



## Workshop 2: Benchmarking in OSH

### Future challenges to address with benchmark and exchanges of good practices

Olivier SALVI, Secretary General of the European Technology Platform on Industrial Safety (ETPIS)



# Presentation outline

- **ETPIS, an instrument to strengthen the European Community working on industrial safety**
- **Findings from the Benchmark Workshop about Future Challenges in Horizon 2020**
- **Opportunities to tackle the Future Challenges**

# What is ETPIS? It is...

- An instrument to pilot and defragment EU research investment in industrial safety (OHS, Process safety and environmental safety)
- *Vision & Strategic Research Agenda*
- *10 National TPIS*



Buncefield, 11 De. 2005  
(UK)



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- An open forum with 800+ experts to share ideas, prepare future work & disseminate results
  - *Focus groups, Technical Workshops & Conferences*
  - *Education and Training*

- A platform driven by industry
  - *High Level Group with representatives from Chemical, Oil, Car, Energy, Transport, Food, Re-insurance, Construction, Manufacturing and EU-OSHA*



# ETPIS as Cross-ETP initiative on Industrial Safety

- Evaluation by the European Commission last spring 2013
- ETPIS has become a Cross-ETP Initiative
  - Cross-cutting / transversal topic
  - Potential interactions with all other ETPs
  - Safety as an overarching issue

Individual ETPs

Bio-based economy	Energy	Environment	ICT	Production and processes	Transport
EATIP	Biofuels	WssTP	ARTEMIS	ECTP	ACARE
ETPGAH	EU PV TP		EUROP	ESTEP	ERRAC
Food for Life	TPWind		ETP4HPC	EuMaT	ERTRAC
Forest-based	RHC		ENIAC	FTC	Logistics
Plants	SmartGrids		EPoSS	SusChem	Waterborne
FABRE TP	SNETP		ISI	Nanomedicine	
TP Organics	ZEP		Net!Works	ETP-SMR	
			NEM	Manufacture	
			NESSI		
			Photonics 21		
Cross ETP Initiatives					
Nanofutures					
Industrial Safety					

See [http://cordis.europa.eu/technology-platforms/individual\\_en.html](http://cordis.europa.eu/technology-platforms/individual_en.html)

# Cross-ETP initiative on Industrial Safety

## Vision and missions as cross-ETP

- SafeFuture vision: “**Safety for sustainable and competitive future**”
- Focus on **Societal Challenges**
- Develop the solutions ***technological*** and ***non technological*** – *regulatory, standards, public acceptance, cultural* ... that the industry needs to operate a sustainable business based on innovation (new products, new technologies with adequate management of residual risks).





# SafeFuture

## safety – security – sustainability

### Safe Infrastructures:

J.J. LARRAÑETA (Tecnalia)

- Life extension of process plants, transport infrastructures, power plants...
- Intensification of NatCat (NaTech)
- Design and monitoring for long term operation
- Adaptation of infrastructures to new energy systems



### Safe Energy:

O. SALVI (INERIS DEV)

- New energy carriers for ground vehicles (FEV, fuel cells, CNG, H2...)
- Deployment of sustainable fuels
- Energy storage in stationary applications

### Safe Products/Production:

J. MEULENBRUGGE (TNO)  
and R. NOMEN (IQS)

- Green jobs
- Value chain and interdependencies
- Nanosafety
- PPEs in a Smart Working Environment

### Safety Cross-cutting issues:

A. JOVANOVIC (Steinbeis R-Tech) & V. COZZANI (CONPRICI, UniBo)

- Multi-Risk / Risk-Risk tradeoffs – safety for sustainable integration, interaction and risk governance
- “Agreed Approach to Risk-Risk Tradeoff management” (the Multi-Risk initiative); difficulties in putting together different risk mitigation policies and ensuring their compatibility

# Cross-ETP initiative on Industrial Safety

## Vision and missions as cross-ETP

**Strategy** From the Strategic Research Agenda the **SafeFuture** Initiative has been developed to address Societal Challenges. In relation with the **ERA-NET SAFERA** it provides the structure for research and implementation planning.

**Mobilization** The **open forum** offered by ETPIS enables the members and stakeholders to meet and develop solutions to current and future safety challenges using various funding schemes, mainly at EU level with e.g. the European Framework Programme.

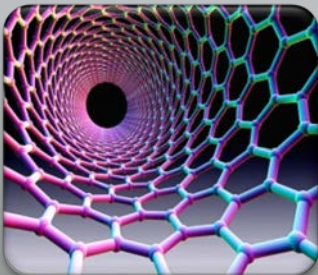
**Dissemination** **Newsletters, technical workshops, and other events** organized on a regular basis contribute to keep the community up-to-date with legal requirements and the new knowledge gained through research and innovation.

# Safety in Horizon 2020



## Conventional risks

improving the safety performance in all industry sectors and reducing the impact of accidents taking into account technical, human, organisational and cultural aspects, and the current 'state-of-the-art methods' for safety management.



## Innovative industry

accompanying the innovative industry to reduce the time to the EU market and reach public acceptance of new technologies and products by implementing e.g. the [CEN Workshop Agreement CWA 16649:2013](#) '[Managing emerging technology-related risks](#)' adopted on June 26, 2013

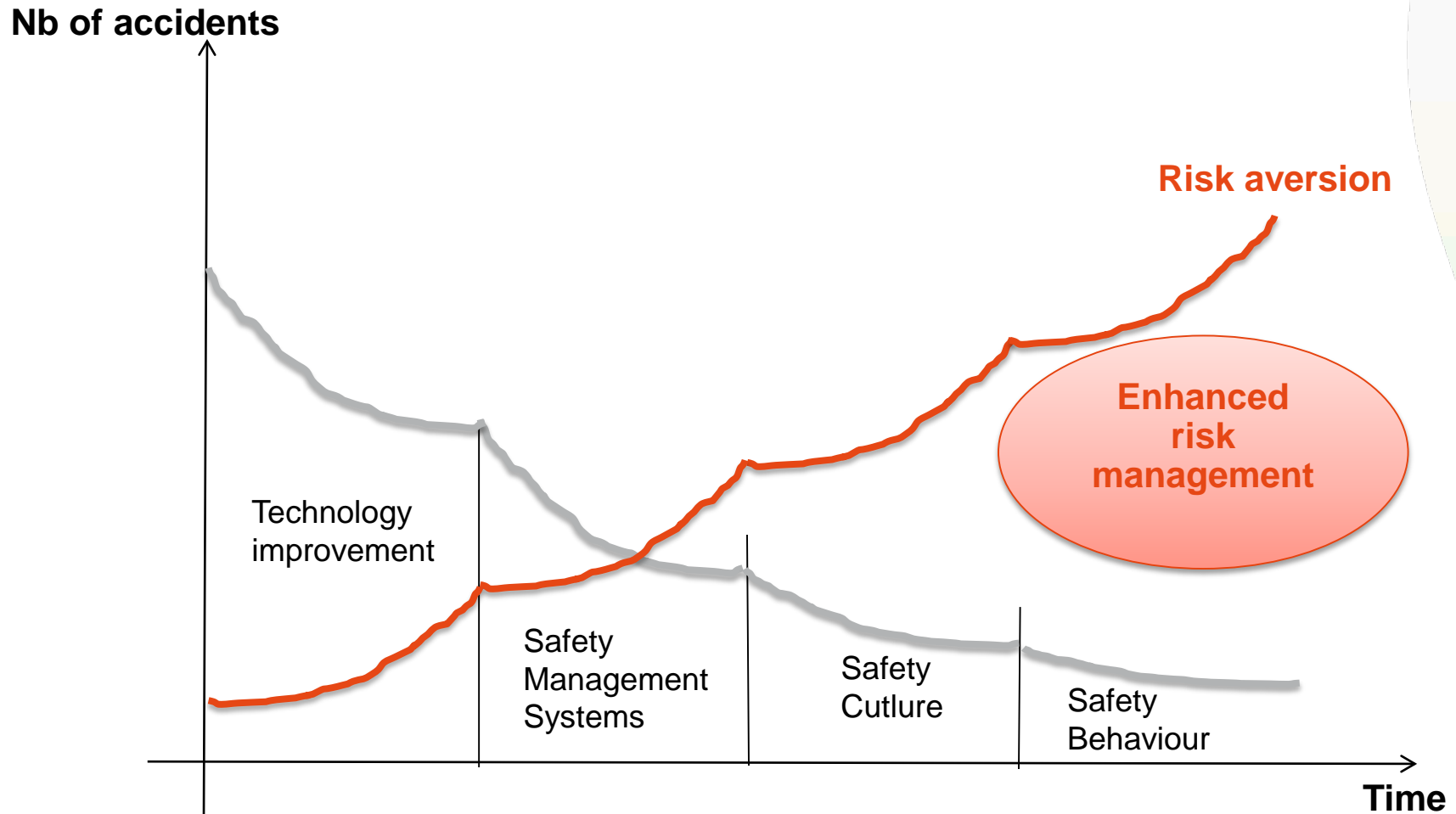


## Safety technologies, products & services

guaranteeing the leadership of the EU safety industry on personal protective equipment, safety systems, inspection and control...



# Evolution of safety performance and risk aversion



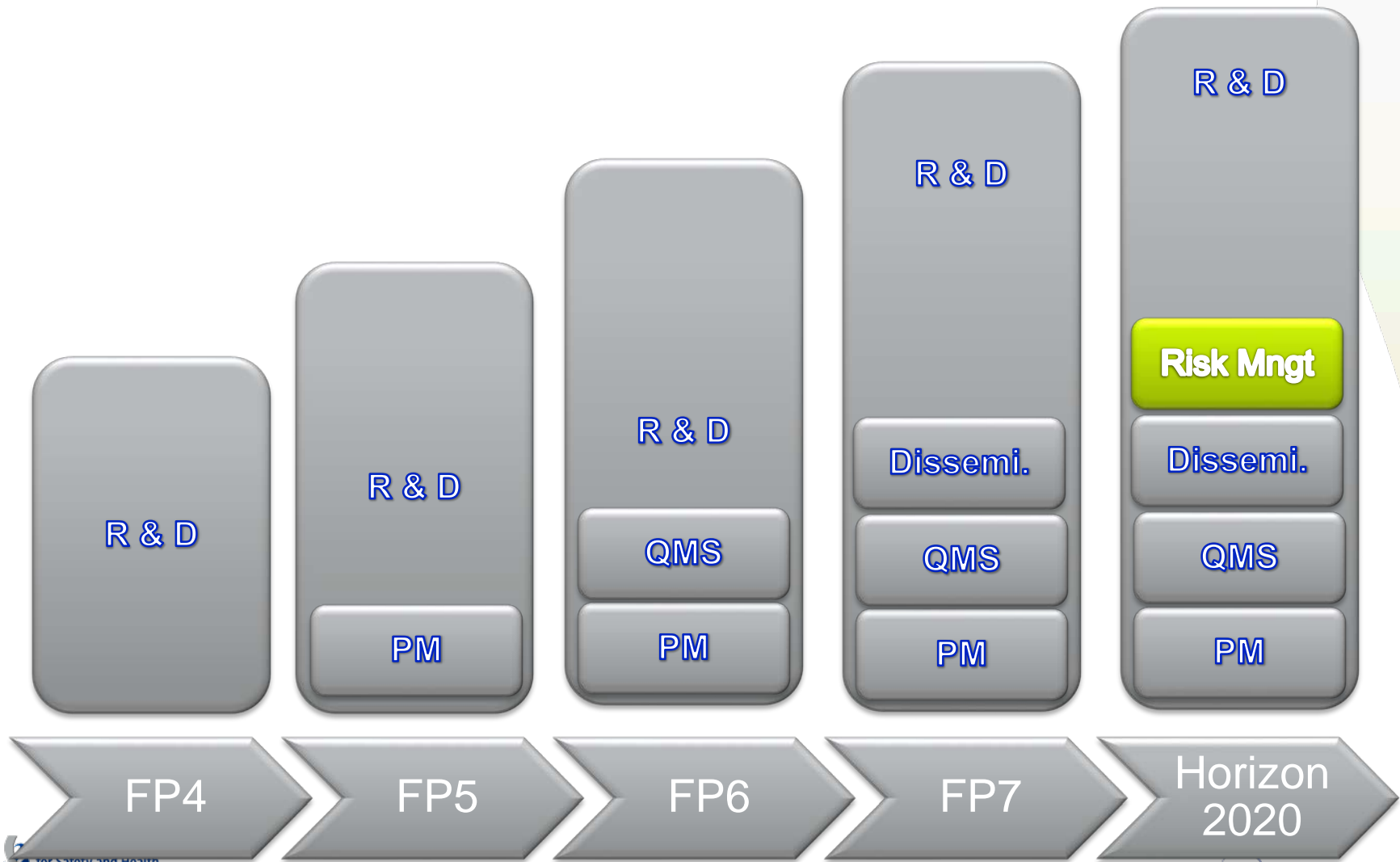
decrease of the number of accidents => decrease of their tolerance

# Enhanced Risk Management

## ○ 7 principles

- **Expertise** based risk assessment (not only knowledge and experience based), working under high uncertainties and ambiguities
- **Collaborative** and **integrative** risk assessment based on a distributed multidiscipline expertise, using RiskEars, ENISFER and RiskForum
- **Dynamic** risk assessment and management, using KPIs
- **Adaptive** risk management, to the context and the desired safety performance
- **Aligned** with ISO 31000, ISO 26000, ISO 27000, ISO 55000, IRGC framework, iNTeg-Risk CWA 67...
- Use of **advanced technology** for solutions
- **Participative** through education and life-long learning

# ETPIS Proposal: Risk Management in all innovative technology project in Horizon 2020



# Technological and scientific challenges

## We observe or anticipate:

- **More ICT in the daily business**
- **New products and technologies...**
  - ... with new energy
  - ... with nano inside
  - ... with more biotechnologies

## Solutions should focus on:

- **Management of change**
- **Communication on safety inside the companies and with all stakeholders**
- **Improvement of use of ICT for safety**

# Structural challenges

## We observe or anticipate:

- Immigrant workforce
- More access to information and more participative decision process
- Ageing of the installations and of the workforce

## Solutions should focus on:

- Life-long training
- Organised dialogue for safety
- Building resilient organizations



# Policy challenges

## We observe or anticipate:

- **Changes in the values of the society**
- **Integration of OSH, Process Safety, Security, Environment because of with ISO 31000, ISO 26000, ISO 27000, ISO 55000, IRGC framework, iNTeg-Risk CWA 67...**

## Solutions should focus on:

- **Integration of the regulatory frameworks for more cost-effectiveness**
- **From prescriptive to more goal-oriented with robust standards**

# Opportunities to tackle the challenges

## ETPIS proposal

- **Further thematic benchmark exercise/workshop for example on:**
  - Safety culture
  - Positive wording for safety
  - Integration of safety and security issues
  - Practical organisational learning and management of change
  - ...
- **ETPIS can offer:**
  - Working groups
  - Seminars in person or virtual (webinar/teleworkshops)
  - Collect structured topics for research to promote research in Horizon 2020 programme and in SAF€RA (ERANET on Industrial safety)


# Perspectives

- **ETPIS provides an effective forum to exchange ideas on safety, security and sustainability towards an integrated and global approach**
- ***SafeFuture* is the vehicle to promote industrial safety in the new political and industrial context provided that safety management are key for sustainable and competitive business**
- **Future initiatives and projects have to be prepared in partnership with sectoral platforms, and both industry and public authorities to reach an effective implementation**

European Technology Platform - Industrial Safety - Microsoft Internet Explorer - [Travail hors connexion]

Fichier Edition Affichage Favoris Outils ?

Adresse http://www.industrialsafety-tp.org



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**Industrial Safety**

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latest news


**5/9/2005**  
Launch event of the European Technology Platform on Industrial Safety will be held on June 30th 2005 in Gdansk, Poland. [MORE](#)

**3/1/2005**  
Meeting of the Advisory Council [MORE](#)

**12/6/2004**  
MANUFACTURE 2004 Conference : European Manufacturing of the Future : Making Research Work [MORE](#)

**Welcome to TP on Industrial Safety**

**What is TP safety?**



What exactly is a TP on Industrial Safety and what are technology platforms in general? Learn more about this initiative, about its goals, organization, structure...

**TP Industrial Safety Launch Event**

Launch event of the European Technology Platform on Industrial Safety will be held on June 30th 2005 in Gdansk, Poland. Registration deadline is 25th June 2005. You can register and register using the registration form which can be downloaded [here](#).

**Join the Industrial Safety Technology Platform**

You can join the Industrial Safety Technology Platform by applying using the membership form. [Click here](#) to download the Technology Platform membership form in MSWord format.

**Join a Focus Group of the Industrial Safety Technology Platform**

The Technology Platform on Industrial Safety has following focus groups:

- FG1. Methods and technologies to reduce risk at work, for the environment, major accidents
- FG2. Methodologies for Risk Assessment and Risk Management
- FG3. Human and Organizational Factors
- FG4. Education and Training
- FG5. Research Incubator: Emerging and Cross-cutting Risk & Safety issues

**Register Form.**

**Download**

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Internet

**More information available at:  
<http://www.industrialsafety-tp.org>**

