ETPIS, an opportunity for a sustainable European industry growth

Synergies with ECTP

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RATIONALE & OBJECTIVES

Why synergies between ETPIS and ECTP?
The Facts

• **Accidents at work** in industry kill 1 person every 2 hours and injure 1 person every 5 seconds [Eurostat, 2004]

• In EU-15 (2001), the death toll is approximately [Eurostat, 2004] 4,900 **every year** from a total of 7.6 **million accidents** (4.9 million resulted in > 3 days of absence)

• In 2002 in new EU MS, almost **2.5 million accidents** at work and 1,400 fatalities were recorded [ILO, 2004]

• Cost of accidents at work and occupational diseases in EU-15 ranges for most countries from **2.6 to 3.8%** of Gross National Product (GNP). [www.ilo.org]
From [Eurostat, 2004]

### Table A.10: Accidents at work by economic activity, sex, age and year. EU-15, with more than 3 days’ absence.

<table>
<thead>
<tr>
<th>All NACE-defined</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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</thead>
<tbody>
<tr>
<td>All industries</td>
<td>845 841</td>
<td>693</td>
<td>628</td>
<td>675</td>
<td>655</td>
<td>587</td>
<td>596</td>
<td>659</td>
<td>735</td>
<td>783</td>
<td>859</td>
<td>909</td>
</tr>
<tr>
<td>Construction</td>
<td>845 841</td>
<td>693</td>
<td>628</td>
<td>675</td>
<td>655</td>
<td>587</td>
<td>596</td>
<td>659</td>
<td>735</td>
<td>783</td>
<td>859</td>
<td>909</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1 328 898</td>
<td>1 169</td>
<td>1 143</td>
<td>1 210</td>
<td>1 185</td>
<td>1 083</td>
<td>1 146</td>
<td>1 276</td>
<td>1 412</td>
<td>1 472</td>
<td>1 551</td>
<td>1 607</td>
</tr>
<tr>
<td>Chemical industry</td>
<td>40 320</td>
<td>34</td>
<td>32</td>
<td>34</td>
<td>34</td>
<td>33</td>
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<td>34</td>
<td>37</td>
<td>38</td>
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<td>39</td>
</tr>
</tbody>
</table>

**In year 2000,**

- **845 841 accidents in construction sector**
  - (17.5 %, 7.7 % employees)
- **1 328 898 accidents in manufacturing**
  - (27 %, 21.1 % employees)
- **40 320 in chemical industry**
  - (0.84 %, 1.4 % employees)

among 4 815 629 accidents in all sectors

(more than 3 days absence)
in year 2000,

1 279 fatal accidents in construction (24.4 %)
976 fatal accidents in manufacturing (18.6 %)
44 fatal accidents in chemical industry (0.84 %)

among 5 237 fatal accidents in all sectors
The Facts

- Major Accident Reporting System: ~ 30 major accidents / year (corresponding to annex 6 of the Seveso directive)
The Facts

ETP Industrial Safety - Objectives

• To gain ‘Safety for the Sustainable Growth of all European Industry’ by reducing the number of accidents & supporting safe technological & method innovation
• To bridge the different aspects of "industrial safety” (EH&S)
• To facilitate and accelerate the breakthrough for progress in industrial environmental, health & safety (EH&S) via a co-ordinated, integrated research & implementation process.
• To valorise, exploit and implement the results.
Operating ETPIS to defragment R&D

Identify and collect needs to improve industrial safety

Prepare and share the Roadmap for industrial safety

Risk assessment and management methods
Advanced risks reduction technologies
Structural safety
Human and organisational factors
Emerging risks

HUB Education, training, transfer to industry
HUB Nanosafety
HUB Transport systems and tunnels
HUB Large scale experiment facilities (NEXIS)
The Strategic Research Agenda

Where to work together?

(from the ECTP SRA)
Where to work together?

1. Meeting client requirements
   1.1. Healthy, Safe and Accessible Indoor Environment for All
         Possibility of evacuation for all

   1.3. Efficient Use of Underground Spaces
         Safety (fire, explosion...) of UG facilities
         ... Bury Industrial Facilities

   1.4. Mobility and Supply through Efficient Networks
         Management of risks and emergencies
         Optimise security of networks, incident
Where to work together?

2. Becoming sustainable

2.2. Reduce Environmental and Man-Made Impacts
Environmental impact of accidents

2.3. Sustainable Management of Transports & Utilities
Response of infrastructure to natural and man-made hazards

2.5. Improve Safety and Security (natural and man-made hazards - NaTech) (FA Quality of Life)
Risk assessment methods
Development of European guidelines
Prediction – simulation tools
Protection systems
Safety and security of infrastructure
Where to work together?

3. Transformation of the construction sector:
   3.1. A New Knowledge-Based Construction Process

3.2. ICT and Automation
   ‘Value’ assessment of built environment:
   functionality, safety, security ....

3.3. High Added-value Construction Materials

3.4. Attractive Workplaces (FA Quality of Life)
   Re-engineering construction (H&S issues)
   Zero-accident target
   Dangerous occupations transformed through
   automation / remote control
Added-value of the collaboration

• Work on safe constructions in:
  Process industry, Transport infrastructure, Dams...

• Share experimental facilities