DRAFT REVIEW OF ENVIRONMENT AND HEALTH INFORMATION
3ⁿᵈ Draft [11 May 2006]

Adapted from

Consultative Forum meeting

Brussels

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Aim and process

- **AIM: identify key information needs E&H, formulate tasks, plan for implementation of tasks**
- **Process**
  - **Series of MS and CF meetings focusing on four main exposure routes, plus two other issues (background papers issued end 2005)**
    - Ambient air
    - Indoor air
    - Drinking water/bathing water
    - Food
    - Physical stressors (noise, EMF, UV, ionising radiation, others)
    - E&H tracking systems
  - **Consultation of policy units and their technical support**
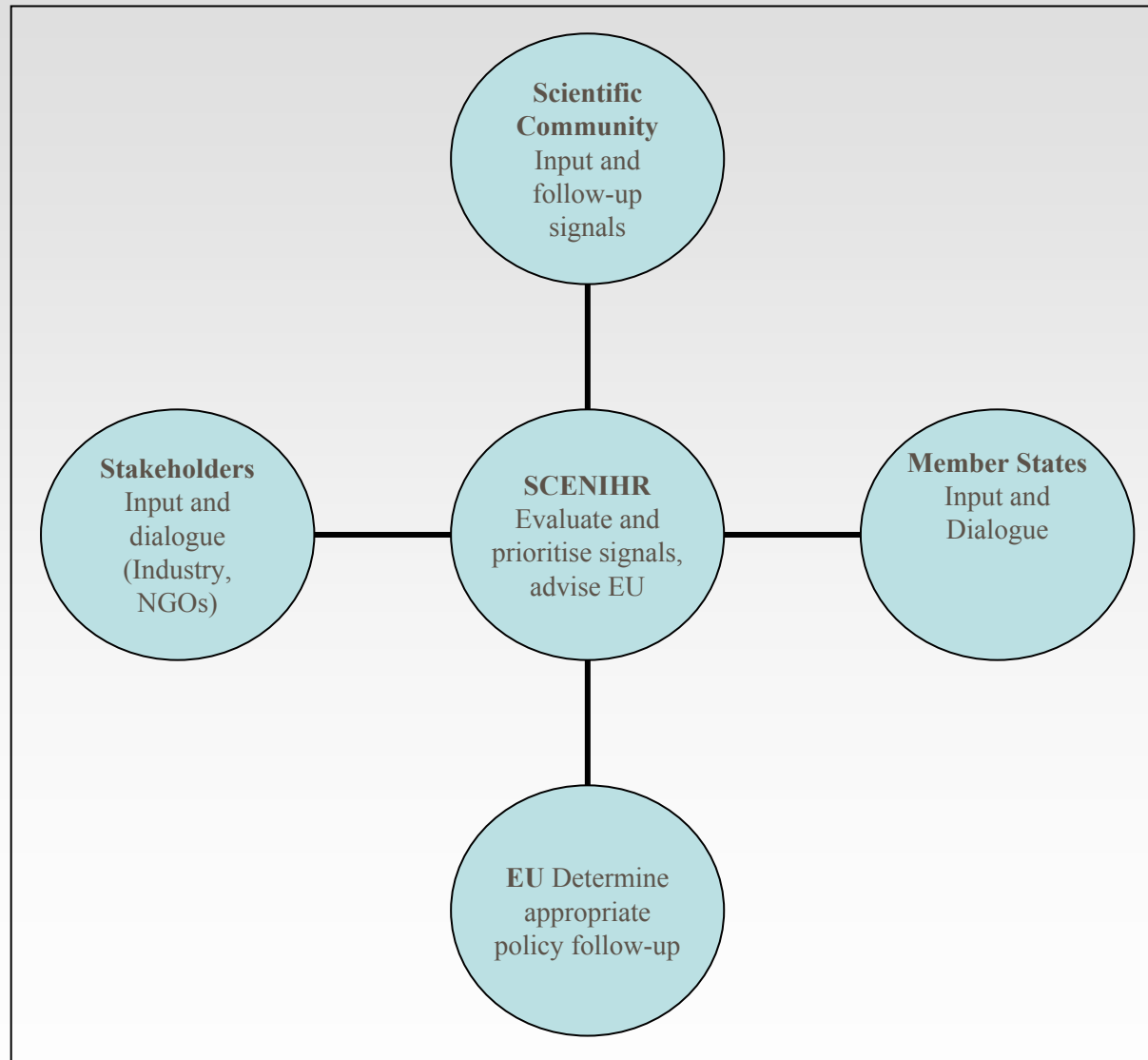
Structure of review

- **Organised around two main policy needs**
    - Identification of emerging issues
    - For known issues, information for prioritisation, policy development, and assessment of policy effectiveness

- **Needs of citizens in principle the same**
    - Are new problems being identified and addressed?
    - What are the biggest issues?
    - What policy measures are needed to address them?
    - How effective are those measures in practice?

- **Transparency – making information accessible to citizens to allow them to participate in the policy process**
    - Shared Environmental Information System (SEIS) – DG ENV (INSPIRE)
    - Public Health Portal – DG SANCO (including ENHIS indicators)

1. Identifying Emerging Issues

- Proposals under discussion in Scientific Committee on Emerging and Newly Identified Health Risks

- Other relevant committees: SCHER, SC on Consumer products, EFSA

- Data linkage projects

Identifying emerging issues 1a:
Mandate under discussion in Scientific Committee on Emerging and Newly Identified Health Risks

Proposed process discussed by SCENIHR

- **Tracking developments in science**
    - Networking between scientific committees
    - Early information from RTD projects
    - Advice from other EU activities (JRC, EEA, EU CDC etc)
    - Feedback from MS activities
    - Collaboration with international bodies
    - Dialogue with EU scientific societies
- **Transparency (**Website, stakeholder forums)
- **A classification system** (main features, ranking)
- **Decision support initiatives** (including algorithm for assessing priorities)
- **Recommendations made to EU, which would determine policy follow-up**

- **Input SCENIHR: Role for Working Party Environment and Health**

Identifying Emerging Issues 1b:
Data linkage for hypothesis identification

Data linkage for screening potential problems

- Linking environment and health information on a spatial basis for hypothesis identification or dissease cluster investigations

Varies in sophistication

- Crude studies taking no account of confounders
- Fairly sophisticated spatial epidemiology, taking account of confounders at individual level

Potential problems – if crude, high rate of false positives and false negatives

- Positive experience in some MSs
- Negative from others
- US EPHT currently in pilot phase, usefulness will be assessed.

Possibilities for support data linkage at EU level

Start with pilot. Possible topics are:

- **Data linkage pilots:**
    - INSPIRE useful but not enough
    - Connecting health information (e.g. registries of rare diseases – FI)
    - Connecting environment information, biomonitoring and health information
        - Bottom-up approach where MSs identify own priorities? (US approach)
        - Some top-down specification of where projects should focus?

- **Development of tools**
    - Adaptation of existing tools so that they can be applied across EU
        - Rapid Inquiry Facility (EUROHEIS)
    - Standardisation of data collection/disease classification etc
    - Producing a set of 'core' tools for general use
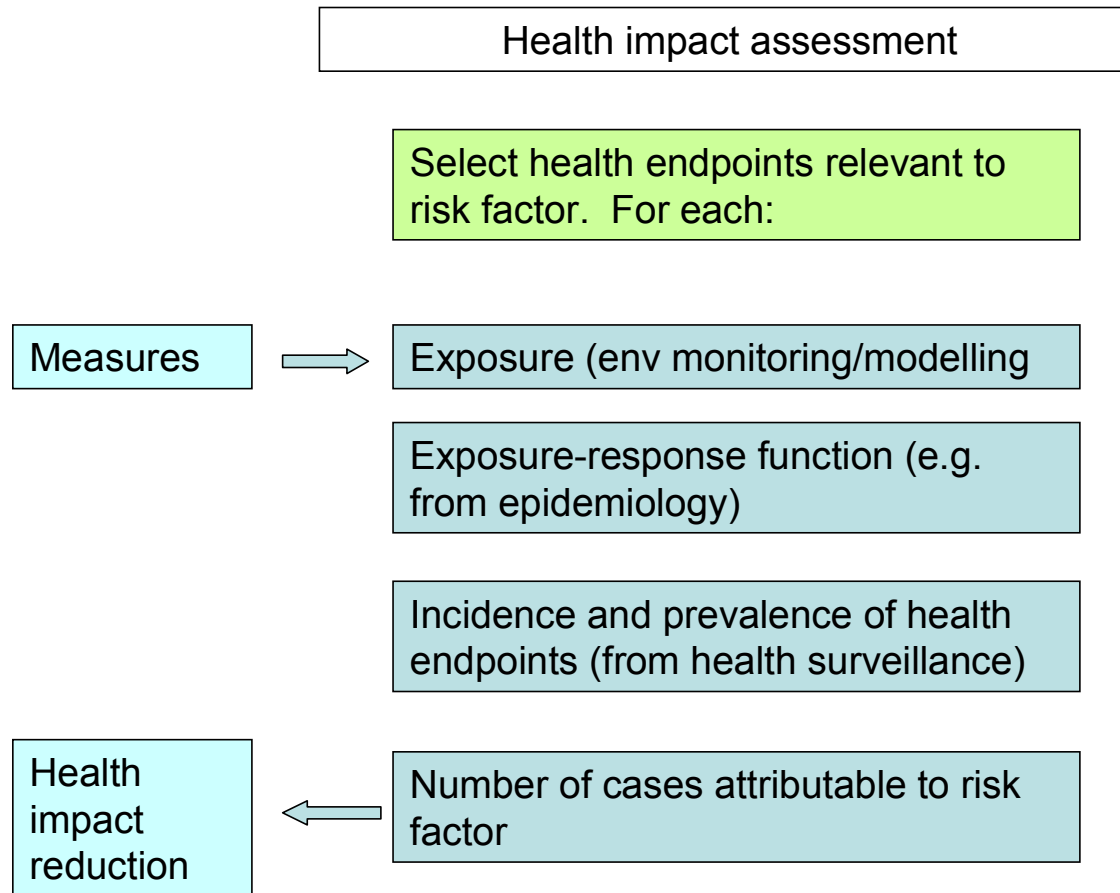   - Spatial analysis techniques

Possible funding sources

- FP7 for research: env informatics, GEO/climate change; both budget line for Env and Health (Process: stakeholders consultation)
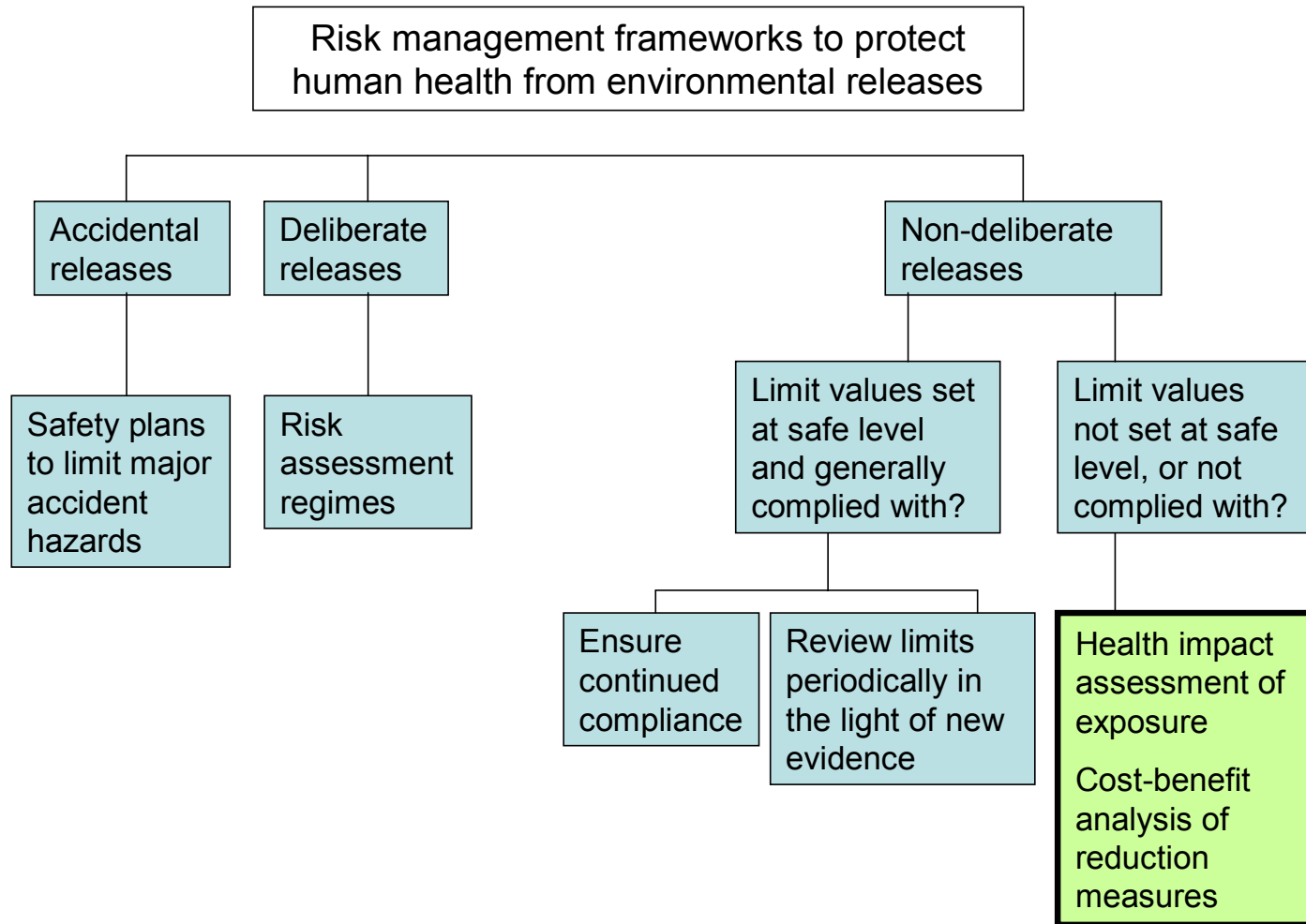- LIFE+: development of informatics tools

2. Identified issues

- Principle exposure routes and issues
- Cross-cutting issues
- Prioritisation

2a Principle exposure routes and issues

Health impact assessment

Select health endpoints relevant to risk factor. For each:

Measures ⟹ Exposure (env monitoring/modelling

Exposure-response function (e.g. from epidemiology)

Incidence and prevalence of health endpoints (from health surveillance)

Health impact reduction ⟸ Number of cases attributable to risk factor

2a Principle exposure routes and issues

Ambient Air Quality

Epidemiology

- **Task 1: Improve infrastructure (superstations and superregions)**
  - Limied support FP7 Research Infrastructure budget line
  - Maybe funding under Integrated Infrastructure Initiatives (existing infrastructures)
  - Possible integration into cohort study below.

- **Task 2: Cohort-Studies on long-term effects**
  - Workshop to identify specifications (21 Jan 2006)
  - Considered in development of Work Programme for E&H aspects of FP7 (incl other exposures too!!)

Ambient Air Quality

Health effects monitoring

- **Task 3: Improve EU-level comparable information on morbidity**
    - **Relevant morbidity information identified**
    - **In discussion with ESTAT on integrating elements into Health Status Module of Health Interview Survey Initiative**
    - **Consider prospects of using Health Examination Survey (feasibility study of DG SANCO)**
    - **Surveys best approach? (Emphasis on hospitalisation data)**

Other recommendations in background paper (exposure, source-receptor relations, toxicology etc)

Food, Drinking Water and Bathing Water

- **Health Impact Assessment not currently practicable**
  - Lack of dose-response functions at ambient exposure levels for Europe
  - Monitoring not optimised for exposure assessment
  - New Bathing Water Directive: epidemiological study of health impacts

- **Current system functions reasonably**
  - Procedure in place for periodic review of limit values:
    - EFSA for food
    - WHO for drinking and bathing water
  - Assessing compliance with limit values should continue to be the priority. Can be improved:
    - EFSA for food monitoring
    - Water Safety Plans (considered in review Drinking Water Directive)

- **Consider prospects for linking food and environment monitoring**
  - Joint meeting of experts rescheduled, probably for 1 or 2 June
  - Mutual alerts and general comparability

Physical stressors

- **Noise – Environmental Noise Directive**
    - **Maps of exposure across Europe by 2007 (EEA?)**
    - **Dose-response functions (END-working group)**
    - **Collect, analyse, report on noise exposures and related impacts across Europe; identify actions with most health benefits**

- **Non-ionising radiation**
    - **Await conclusions of SCENIHR review (summer 2006)**

- **Ionising radiation**
    - **Separate legal framework (EURATOM)**
    - **Basic safety standards under review**
    - **Established consultation process**

Indoor air quality

- **Under review by SCHER**
- **Work with SCHER to identify relative scale of problems**
- **Identify key pollutants in major public indoor environments**
  - **Transport-related environments**
  - **Schools/kindergartens**
- **Study to assess whether surveillance monitoring is needed for policy development**
- **Evaluate Member States' current practice wrt indoor air quality in private homes**
  - **Type of measurements needed to obtain exposure levels**
  - **Organise exchange of this information**

2b Cross-cutting issues

- **Exposure to same stressor through a range of exposure routes**
    - **Often one exposure route predominates**
    - **Taken into account in standard-setting**
    - **Keep new methodological developments under review (INTARESE)**
- **Exposure to multiple stressors from the same economic sector**
    - **Integrated assessment modelling applied for transport (noise, AQ)**
    - **Also applied for other sectors and exposures (industry, heavy metals, POPs)**
    - **Application to small exposures difficult – large uncertainties**
- **Effects of combined and cumulative (low-level) exposures**
    - **Potentially very significant issue**
    - **Research: Focus on suites of pollutants to which vulnerable groups are exposed.**
    - **Satrted under FP6, continue under FP7.**

2c Prioritisation

- **Estimates for environment-related disease burden range from 2-20%**
    - OECD 2-6% of burden of disease
    - May be underestimation
    - Ambient air/noise the most significant

- **Task to improve/harmonise HIA and Environmental Burden of Disease methodology (FP7?)**
- Limitations of knowledge
    - In particular, unexplained increasing health trends (asthma, childhood cancer, fertility)
    - Causes may be in part environmental
    - **Research: identify major factors (FP7) , improve diagnostic criteria (PHP DG Sanco)**
    - Once these are known, and if environmental: policy priority
- **Scope for large-scale intervention study (FP7?)**

Conclusions

- Emerging issues, support development of SCENIHR process

- Data linkage
  - **Possibly pilot at EU level – data linkage projects and tool development**
  - **How much EU-level guidance needed?** *Role for WP H&E?*

- Health Impact assessment
  - Only useful for non-attainment issues
  - **Improve /harmonise methodology**

- Surveillance monitoring
  - **Not practicable to move towards exposure assessment**
  - **Retain compliance-based approach and improve as necessary (e.g. Water Safety Plans)**
- Information systems and exchange
  - Facilitate data flows to ENHIS-2
  - Improve information exchange on environmental, biomonitoring, health surveillance and intervention studies

- Details on implementation of individual actions in annex