
caLIBRAte System of systems

An outline of

the Nano Risk Governance Portal

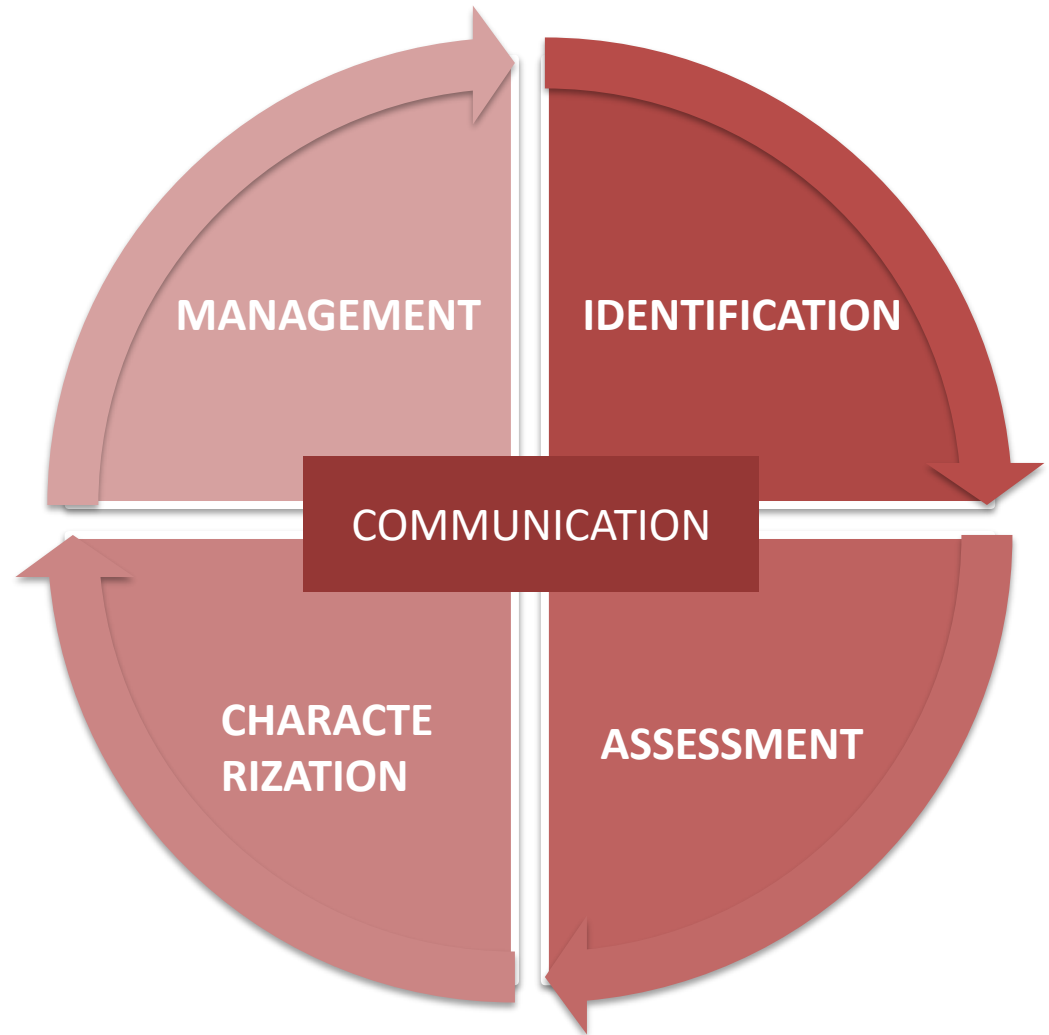
Contributors

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Risk governance

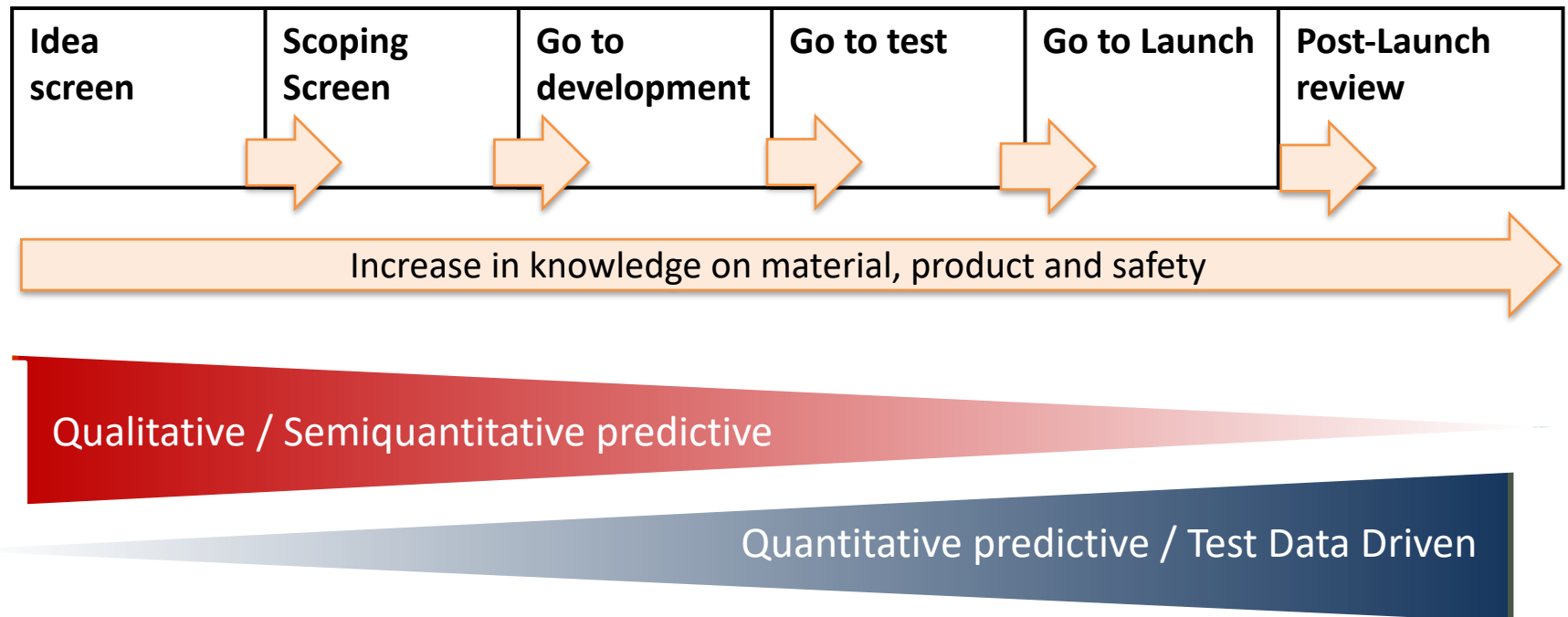
applies the principles of governance to the **identification, assessment, management, evaluation and communication of risks** in the context of plural values and distributed authority.



Source: IRGC, 2017

Risk Governance along the R&I value chain

Building and maintaining confidence in the risk assessment for trustworthy risk communication and governance, all along product development



Source: caLIBRAte and Cooper Stage Model

The vision of the Nano-Risk (Innovation) Governance Portal

A one-stop shop for a safe use of nanomaterials and nano-related products.

Giving access to research, industry and policy makers to qualified and trustworthy information on risk appraisal, management and communication of nanomaterials and nano-related products.

The value proposition of the Nano-Risk (Innovation) Governance Portal

- **A web-based platform providing qualified models, data and guidance to assist in the identification, assessment, management and communication of risks**
- **Including case studies, and updated databases on hazard and exposure measurement data**
- **Providing guidance and good practice on R&I, industrial production**
- **Aligned with existing regulation (focus on REACH and workplace)**
- **Based on state-of-the-art knowledge, thoroughly tested and validated**

The target domains and users

Users

- Safety and risks Managers, Consultants
- CEOs/R&D Managers/Coordinators/Planners
- Regulators, authorities, inspectors
- Insurers
- Researchers/Technicians
- Workers and users representatives

Risk domains

- Workers (R&D labs)
- Workers (All)
- Environment
- Users & Consumers
- Waste/end-of-life
- All Life Cycle

Focus on tech development organizations and companies producing and using nanomaterials in their manufacturing processes

Most significant properties of the NRGP

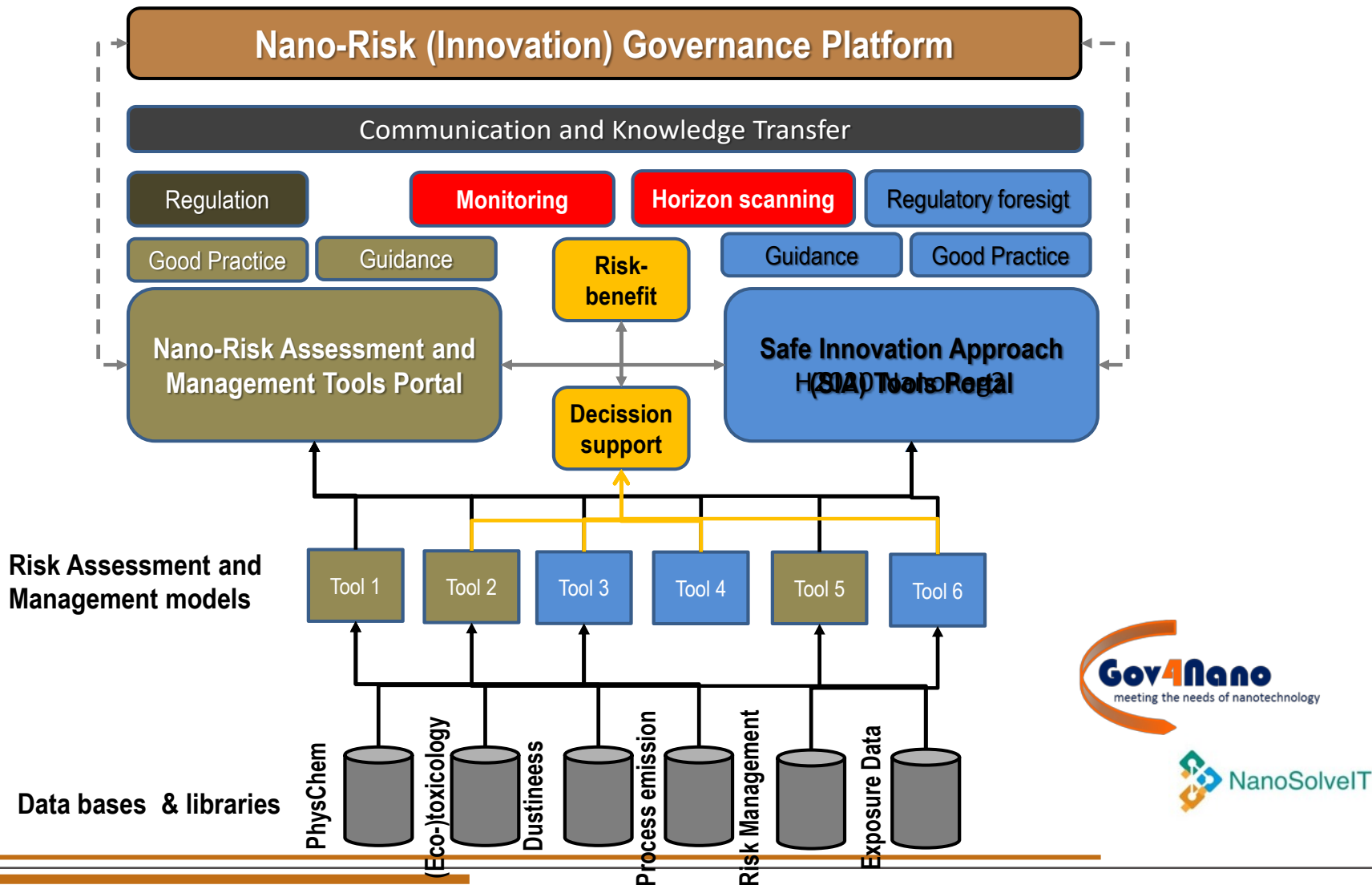
Integrated, validated access to state-of-the-art screening and supporting data, models and guidance to assist risk governance of nanomaterials, including

- Early warning, through horizon scanning
- Identification of risk scenario
- Risk assessment, including for human and environmental exposure, hazard, and risk characterization considering different exposure and release scenarios
- Risk management, providing guidance on safe handling, use and disposal of NMs and nano-products
- Risk-benefit evaluation in application and use
 - Long-term monitoring of NMs impacts on public health & environment
- Supporting regulatory compliance, in the first place regarding REACH and occupational health and setting

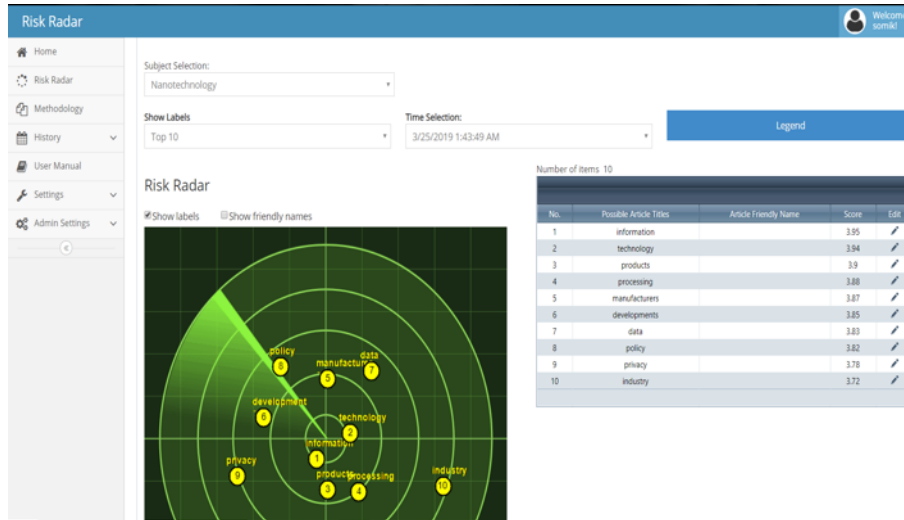
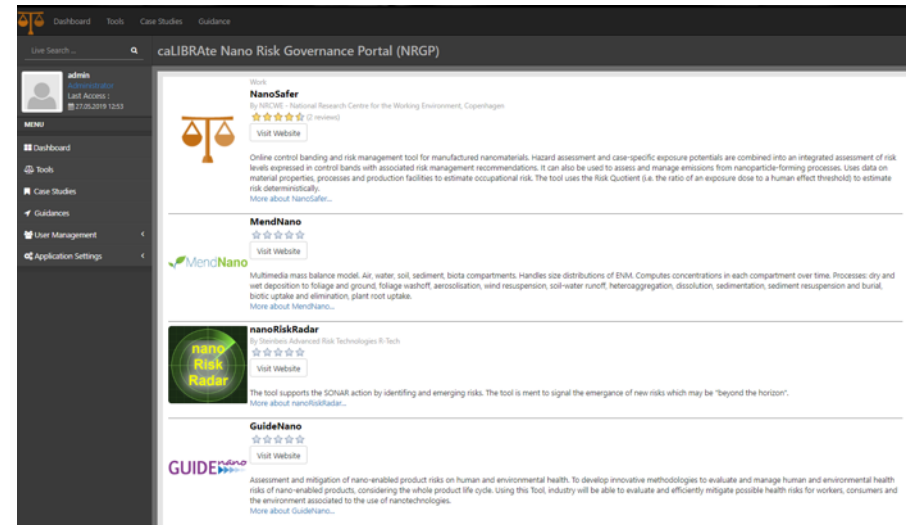
Example of models integrated in the NRGP

Models and application domains	Workers (labs)	Workers (All)	Users & Consumers	Environment	Waste/end-of-life	All Life Cycle
Stoffenmanager Nano		✓				
LICARA nanoscan		✓	✓	✓		✓
Swiss Precautionary Matrix		✓	✓	✓	✓	
GUIDEnano		✓	✓	✓		✓
Nanosafer CB		✓				
Control banding nanotool	✓	✓				
SimpleBox4Nano (SB4N)				✓	✓	✓
SUNDS		✓	✓	✓		✓

The approach to databases and models integration (within caLIBRAte and across projects)



Screen shots

The screenshot shows the caLIBRAte Nano Risk Governance Portal (NRGP) interface. It features a search bar, a user profile (admin), and a menu. The main content area displays a list of tools with their logos, names, and brief descriptions.

- NanoSafer**: Online control banding and risk management tool for manufactured nanomaterials.
- MendNano**: Multimedia mass balance model. Air, water, soil, sediment, biota compartments.
- nanoRiskRadar**: The tool supports the SONAR action by identifying and emerging risks.
- GuideNano**: Assessment and mitigation of nano-enabled product risks on human and environmental health.

Nano Risk Radar (Horizon scanning)

Tool catalogue in NRGp

Steps forward

- Models validation (including testing via case studies) is almost completed
- Integration into the portal (unique entry to all models) on-going
- User interfaces will be developed and tested in the coming months
- Beta version will be ready by September

The NRGP will be officially launched in October 2019

