept of core competency (VTT, FKA, TVO).
- A definition and evaluation of organisational controllability (VTT, SWP, Ringhals).

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Quality activities, operations management, process orientation (VTT, FKA, TVO)

- A large similarity in approaches, but also some differences
- Clear reasons for selecting these areas for the benchmarking
- Some observations from the study
 - bring observations from audits into concrete changes of practices
 - define the required quality level within different activities
 - operations decision structured at three levels
 - formal communications structure for operational decisions
 - a definition of processes and a level for describing them
 - responsibility for common practices at a multi-unit site
 - combination of features from line and matrix organisations
 - maintaining the systems of instructions
 - requisition and supplier systems
 - benefits of a benchmarking exercise

The peer review activities of WANO

- One visit at WANO in June 2002 and a second in January 2003
- An impressive breadth and depth of the programmes
- Notes connected to the peer review programme
 - how do peer reviews differ
 - underlying models of performance
 - practical arrangements of the peer reviews
 - challenges in a peer review
 - creating trust and confidence in the process
 - collection and documentation of observations
 - overcoming cultural bias
 - the need to see the whole picture
 - transferring insights from the review to the host plant
 - improving the peer reviews

Organisational changes at OKG and Ringhals

- Merging of organisational cultures at Ringhals and Barsebäck
- The new organisational structure at OKG
- A discussion of organisational controllability
- Observations concerning organisational change
 - how to set the stage (objectives, basic principles to be applied)
 - cultural differences between sites and units are real
 - there are both threats and opportunities in an organisational change
 - plan the process well, but everything cannot be defined in advance
 - communication before, during and after the change is important
 - it takes a long time before a new organisation is in place
 - organisational changes seem to be more expensive than expected
 - the control from above vs. emergent organisational structures

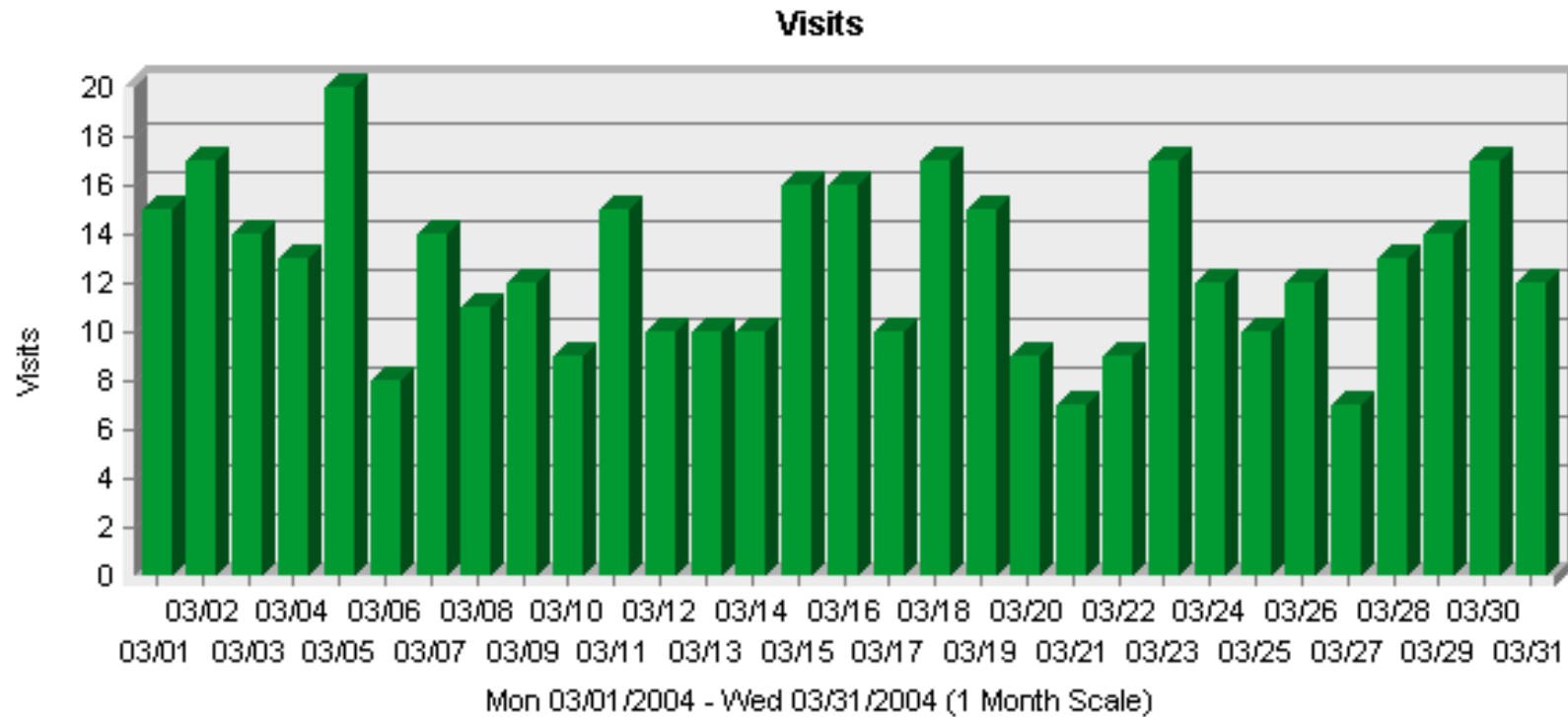
Discussions of core competency at FKA and TVO

- Competency issues were touched upon in the earlier benchmark
- A forthcoming generation change in both organisations
- Some observations from the study
 - the concept of *core competency* is highly relevant for LearnSafe
 - competency surveys have been made and integrated into a system for human resource management
 - discussions of different dimensions of competency
 - decisions regarding competency
 - buy or produce
 - physical and organisational location
 - an important part of the process of strategic planning
 - assessment and development processes for competency should be integrated in the management and quality system

Exploitation of project results

- Discussions during data collection
- Two web-sites for the dissemination of early results
- Working papers, reports, seminars, presentations
- Spin-off tasks with participating NPPs
- The Technological Implementation Plan
 - Community added value and contribution to EU policies
 - Contribution to Community social objectives
 - Expected project impact
 - Description of the result(s), one form per result
 - Description of the intentions by each partner

The open web-site



Web-site statistics, Totally 2002-2004

Period	Totally
Total hits	16595
Page views	6002
Visits	5926
Unique visitors	3777
Downloaded files	8580

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Conclusions

- There have been some differences in the implementation as compared with the project described in the DoW
- LearnSafe has been a successful project
- Scientific achievements of the project
 - LearnSafe has been an actions research project
 - by necessity it was given a pragmatic touch
 - a combination of empirical and theoretical parts
 - interactions between researchers and practitioners
 - multi-national interactions