



- *Regulatory mechanisms and frameworks for emerging pollutants: Priorities and needs*

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What is the problem?

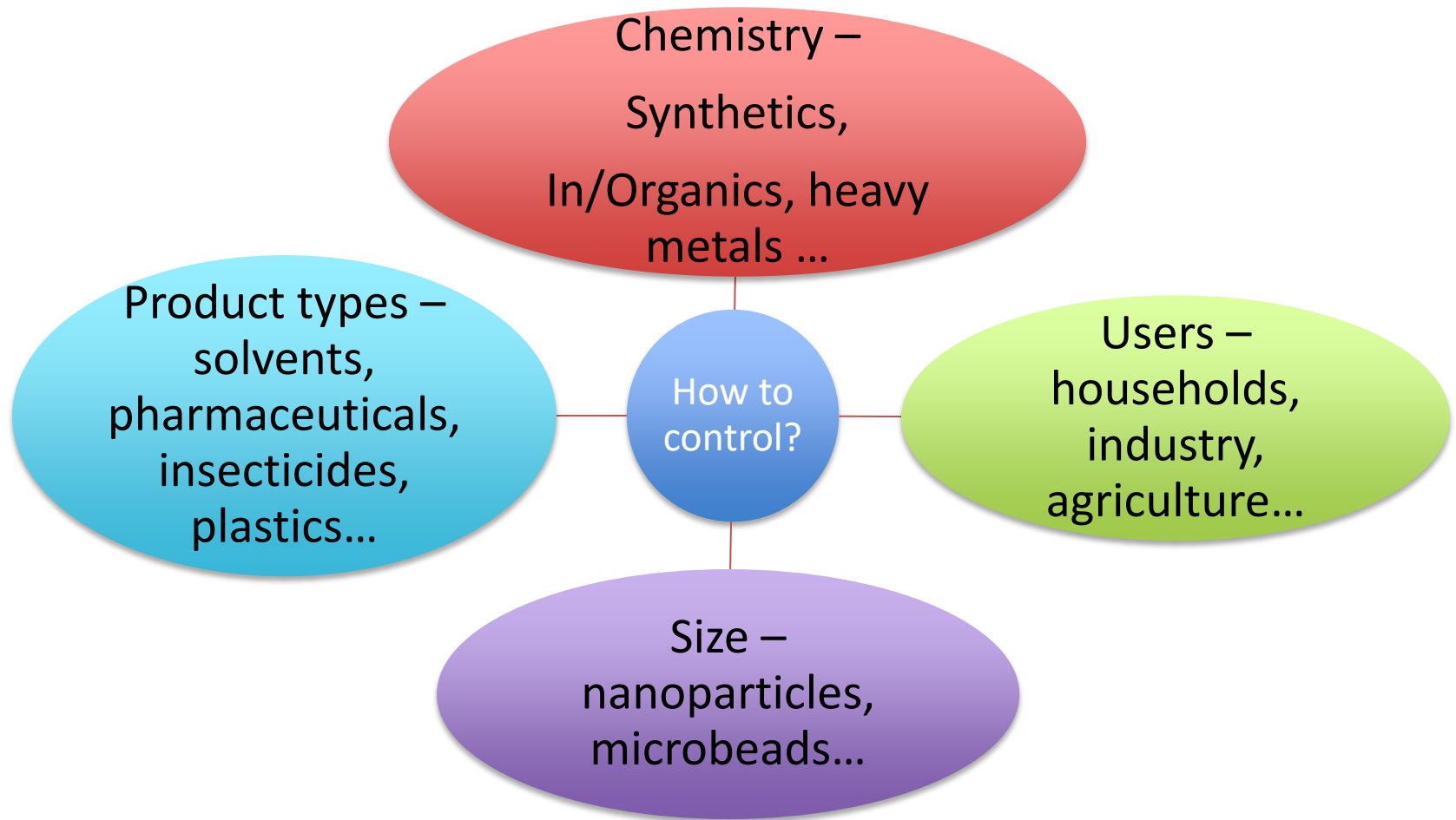
Emerging understanding:
Combinations at low levels

Scale: 100,000's substances /
products registered in EU

300mt synthetics discharged
annually;
500t antibiotics in EU
agriculture;
400 active pesticides

NORMAN list 1036 entries;
WHO / UNEP 800 endocrine
disruptors;
EU Priority Substances controls 45

Multiple typologies....



Sources and Pathways

Human wastes

- WWTP? Large / municipal? Small onsite?
- Untreated? 90% in developing countries
- Household chemicals, PPCPs

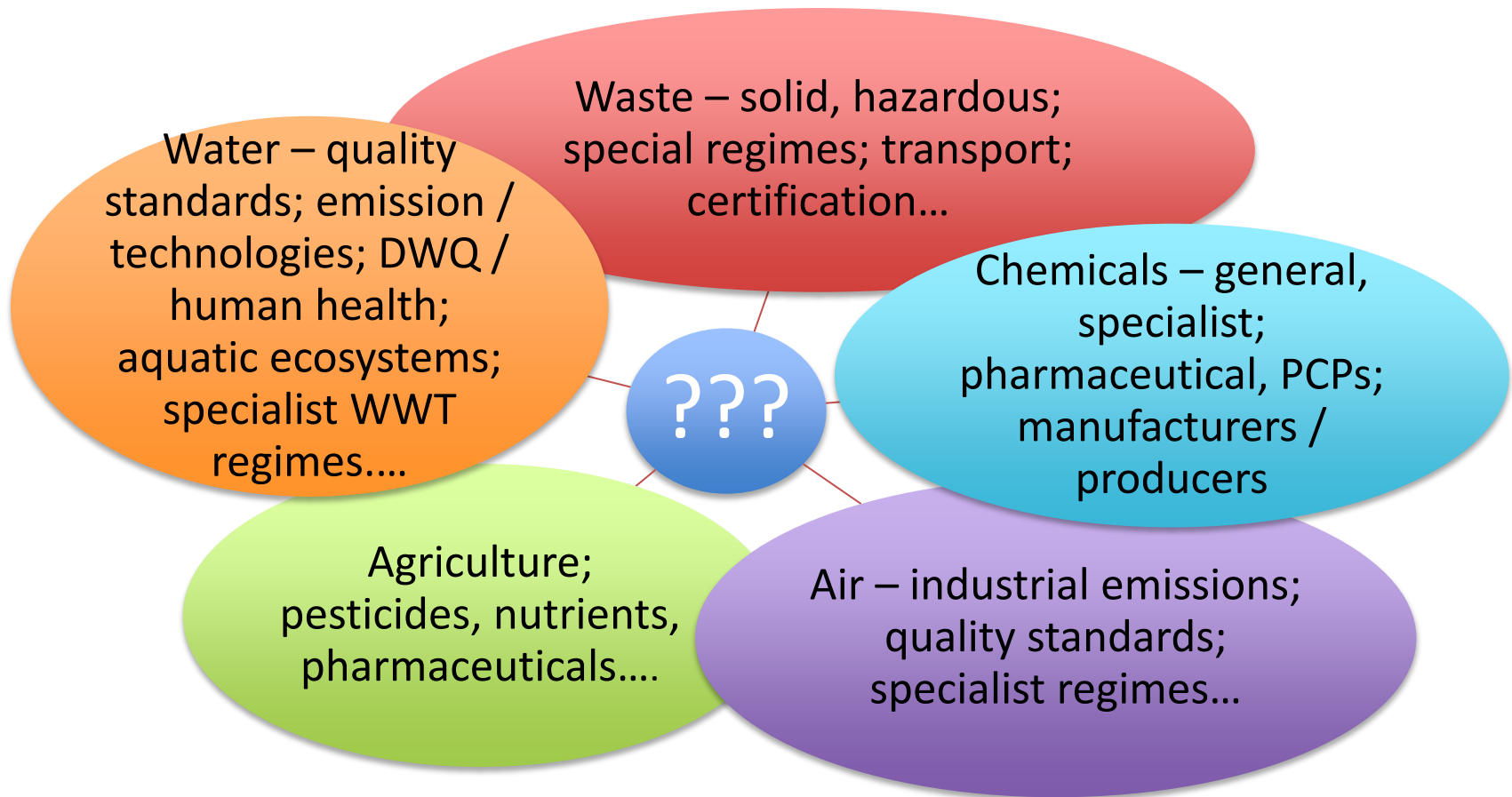
Agri / animal wastes

- Pesticides, pharmaceuticals
- WWTP?
- Surface runoff; air pollution

Industry /traffic / solid waste

- Air pollution, solid waste management
- Diffuse urban pollution
- Also to aquatic environment...

Multiple control regimes ...



International Frameworks

General Policy

- Agenda 21
- Johannesburg Declaration
- Sustainable Development Goals

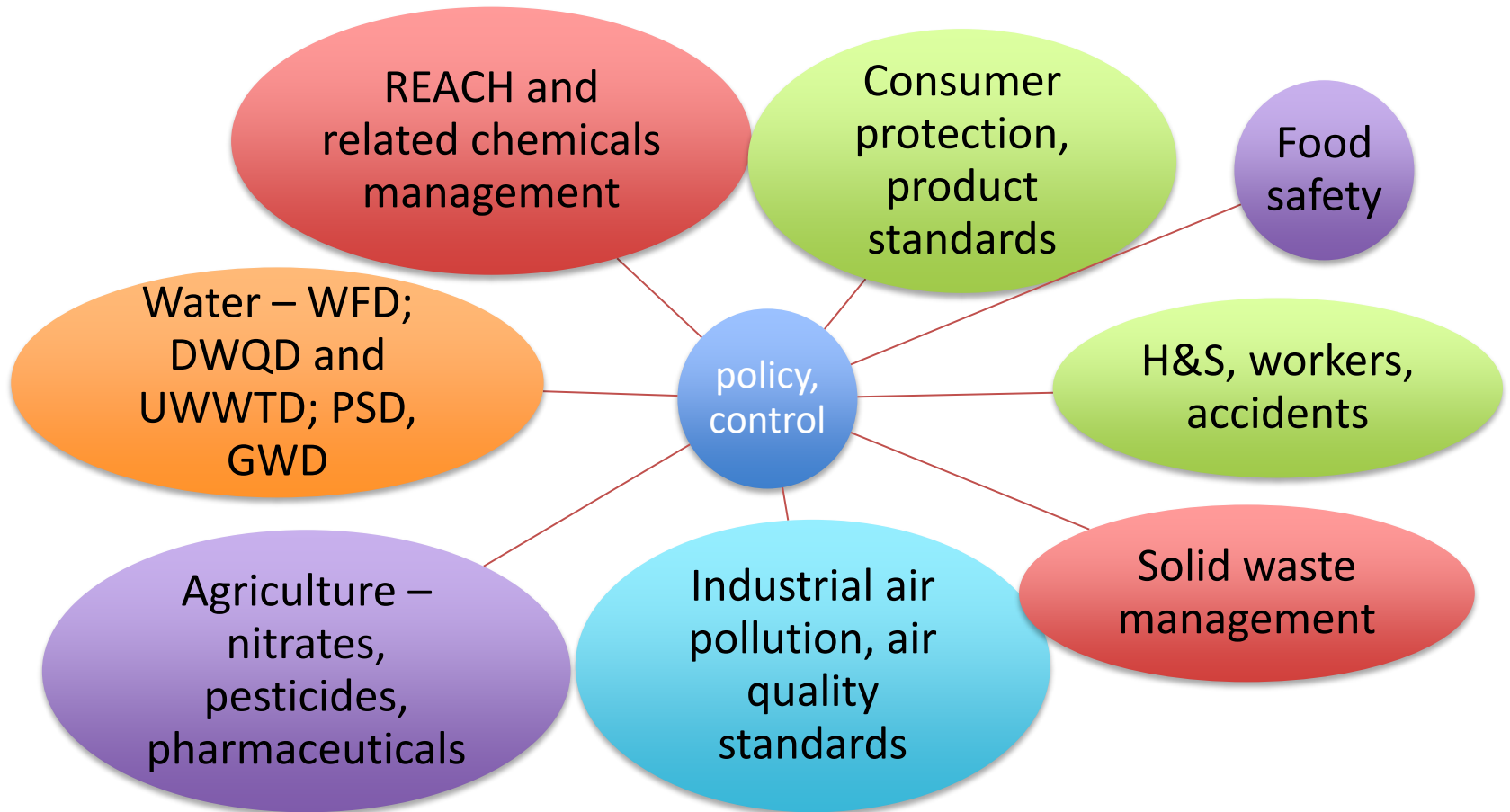
Specific Policy / Strategy

- UNEP Strategic Approach to International Chemical Management
- WHO International Programme on Chemical Safety

Conventions and Standards

- Chemicals Conventions – Basel, Rotterdam, Stockholm
- Geneva LRTAP Convention & Protocols
- ILO –H&S, Industrial accidents
- UN/ECE – Classification/ Labelling

EU frameworks



EU water law – UWWTD and PSD

UWWTD – secondary treatment as norm

Some countries, larger WWTP have tertiary treatment

Revision of PSD – ‘watch list’

Precautionary principle?

Liability? Responsibility...

- Wicked problem...
- Polluter pays; user pays; Prescriber pays?
- Water services providers? Health services?
- Consumers? Education, awareness... simple messages – just use less?
- Product control? Manufacturers – evidence base?
- Multi-pronged approach – need to recognize scale and take precautionary approach