United Nations Institute for Training and Research

Guidance for Developing a National Nanotechnology Policy and Programme

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Possible steps for a national nano policy and programme

1. Preparatory activities including stakeholder group
2. Inception meeting and awareness raising
3. Nano assessment
4. Selection of priority areas
5. National nano policy including coordination and structure
6. Training of stakeholders
7. Adoption of policy and endorsement
8. Stepwise implementation
9. Periodic reporting and amending of the nano policy

Situation Assessment: Products and Producers

Is there knowledge about:

Research institutions working with nano?

Industries working with nano?

Economic sectors using nano?

Nano containing products?

Situation Assessment: Information and Infrastructure

Is there a:

Legally required or voluntary registration for nanoproducts?

A review of activities involving nano?

A technical infrastructure for dealing with safety aspects of chemicals?

Can this infrastructure deal with nano?

Knowledge about the involvement of international organizations (ISO, OECD, SAICM, UNITAR, WHO, etc.)?

Situation Assessment: Governance

Is there a:

Coordination mechanism for chemical safety?

Can this mechanism deal with nano?

An interministerial commission?

A framework of legal, economic, and voluntary instruments to deal with chemical safety?

Can this framework deal with nano issues?

Stakeholder involvment?

Situation Assessment: Available Management Options

Is there information on:

Health and environmental effects of nanomaterials?

Possible exposure to nanomaterials (workers, consumers, environment)?

Benefits of nanoproducts?

Resource needs for risk management?

Resource availability for risk management?

Priority setting for nano:

What are the most important issues? Then consider:

1. Is the number of priorities realistic?

2. Feasibility: Can the problem be efficiently addressed?

3. Is the timeframe realistic?

4. Are the stakeholders committed?

5. Potential for support from outside, e.g. IGOs?

6. Economic impact of all parties involved throughout the life cycle?

7. Evaluation: Is it possible to measure progress?

Establishing a Coordination Mechanism:

Decide on involvement of:

Which ministries?

Which scientific institutions?

Which stakeholders (industry, business, labor, civil society)?

Which decision-makers?

Stakeholder Training:

Who needs to be trained:

Industrial scientists?

Health specialists?

Environmental specialists?

Research workers?

Industry workers?

Customs?

Protective measures for workers (SUVA Switzerland)

Basic Principles: Minimization of exposure

1. Reduce the exposure time;

2. Reduce the number of exposed workers;

3. Reduce the concentration of nano particles at the workplace

Protective measures for workers (SUVA Switzerland)

Hierarchy of protective measures

There are 4 levels of measures:

a) *Substitution:* Replace hazardous substances by less hazardous alternatives.

b) *Technical collective measures*: Technical measures for monitoring, limitation and removal of dangerous gases, vapors and dusts and aerosols

c) *Individual protection*: Use of personal protective equipment (masks with filter P3, gloves, closed eye glasses).

d) *Hygiene:* Possibilities for decontamination by washing (water, soap, shower);
wear different clothes inside working area and home.

Establishing an action plan

1. Identify the problems
2. List the activities
3. Establish working groups
4. Ensure coordination
5. Consider an information system or a data base
6. Estimate realistic tame frames
7. Develop mile-stones
8. Establish indicators of progress
9. Agree on a budget
10. Obtain high-level agreement
11. Implement the action plan
12. Monitor the progress

Thank you / Gracias

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