

TOWARD A RESPONSIBLE DEVELOPMENT OF NANOTECHNOLOGIES IN FRANCE

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Nanotechnologies have the potential to profoundly transform all the most important industrial sectors and everyday life. However, the hopes pinned on this emerging technology - better therapies or clean technologies for instance - will fully materialize only if its development takes place responsibly. Despite some progress in manufactured nanoparticles characterization, impacts of its large scale diffusion on human health and the environment are still largely unknown, while more and more products containing nanoparticles are commercialized. The application of nanotechnology in specific sectors (medicine, security, etc.) and the convergence of technologies also give rise to ethical, legal and societal issues.

How can we ensure a development of these technologies in line with societal needs and demands?

Some proposals can be made for a responsible development of nanotechnologies:

- To prevent health and environmental risks in three ways: stabilization of materials from their design ("safe by design" approaches), measurement and tracking of nanoparticles, control of exposure;
- To support the creation of an intergovernmental panel on nanotechnology-induced change, which would engage with key stakeholders and the public to develop a multidisciplinary risk assessment methodology;
- To promote a greater public involvement in nanotechnology policy development.

It is increasingly clear that the quality of innovation will depend on the quality of governance, and of our ability to collectively question the benefits and risks of nanotechnologies.

REFERENCES

Teillant, A. *For a responsible development of nanotechnologies*, Centre d'analyse stratégique (2011)