Foresight on new and emerging risks related to OSH

Working Environment Challenges for the Future
Danish Working Environment Authority
& PEROSH
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Overview

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- Mission of the European Risk Observatory
- Methods for identifying new and emerging risks
- Now: ESENER
- Next: Foresight

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Trends: then and now

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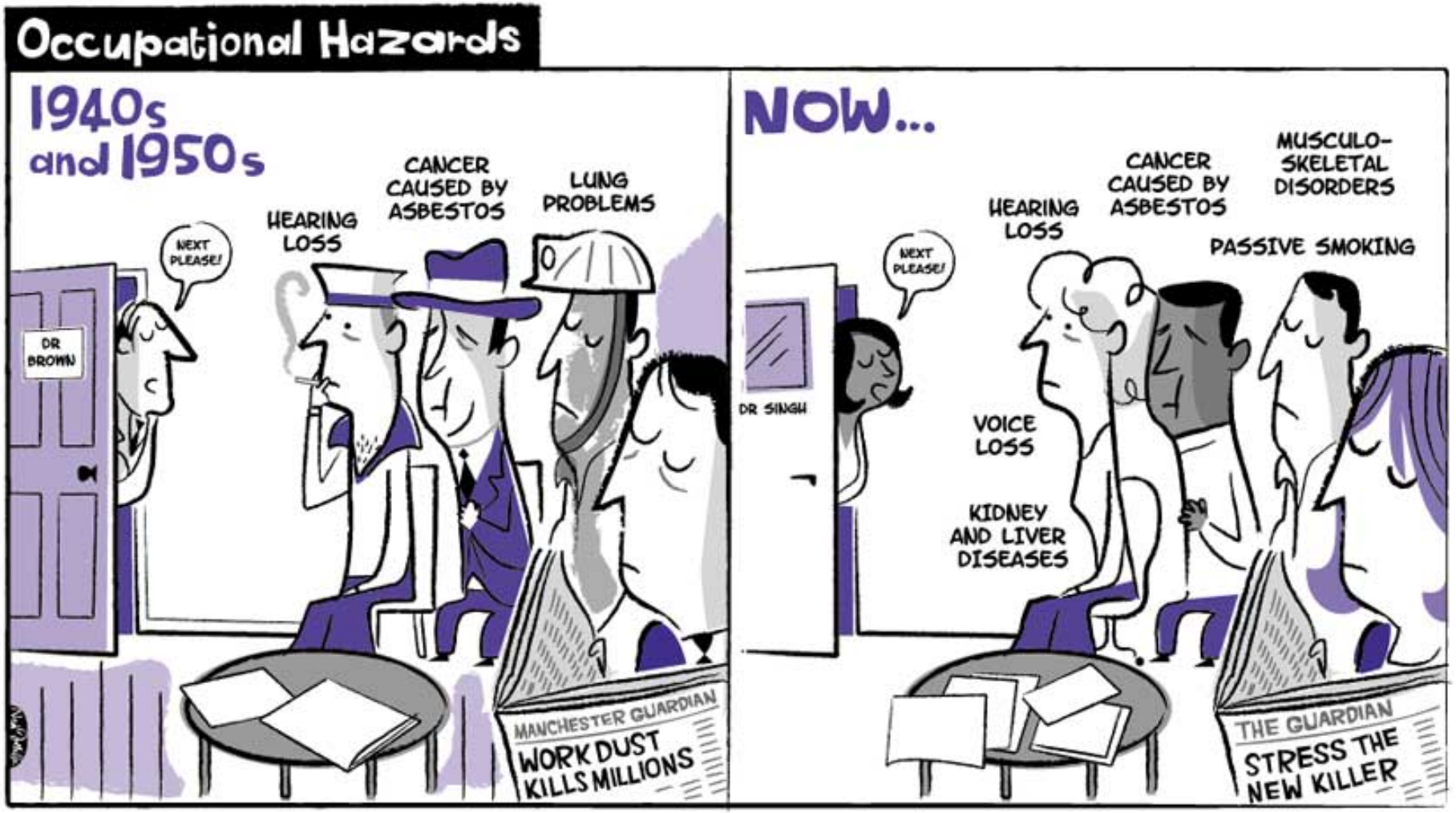

ERO mission: identify new and emerging risks

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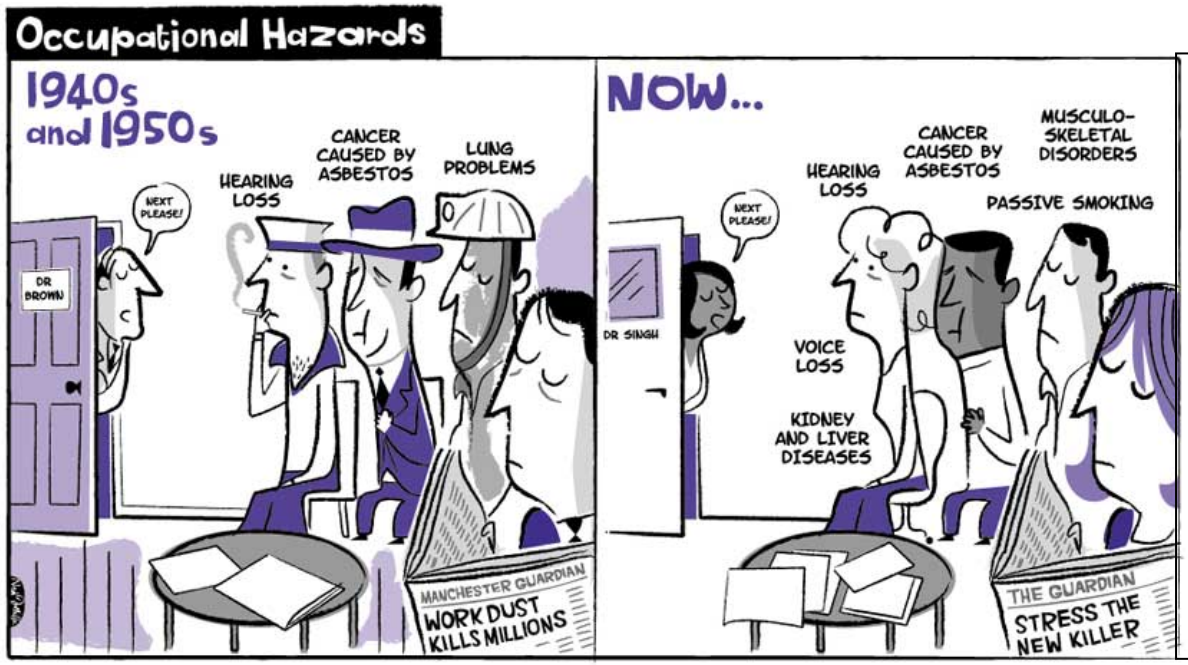

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"If we could first know
where we are,
and whither we are tending,
we could then better judge
what to do,
and how to do it."

- Abraham Lincoln, 1858

ERO's 3 dimensions: PAST

PAST

- Draw on past information through the collection and analysis of historical data: "OSH in figures"
- Explore evolution of past trends, relate them to the current data on new and emerging risks
- Watch out for trends that may have gone unnoticed (e.g., affecting specific groups), and which should be reported to improve monitoring or prevention of new and emerging risks

ERO's 3 dimensions: PRESENT

PAST

PRESENT

- Monitor OSH in 'real time' by collecting and analysing current data
- Literature surveys and policy reviews
- EU-27^{+} enterprise survey (management of OSH and psychosocial hazards)
- 'Stimulating debate' seminars and expert workshops
- Other sources of current data: through networks of OSH practitioners, researchers, social partners, occupational physicians, other observatories (at national level or on particular OSH-related topics)

ERO's 3 dimensions: FUTURE

PAST

PRESENT

FUTURE

- Medium-term, Delphi-studies:
  - Four expert forecasts on: physical, biological, psychosocial & chemical emerging risks
  - Followed up with specific literature reviews
- Foresight:
  - 2009-2011: a 10-year foresight: "impact of technological innovations on OSH": the *green jobs*

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Where we are

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- **European Survey of Enterprises on New and Emerging Risks (ESENER)**
  - **Data collection**
  - **Input into policy-making**
  - **Stimulating debate & awareness raising**

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What's going on?:

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- How do enterprises **actually** manage OSH and, specifically, psychosocial risks?
- How can they be supported to take better preventive action?
- European Survey of Enterprises on New and Emerging Risks (ESENER)
- Interviewing managers and staff representatives

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Management view

- How do enterprises manage OSH and, specifically, psychosocial risks?
- What resources/support do they **have**?
- What resources/information do they **need**?
- Which are the most important **drivers**? **Barriers**?
- How are the employees involved?
- Are external services contracted?

Employee view

- Are they aware of a policy? Has there been a risk assessment? (why not?) What real impact do they have in practice?
- How were employee representatives involved?
- How easy is it for them to fulfil their duties?
- What training do they receive?
- What support or information is needed?

Technical specifications

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- Minima of 500, 1000 or 1500 interviews per Member State
- All enterprises with >10 employees
- All sectors except NACE ‘A’, ‘T’ & ‘U’
- Both public and private sectors
- Budget for EU27: €2.3 million
  - Croatia & Turkey (IPA funds)
  - Switzerland & Norway (own costs)

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Project outline

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- Cooperation with Eurofound
- Fieldwork finished in June
- First results: Governing Board (**18 Nov**.)
- Launch of full results: **Spring 2010**
- Secondary analyses:
  - 2010: four reports commissioned by the Agency
  - Datasets available to researchers after launch

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From forecast to foresight

The prediction of events is inherently difficult. Events are the intersect of social vectors (interests, forces, pressures, and the like). While one can to some extent assess the strength of these vectors individually, **one would need a "social physics" to predict the exact crosspoints where decisions and forces combine**.... Forecasting is possible where there are regularities and recurrences of phenomena (these are rare), of where there are persisting trends whose direction, if not exact trajectory, can be plotted with statistical time-series or be formulated as historical tendencies. Necessarily, therefore, one deals with probabilities and an array of possible projections. **But the limitations of forecasting are also evident. The further one reaches ahead in time with a set of forecasts, the greater the margin for error, since the fan of the projections widens.**

Daniel Bell, *The Coming of the Post-Industrial Society* (1973).

“If the only tool you have is a hammer, you tend to see every problem as a nail”

Abraham Maslow

Key outcomes of the Foresight methodologies seminar

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- **Taking into account the demographic, societal and economic context**

  e.g. evolution of the labour market; trends in public attitude towards risks; political agendas and developments, e.g. globalisation or economic crises

- **Multidisciplinarity → new risks are more likely to be identified**
- **Involves stakeholders closely throughout the process → outputs are appropriate for policy- and decision-makers**
- **Aims to stimulate debate and provide insights into ways to shape the future**

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Foresight on technological innovations: green jobs

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- **1st decision: focus on technological innovations**
  - **Because that is one of the areas where we are most likely to be confronted with new risks**
  - **Community Strategy 2007-12: "**the nature of occupational hazards is changing in tandem with the acceleration of innovation**" (...); "**risks associated with new technologies**"**
- **2nd decision: focus on 'green jobs'**
  - **Strong emphasis on innovation (renewable energies, clean technologies)**
  - **Timely: large current & projected growth: potential to affect many workers**
  - **Also some old risks in new guises (in recycling, waste management, *weatherization* / retrofitting)**

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More gold in 1 tonne of scrap from discarded PCs than in 16 tonnes of ore

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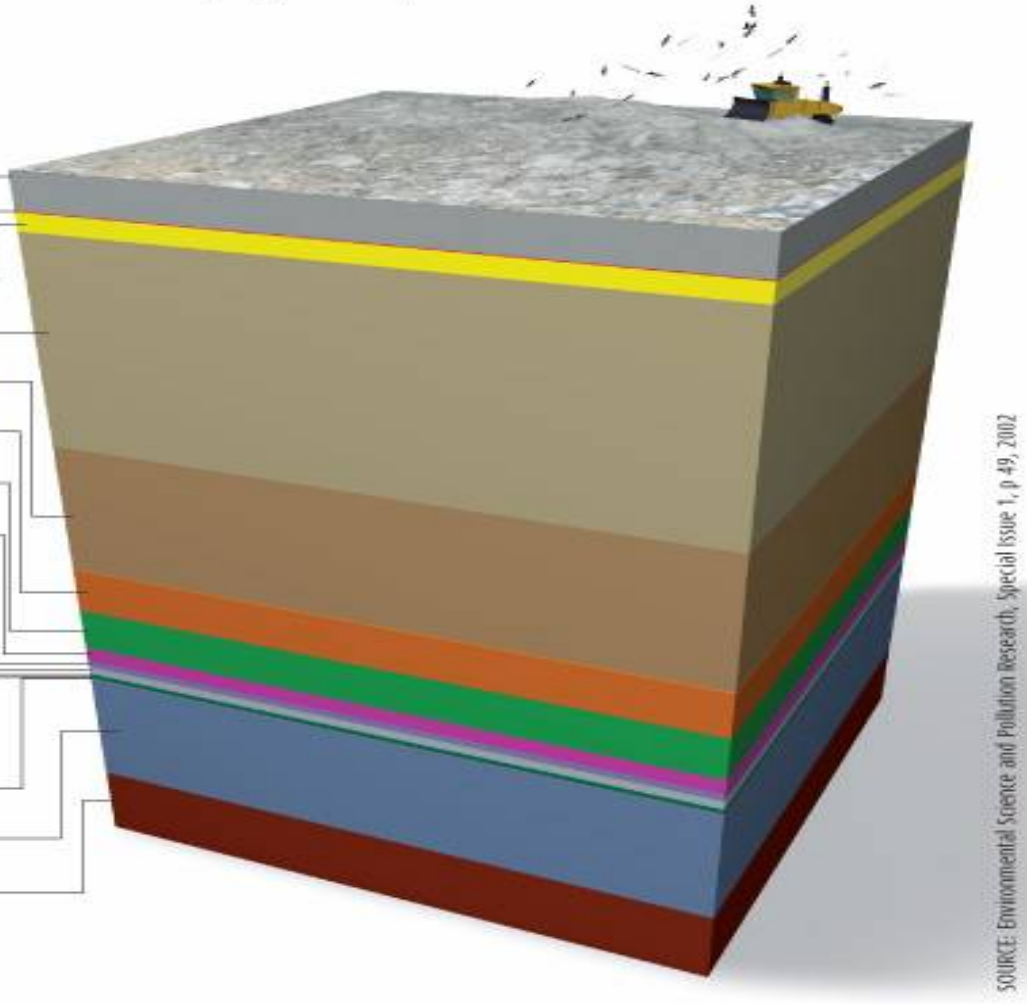
WHAT'S IN A LANDFILL SITE

Composition of waste from a landfill in Måsalycke, Sweden, in 2002



Metal	4.9%
Electronics	0.1%
Hazardous waste	2.4%
Paper	28.7%
Wood	18.6%
Plastic	6.5%
Garden waste	6.2%
Diapers/sanitary towels	2.1%
Textiles	1.2%
Food waste	1.2%
Rubber	0.6%
Leather	0.2%
Glass/ceramics	0.1%
Fine soil-like particles	16.9%
Stones etc	10.3%

SOURCE: Environmental Science and Pollution Research, Special Issue 1, p 49, 2002

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Milestones

- **2009**
  - Preparation & launch of call for tender, selection procedure
  - 1st step: identifying key drivers of contextual change
- **2010**
  - 2nd step: identifying key technological innovations
  - 3 rd step: starting the scenario development
- **2011**
  - Finalising the scenarios
  - Testing and validating scenarios with stakeholders

Beware:

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“As we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns -- the ones we don't know we don't know."

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Healthy
Workplaces

Thank you for your attention

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