Participatory strategy for the management of occupational risks

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Summary

• The SOBANE strategy
• The basic principles
• The operational validation
• Contribution to the management system
<table>
<thead>
<tr>
<th>Screening</th>
<th>Observ.</th>
<th>Analysis</th>
<th>Expertise</th>
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<tbody>
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<td>Areas</td>
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<td>Work organization</td>
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<td>Machines</td>
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<td>Psycho environm.</td>
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9 fundamental principles

1. The qualifications of the partners: workers, management, OH practitioners, experts are complementarity

2. The OH resources limited
   - A strategy is required to use them adequately

3. The workers and their management are ACTORS and not assisted
   - Participative approach

4. All OH problems are linked
   - Global approach

5. Prevention > Compliance
   - Not only comply with the legal values
   - But search for the optimal stage
   - for the employees and the company
Principles

6. **Prevention** > Evaluation or quantification

No assessment *a priori*, but *a posteriori*

“It is not unusual to see more attention given to exposure assessment than to risk prevention. The fascination exerted by sophisticated equipment and by numbers is, for some reason, greater than the interest in designing pragmatic solutions to prevent exposure“  
B. Goelzer (1996)

7. **Methods designed for SMEs** and not only for the large companies

8. **Proactive approach** instead of reactive approach

9. **Integration of the OH approach in the management system of the company**
General procedure

1. Information by the direction on the aims and commitment to take account of the results

2. Definition of a small group of workstations forming a unit, a "work situation" (15 to 20 people)

3. Designation of a coordinator

4. Adaptation of the tools to the work situation

5. Constitution of a working group (4 to 7 people) with
   - key operators designated by their colleagues
   - at least 1 man and 1 woman if mixed group
   - supervisory staff
6. Meeting of the group in a quiet room close to the working situation

7. Discussion on each heading
   - not to carry a score
   - but to determine
     - what can be made to improve the situation
     - what needs to be discussed ("Observation") more specifically

8. Synthesis by the coordinator
   - The list of the detailed solutions considered
   - The points that need to be studied more in detail
   - Who does what and when?
   - The short term action plan
9. Discussion by the management and the safety committee

10. Implementation of the action plans at short, medium and long terms

11. Integration of the action plans in the management system

12. Periodically, repetition of the operation

13. Revaluation of the situation and modification of the action plans
15 Observation and Analysis guides

1: Social facilities
2: Safety (accidents, falls...)
3: Machines and hand tools
4: Electricity
5: Fire and explosion
6: Lighting
7: Work on VDUs
8: Noise
9: Thermal environment
10: Chemical agents
11: Biological agents
12: Musculoskeletal disorders
13: Whole body vibration
14: Hand-arm Vibration
15: Psychosocial factors
Stage 1, Screening
Dialog guide Déparis
Dépistage Participatif des risques

- Method
- Checklist
- Questionnaire (?)
- ...

Dialog guide
### Situation of work:

1. Working areas
2. Work organization
3. Work accidents
4. Electricity, fire and explosions
5. Controls and signals
6. Work material, tools, machines
7. Work postures
8. Efforts and handling operations
9. Lighting
10. Noise
11. Chemical and Biological risks
12. Thermal environments
13. Vibration
14. Autonomy and individual responsibilities
15. Work content
16. Time constraints
17. Relationships between workers and with the hierarchy
18. Psychosocial environment
1. Premises and working areas
   - Workshops, offices and working areas
   - Circulation paths (people and vehicles)
   - Access to the working areas
   - Storing spaces
   - Technical maintenance
   - Housekeeping and waste
   - Floor
   - Social premises
   - Emergency exits

2. Work organization
   - Work organization
   - Work circumstances
   - The supply of the workplace
   - Interactions and communications
   - Means of communication

3. Work accidents
   - Working clothes and PPE
   - Falls from height
   - Falls on the ground
   - Falls or projections of objects
   - Mechanical risks
   - Procedures in case of an accident
   - Analyses of the work accidents
   - First aid

4. Electricity, fire and explosions
   - Electricity
     - The general wiring
     - The material
     - The equipment
   - Fire and explosion
     - Inflammable or explosive materials
     - Sources
     - Fire fighting devices
     - Compartmentalisation of the areas
     - The internal intervention team
     - Instructions in case of fire
     - Signposting

5. Controls and signals
   - Work orders
   - Signals and controls
   - Localization
   - Characteristics
   - Force

6. Work material, tools, machines
   - The material, tools and machines
   - Appropriate for each operation
   - Maintenance
   - Dimensions and forms
   - Adapted to the worker and safe
   - Training

7. Work postures
   - The repetition of the same gestures
   - Work postures
   - Work heights
   - Seated or seated/standing posture
   - Help means

8. Efforts and handling operations
   - Gestures and efforts
   - Hand efforts
   - Loads
   - Mechanical assistance devices
   - Training
   - Tiredness at the end of the day acceptable

9. Lighting
   - General lighting
   - Daylight and view outside
   - Shade, reflections or glare
   - Lighting uniformity
   - Lamps
   - Work on VDU

10. Noise
    - In the workshops: ease to speak, PPE
    - Location of the workstations
    - Means of communication
    - Noisy machines or installations
    - Holes, openings

11. Chemical and Biological risks
    - Chemical and biological risks
    - Training
    - Procedures
    - Labelling
    - Stocks
    - Dusts, chips, oils, vapour...
    - Chemical and biological waste
    - Signposting
    - Collective protections
    - Personal protective equipments
    - Sensitive personnel
    - Vaccinations
    - Hygiene
    - Air Renewal
    - Smokers

12. Thermal environments
    - Temperature
    - Humidity
    - No draughts
    - Cold, heat and humidity sources
    - Clothing
    - Protective clothing
    - Drinks

13. Vibration
    - The vehicles (lifting trucks...)
    - Vibrating machines (grinders, drills...)
    - Tools, bits, discos...
    - Training

14. Autonomy and personal responsibilities
    - Orders and expectations
    - Range of initiative
    - Autonomy
    - Freedom of contact
    - Degree of attention
    - Decisions
    - Responsibilities
    - Errors

15. Work content
    - Work interest
    - Qualifications
    - Information and training
    - Emotional load

16. Time constraints
    - Work schedules and work program
    - Work rate
    - Group autonomy
    - Work interruptions
    - Breaks

17. Relationships between workers and hierarchy
    - Communications during work
    - Allocation of work
    - Mutual assistance between workers
    - Consultation about the work
    - The hierarchy
    - Relations with the hierarchy
    - Workers suggestions and remarks
    - Evaluations

18. Psychosocial environment
    - Promotions
    - Discriminations
    - Employment
    - Salary
    - Company council and safety comities
    - Psychosocial problems
    - Living conditions in the company
Operational validation of the Déparis guide

In 2003 and 2005, validation of the Déparis guides

- 80 companies, 9 sectors, 3 sizes
- 1800 workers concerned (40% women)
- 986 proposals (12 per reunion)
  - No cost: 40%
  - Little costly: 36%
  - Costly: 16%
  - Very costly: 8%
- 66% unknown before
- 58% specific to the work situation
- 60% practical and directly applicable
- 40% relative to productivity
Advantages of the SOBANE strategy

• Directly participative:
  ▪ The workers and their local management are the actors and no longer the assisted

• Reallocation of the roles and responsibilities concerning health, safety and well-being at the workplace

• Simple to understand and to adapt to any language, any culture and any work situation

• Simple to use
  ▪ Whatever the industrial sector and the level of instruction of the people
Advantages of the SOBANE strategy

- Deals with the problems and difficulties experienced by the people themselves
  - Takes into account their personal characteristics of age, gender, origin...

- Oriented toward Why? and What to do?
  - Instead of toward How much?

- No quantification and no unreliable rating scales
  - But still makes it possible to define the priorities
  - and to set up prevention programs
  - in the short, medium and long terms

- Ratio benefit/cost very favorable:
  - economical in time: a 2h meeting with 5 to 8 persons;
  - economical in means: no measurement
  - leading to practical and realistic improvement or prevention measures
Advantages of the SOBANE strategy

• Leads to improvement or prevention measures relating to:
  • The elimination of the risk factor
  • The improvement of the exposure
  • The improvement of the exposure circumstances
  • The use of the Personal protective equipments
  • The behavior of all the partners in the work situation
    • Allocation of the functions
    • Mutual comprehension and confidence
    • Motivation and satisfaction
    • Request for adequate training
Advantages of the SOBANE strategy

• Significant contribution to the education to safety, health and well being of the workers and the management

• Development of the motivation in the company
  ▪ The working team is in charge of its living conditions

• Change of paradigm
  ▪ NOT to avoid problems: costs, negative aspects
  ▪ BUT to gain efficiency: investment, positive aspect
Advantages of the SOBANE strategy

- **Dynamic management of**
  - Not only for the traditional risks (physical and ergonomical aspects)
  - But, whatever the industrial sector, to all the aspects that influence the well-being physical, mental and social of the workers and their supervisors

- **Easy integration of the improvement/prevention measures**
  - into the management system of the company
  - as well as in the agendas of each individual

- **Gives to everyone (direction, hierarchical line, OHC, workers) a reliable overview of the health and safety state of the company.**

- **Makes it possible (indicator) to follow the evolution of the health and safety state of the company.**
The ongoing SOBANE project in Italy:

Same conclusions:

- **Implementation of a culture of "doing",** instead of the habit of measuring
- **Implementation of a culture of "doing as soon as possible",** instead of the habit of delaying
- **Implementation of a culture of "doing together"** instead of pyramidal management
- **Effective assessment of work–related stress in the whole context of the work situation (and not separately) and identification of improvement measures.**
- **Implication of the hierarchical line in the management (identification and prevention) of the health and safety problems**
Preliminary statistical analysis of the data

- 41 companies, more than 5,000 employees, using the Déparis approach since 2009
  - no (yet!) control group of paired enterprises

<table>
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<td>2007</td>
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<td>2009</td>
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<td>Accident frequency rate</td>
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- judged sufficiently effective for the Italian institute of Occupational Accident and Disease Compensation to grant a premium reduction to the company using the Déparis approach.
Wilcoxon matched-pairs signed-ranks test = -2.24: p<2%
Wilcoxon matched-pairs signed-ranks test = -2.55: p<1%
## Results per sector

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<thead>
<tr>
<th>Sector</th>
<th>Nb</th>
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<th>Tf = \downarrow</th>
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<th>Tg = \downarrow</th>
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## Results per company size

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<td>&gt;100</td>
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<td>9</td>
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<td>41</td>
<td>5348</td>
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<td>31</td>
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Conclusion

OHSAS 18001
or
integrated ISO 9001 + 14001 + 18001

Déparis
SOBANE
Thank you for your attention...