

SMS Cost Workshop

Cost Model for the Development,
Maintenance and Day-to-day
Operation of a SMS

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Cost model

Pilot validation

Part III

Questions & Answers – Part I

- How much does cost the development of my SMS?
- How much does it cost me per year to run the SMS?
- What are the costs of the different SMS components?

Pilot Validation – How Much?

- How much does cost the development of my SMS?



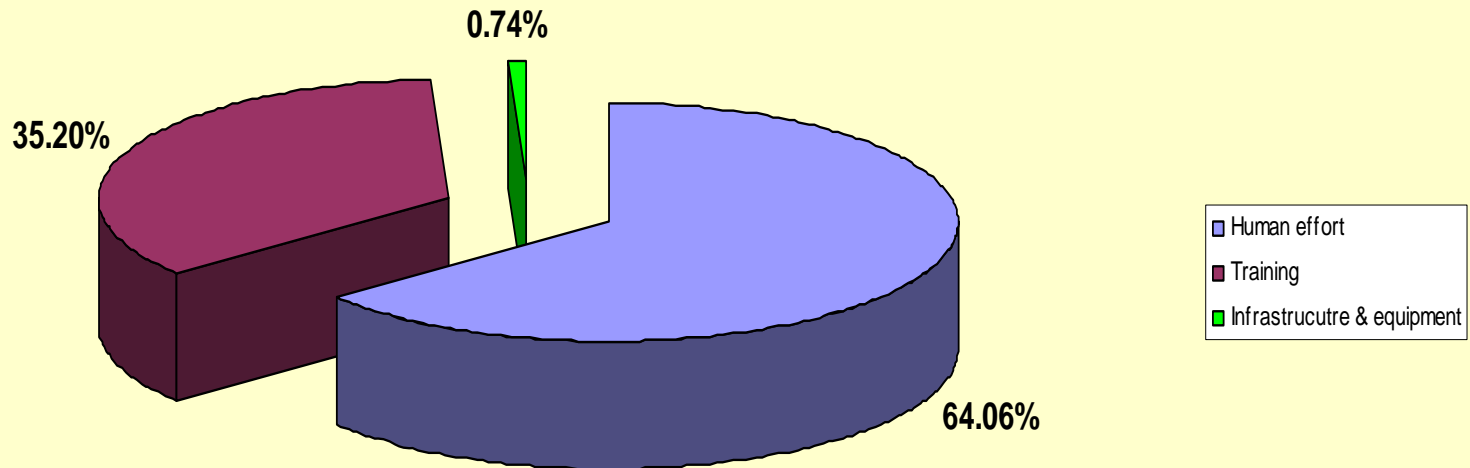
~ 1.04 %

- How much does it cost me annually to run the SMS?

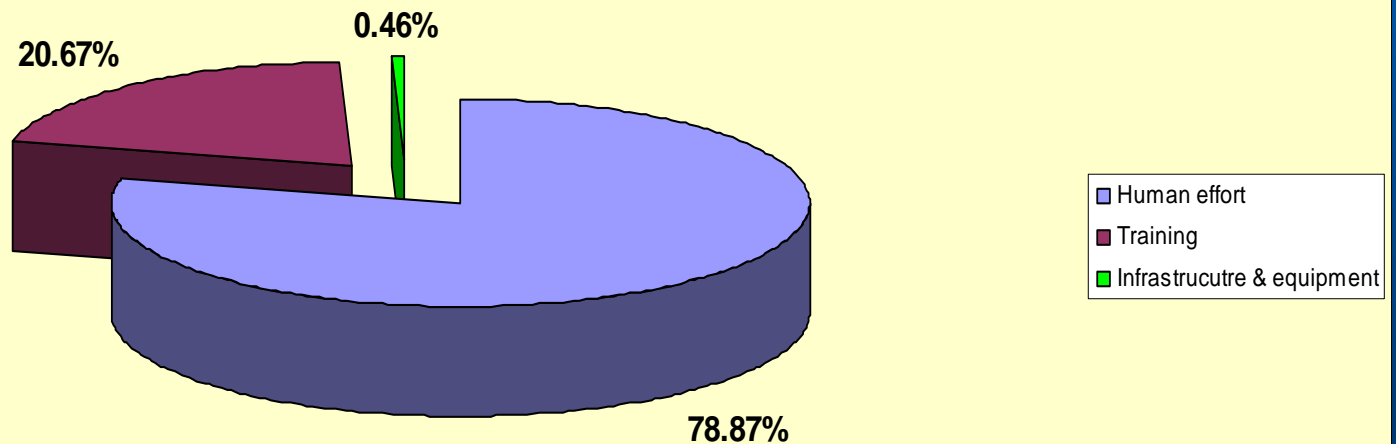


~ 1.0 %

Pilot Validation – Implementation



Pilot Validation – Operation



Questions & Answers – Part II

- **What is the effort spent by the different entities (units) for developing/operating SMS?**
- **How much will it cost me to develop, implement and run a new procedure?**

Pilot Validation – Share by staff category

- What is the effort spent by the different entities for developing the SMS?

| SAF | OPS | ENG | MAN | ANC | ADM | Ext |
|------|------|------|-----|-----|-----|-----|
| 47 % | 17 % | 17 % | 7 % | 5 % | 3 % | 5 % |

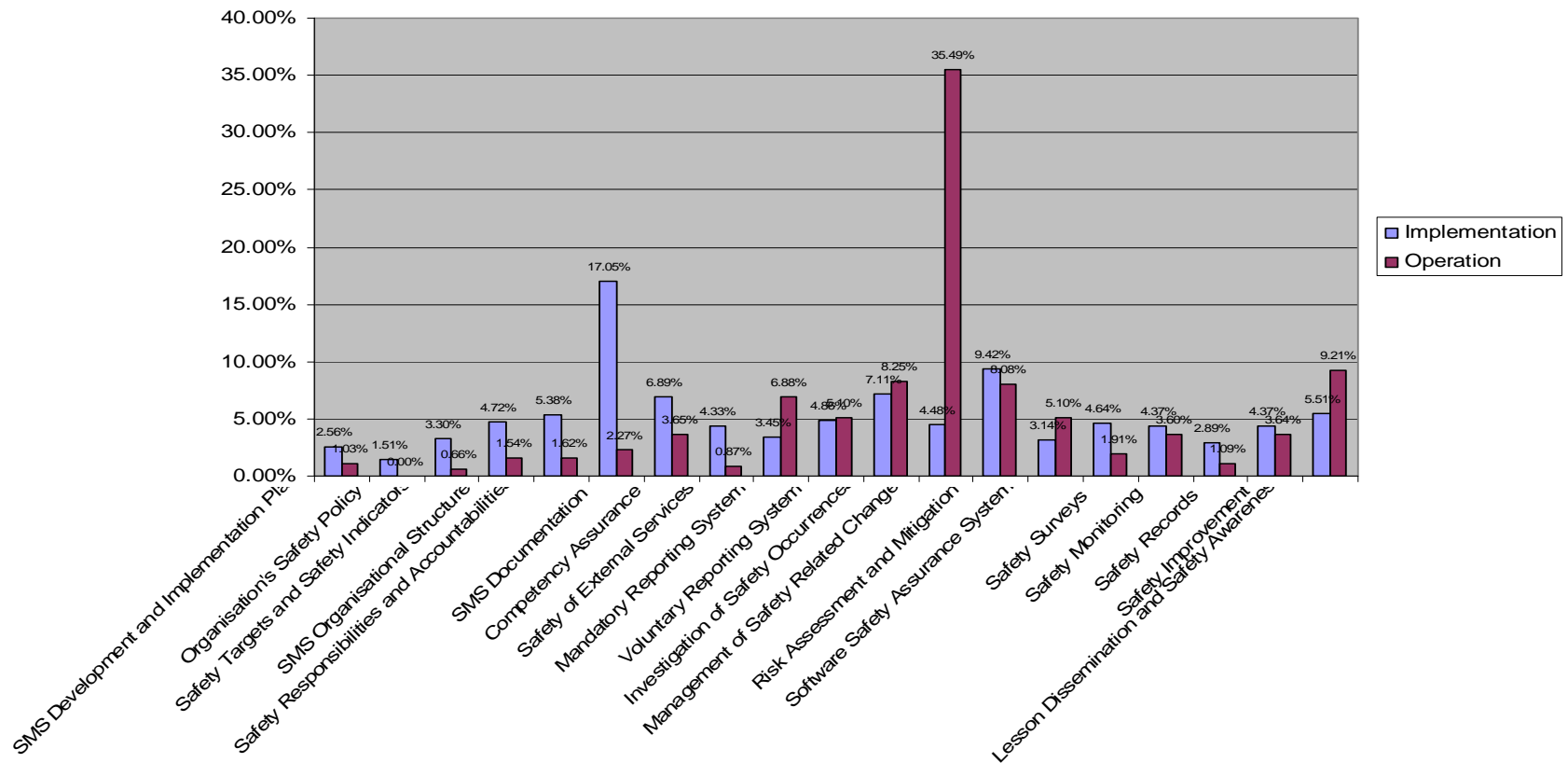
Pilot Validation – Share by staff category

- What are the efforts spent by the different entities for operating of SMS?

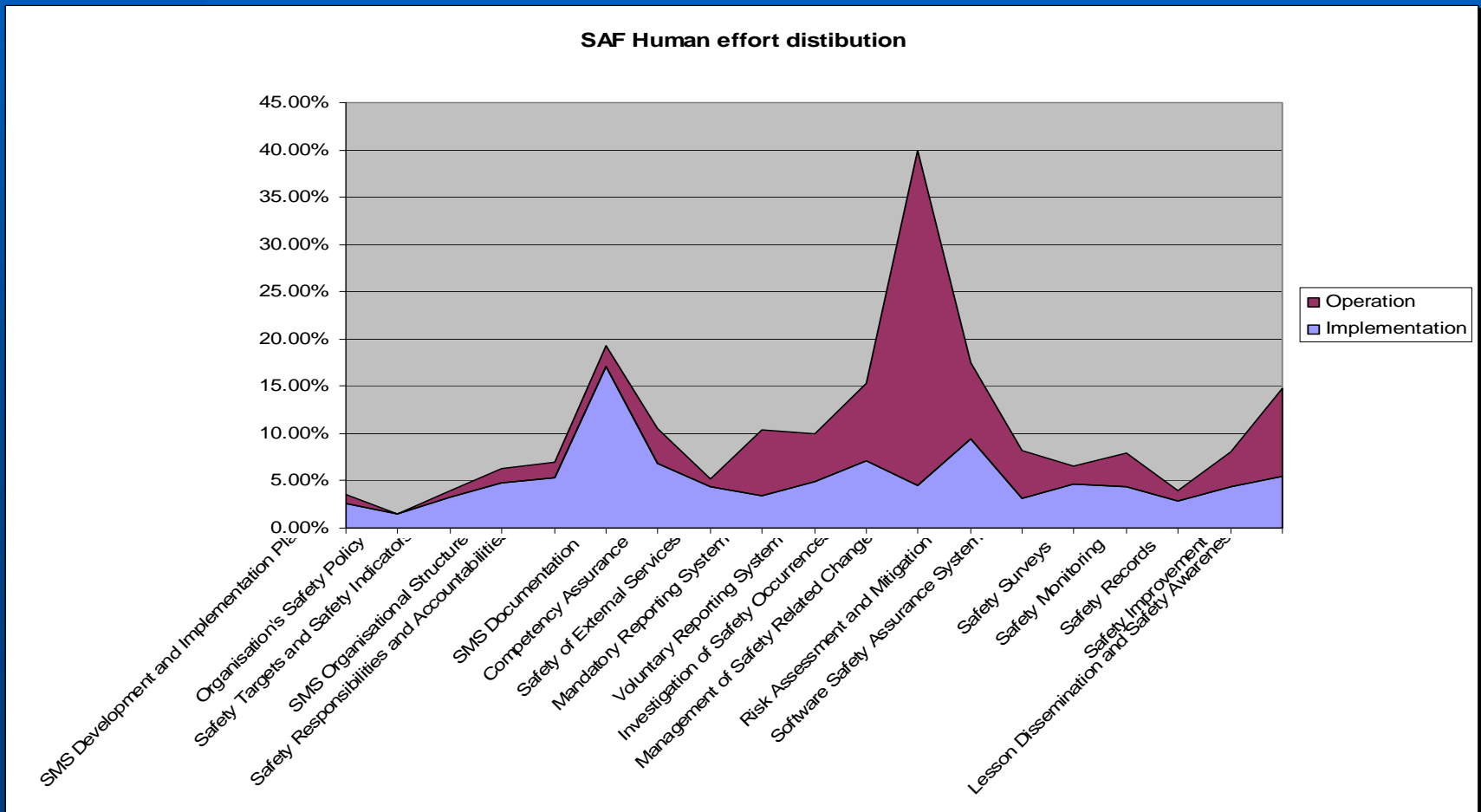
| SAF | OPS | ENG | MAN | ANC | ADM | Ext |
|------|------|------|------|-----|-----|-----|
| 43 % | 18 % | 18 % | 13 % | 5 % | 1 % | 1% |

Pilot Validation – SAF Human effort

SAF Human effort distribution



Pilot Validation – SAF Human effort



Pilot Validation – One procedure

Implementation Procedure:

Investigation of Safety Occurrences

Human effort man-days: (EXT - 6)

| SAF | OPS | ENG | MAN | ANC | ADM |
|-----|-----|-----|-----|-----|-----|
| 95 | 26 | 25 | 3.5 | 2.3 | 0.1 |

Training man-days:

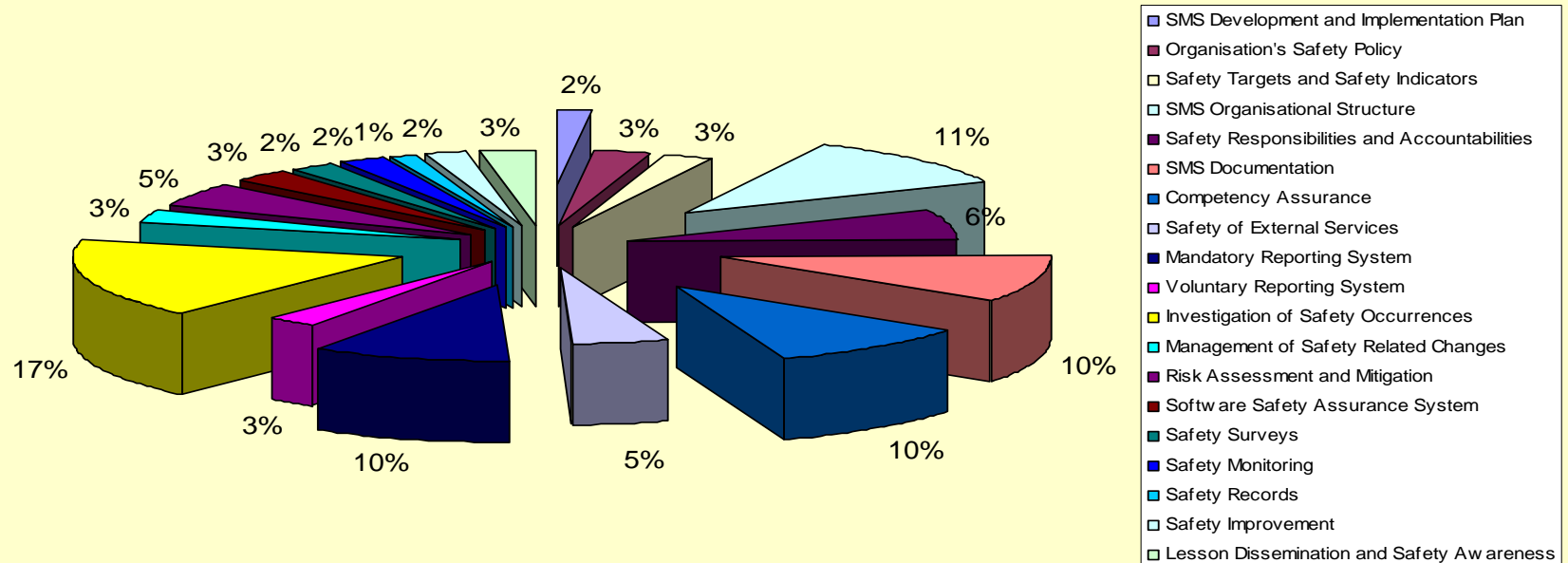
| SAF | OPS | ENG | MAN | ANC | ADM |
|-----|-----|-----|-----|-----|-----|
| 132 | 290 | 4 | 0 | 0 | 0 |

Infrastructure & equipment:

Standard Office Equipment – 45 000 EUR

Pilot Validation – Implementation

Implementation costs [%]



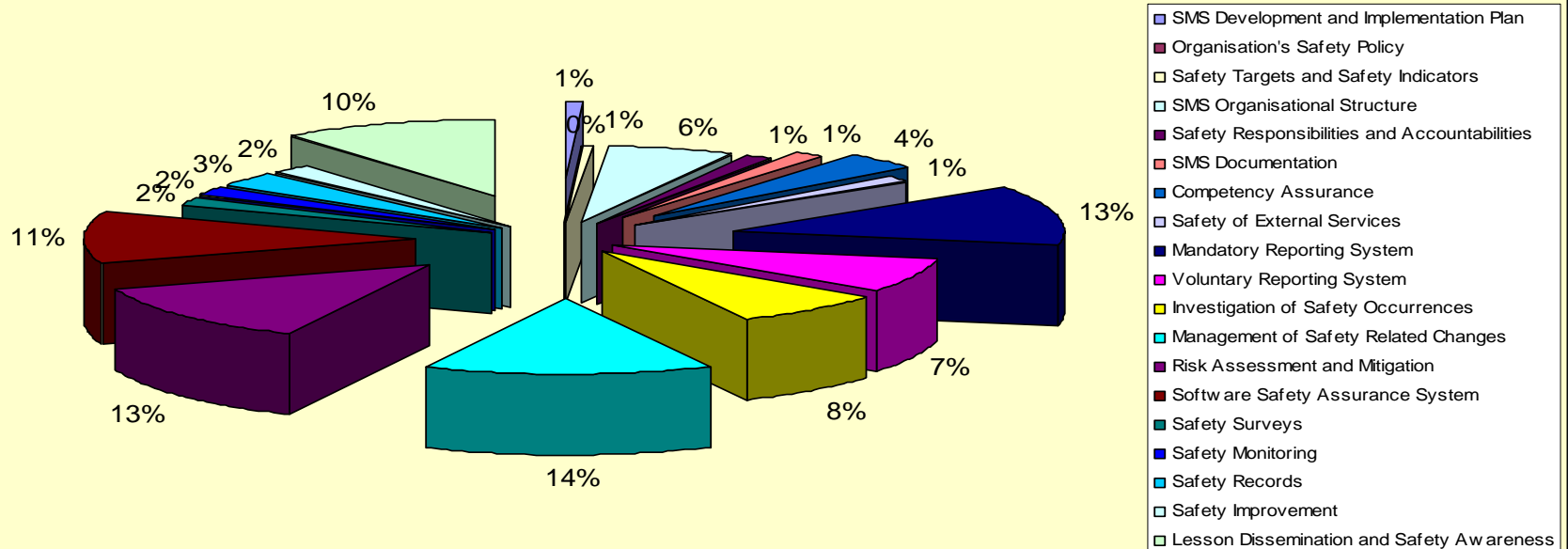
Pilot Validation – Implementation costs

- SMS organisational structure – 11 %
- SMS Documentation – 10 %
- Competency assurance – 10 %
- Mandatory reporting system – 10 %
- Investigation of safety occurrences – 17 %

Five procedures make up 58 %.

Pilot Validation – Operation costs

Operational costs [%]

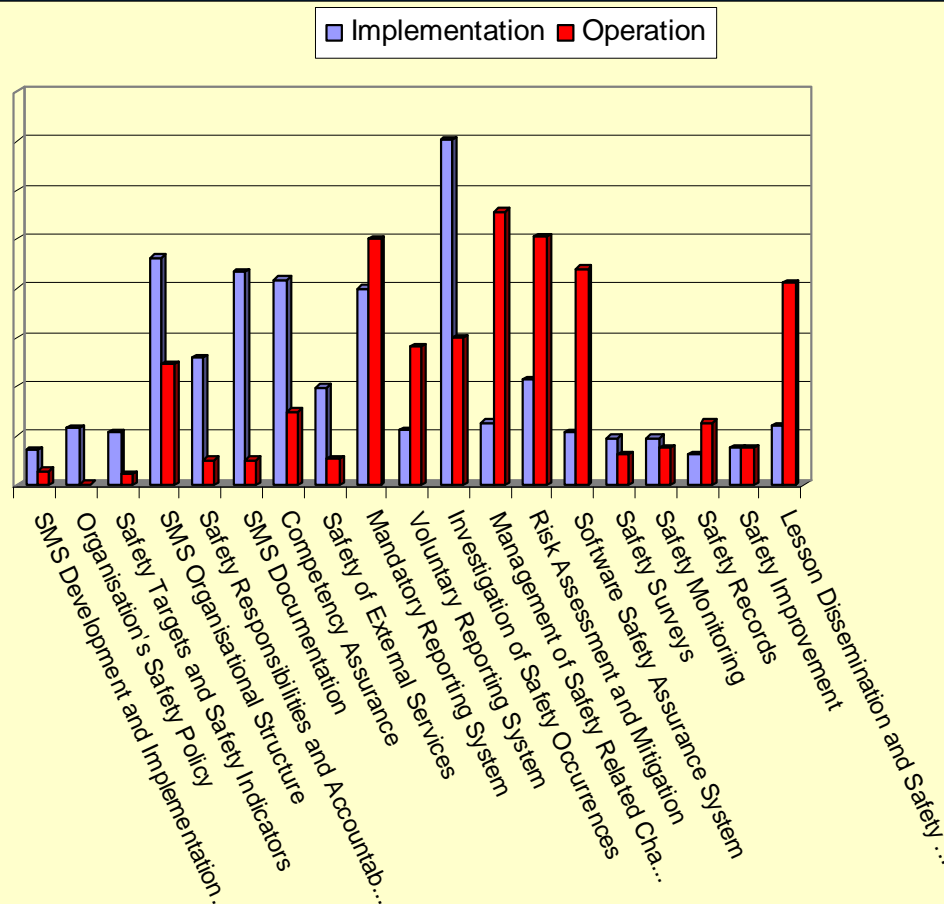


Pilot Validation – Operation costs

- Mandatory reporting system – 13 %
- Management of safety related changes – 14 %
- Risk assessment & mitigation – 13 %
- Software assurance plan – 11 %
- Lesson dissemination & safety awareness – 10 %

Five procedures make up 61 %.

Pilot Validation - Comparison



Pilot Validation – Summary

- **Total man-days implementation:**
 - human effort: ~ 2840
 - training: ~ 1150
 - Total: ~ 3990**
- **Total man-days operation:**
 - human effort: ~ 3170
 - training: ~ 520
 - Total: 3690**

Pilot Validation – Who?

- Time to collect data: 10 working days
- Who should participate?
 - Safety manager & expert
 - Financial expert
 - HR expert
 - Training centre expert
 - ATM expert

Thank you!

