

# The Swiss Action Plan on Synthetic Nanomaterials: State of implementation

Georg Karlaganis  
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# Objectives of the Action Plan

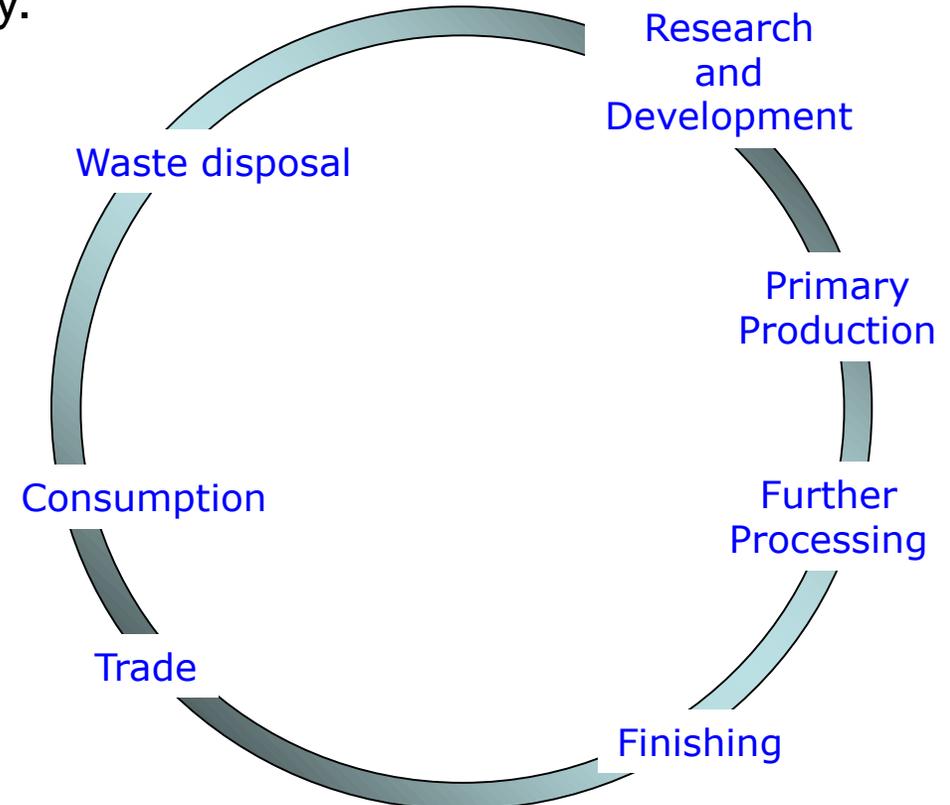
- **Creating the framework for a responsible handling** of synthetic nanoparticles
- **Creating scientific and methodological conditions** to recognise and prevent possibly harmful effects of synthetic nanomaterials on health and the environment
- **Promoting public dialogue** about the promises and risks of nanotechnology
- **Better use of existing promotional instruments** for the development and market launch of **sustainable applications** on nanotechnology





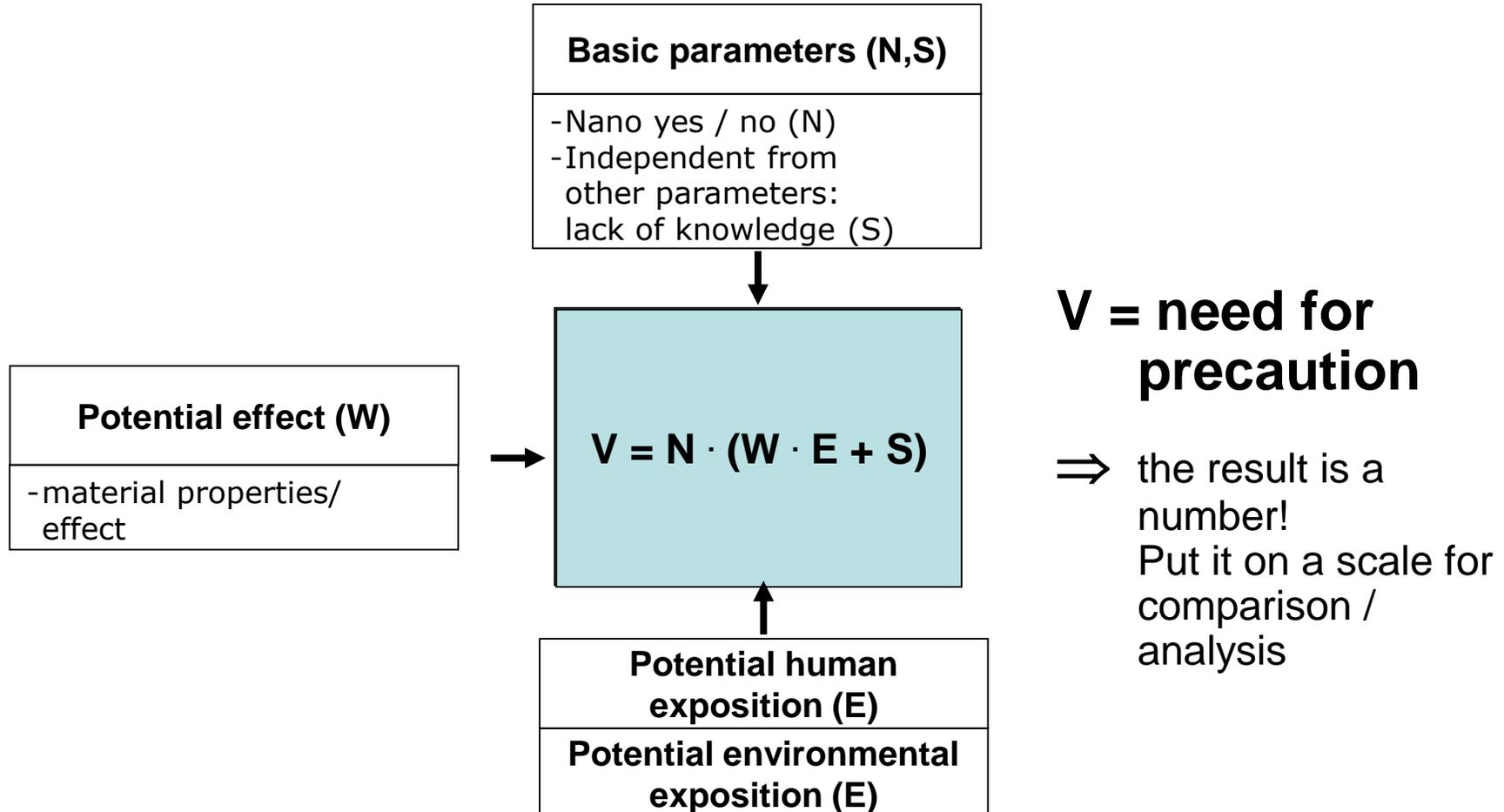
## The Precautionary Matrix

- is a method for determining “nanospecific risk“ of synthetic nanomaterials and of their applications.
- is a voluntary measure that can be taken into account within the framework of individual responsibility.
- allows a comprehensive view of the nanospecific risks connected to synthetic nanomaterials.
- in its latest version 3.0 offers improved evaluation of material reactivity, potentially missing data, as well as recommendations on further clarification.
- is available online at [www.infonano.ch](http://www.infonano.ch)





## Rating Criteria





## Ranking

Points	Ranking	Significance
0 - 20	A	The nano specific risk can be ranked as minor, even without the presence of further risk investigations.
> 20	B	Nano specific risk cannot be ruled out. There is a need for further risk determination or risk reduction measures addressing production, usage and disposal, which are recommended in terms of the precautionary approach.



# Dialoge Platform – Consumer Information about Synthetic Nanomaterials in consumer goods

Participators: consumers' interests organisations, industrial associations, retail business, administration

Ideas for general consumer information:

Informationskanal	Einstiegs- und Überblicks-Informationen
Internetplattform	Zentrale <b>Internetplattform</b> von Behördenseite (BAG) zur schnellen Orientierung mit neutralen Basisinformationen. Inhalt: Funktion und Sicherheit von Produkten mit synthetischen Nanomaterialien und von Nanotechnologien allgemein, Zuarbeit durch alle Stakeholder.
Medien	<b>Dokumentarfilme, Wissenschafts-/Technik-Shows</b> und <b>Zeitungs-artikel</b> mit Grafiken und Animationen. Inhalte: Funktion und zur Sicherheit von Nanotechnologien und Nanomaterialien, anschaulich und einfach vermittelt. <b>Medienkonferenz</b> zur Information über die Konsensplattform und weitere Aktivitäten der Teilnehmenden
Öffentliche Veranstaltungen	<b>Messestände</b> mit Informationsmaterialien und Präsentationen und Shows für die Öffentlichkeit
Schulen / Universitäten	Erweiterung von Lernangeboten und Unterrichtsmaterialien für Schüler und Studierende

Projekte und Wettbewerbe für Schüler und Studierende

Results:

The recommended coordinated website platform will be reduced to practice within the framework of “communication and promotion of the public dialogue“.



### Ideas for product specific consumer information:

Informationskanal	Einstiegs- und Überblicks-Informationen
Labeling / Kennzeichnung / Deklaration	(nano)-Kennzeichnung als Ausgangspunkt der Informationsstaffelung (siehe Kosmetik-Direktive, Übertragbarkeit auf andere Branchen ist zu prüfen)
Verpackung / Beipackzettel	Einfache Hinweise über Funktion, Gebrauch, Reinigung / Wartung, Entsorgung; Hinweise für Risikogruppen.
Point of Sale (POS)	<b>Einfache Produkthinweise</b> über Funktion, Gebrauch, Reinigung / Wartung, Entsorgung.
Internet	Einfach verständliche <b>Informationen der Hersteller zum spezifischen Produkt</b> über Funktion, Gebrauch, Reinigung / Wartung, Entsorgung mit Grafiken, Animationen und einfachen, kurzen Texten <b>Überblicksseiten</b> der Verbände und des Detailhandels mit einführenden Wissensseiten, FAQs und Links zu Unternehmen mit Konsumenten-Informationen
Produkt-Infoline	Einfache, konsumentennahe Informationen zu Nano-Produkten von Herstellern oder Konsumentenorganisationen

### Results:

According to the NANO dialogue platform, the labelling question also comprises an in-depth analysis, **what kind of label** is suitable for **different sectors** (hazard-based labelling; information labelling).

Without definitions of nanomaterials and a solid basis for hazard and risk assessment, the labelling issue is difficult to tackle.

Swiss labelling efforts must be designed in compliance with the EU, in order to avoid technical trade barriers for Swiss products within the European markets.



No common position and recommendation

# Swiss Action Plan: Table of Content 1

## Analysis of the situation

- 2.1 Communication and promoting dialogue
- 2.2 Effects on humans and the environment
- 2.3 Health protection at the workplace
- 2.4 Developing methods for measuring and testing:  
standardising terminology
- 2.5 Risk assessment and regulation
- 2.6 Benefits of nanotechnology to consumers,  
employees and the environment

# Swiss Action Plan, Table of Content 2: Measures

- 3.1 Communication and promotion of public dialogue on the opportunities and risks of nanotechnology
- 3.2 Creating scientific and methodological conditions to recognise and prevent possible harmful impacts of synthetic nanoparticles on health and the environment
- 3.3 Creating regulatory framework conditions for the responsible handling of synthetic nanomaterials
  - 3.3.1 Phase 1 (short and medium term): Strengthening the industry's own responsibility
  - 3.3.2 Phase 2 (medium and long term): Creating statutory framework conditions for the safe handling of synthetic nanomaterials
- 3.4 Better use of existing promotional instruments

# Swiss Action Plan, Table of Content 3: Appendices

- 4.1 Communication and the promotion of public dialogue about the opportunities and risks of nanotechnology
  - 4.1.1 Technology Assessment (TA)
- 4.2 Creating the scientific and methodological prerequisites for recognising and preventing possible harmful impacts of synthetic nanoparticles on health and the environment
  - 4.2.1 Research promotion
  - 4.2.2 Standardisation of terminology, definitions, and methods for testing, measuring and evaluation

# Swiss Action Plan, Table of Content 4: Appendices

- 4.2.3 Health protection at work
- 4.3 Creating a regulatory framework for the responsible handling of synthetic nanomaterials
  - 4.3.1 Synthetic nanomaterials under REACH
  - 4.3.2 “Risk matrix” for products and applications using synthetic nanomaterials
  - 4.3.3 Voluntary measures by the industry: Codes of Conduct and risk management systems

# New Swiss legal requirements for nanomaterials (1): Definition of the term nanomaterials

**Chemicals Ordinance (ChemO, SR 813.11), Article 2,  
paragraph 2, letter q**

**Nanomaterial means a material containing particles in an unbound state or as an aggregate or as an agglomerate, where one or more external dimensions is in the size range 1-100 nm, or a material where the specific surface area by volume is greater than 60 m<sup>2</sup>/cm<sup>3</sup>. A material is only considered to be a nanomaterial if it is deliberately produced to utilise the properties arising from the defined external dimensions of the particles it contains, or from the defined surface area by volume of the material. Fullerenes, graphene flakes and single wall carbon nanotubes with one or more external dimensions below 1 nm are considered to be nanomaterials.**

## **New Swiss legal requirements for nanomaterials (2)**

### **New reporting requirements**

### **Chemicals Ordinance (ChemO, SR 813.11), Article 49**

The registration application must contain the following data:

#### **For substances in the case of nanomaterials:**

the composition, particle form and mean particle size and, where available, the number size distribution, specific surface area by volume, crystal structure, aggregation status, surface coating and surface functionalisation,

## New Swiss legal requirements for nanomaterials (3)

### New reporting requirements

## Chemicals Ordinance (ChemO, SR 813.11), Article 49

The registration application must contain the following data:

in the case of **preparations containing nanomaterials**:  
the composition of the nanomaterials, the particle form and mean particle size and, where available, the number size distribution, specific surface area by volume, crystal structure, aggregation status, surface coating and surface functionalisation.

## New Swiss legal requirements for nanomaterials (4)

- Nano-specific data requirements were introduced in the **Plant Protection Products Regulation** (PSMV, SR 916.161, Appendices 5 and 6)
- Nano-specific data requirements were introduced in the **Ordinance on Biocidal Products** (OBP, SR 813.12; Article 9, paragraph 3; Article 11, paragraph 1, letter d; Article 11*h*, letter c; Article 38, paragraph 3, letter g).
- Since October 2012, Nanomaterials must be declared in authorization applications for **pharmaceuticals**.

# Legal work in progress in Switzerland

- The assignment of nanomaterials to existing substances, new substances and preparations according to the Swiss chemicals regulation leads to uncertainties. Therefore, a revision proposal for the ChemO will be worked out in order to place **nanomaterials under the notification procedure for new substances** (ChemO, SR 813.11, Articles 16 to 19).
- Detailed rules for nanomaterials will be prepared for the Swiss food law to comply with EU regulations for **food and cosmetics** (middle of 2016).
- **Reporting requirements** will be drafted for enterprises which manufacture and process nanomaterials in order to improve **workplace safety**. Inspection by authorities will be possible.