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2009-2012





MINISTÉRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE





#### State-of-play (1)

- France: 5-6<sup>th</sup> in the S&T publication rankings, 4<sup>th</sup> rank for attractiveness of higher education
- First S&T partners (publications): USA, United Kingdom, Germany; France is oriented towards Europe.
- Very good reputation in fundamental sciences (maths, physics, archeology...)
- Long-term strategic orientations: nuclear energy, space, transport, defence, agriculture

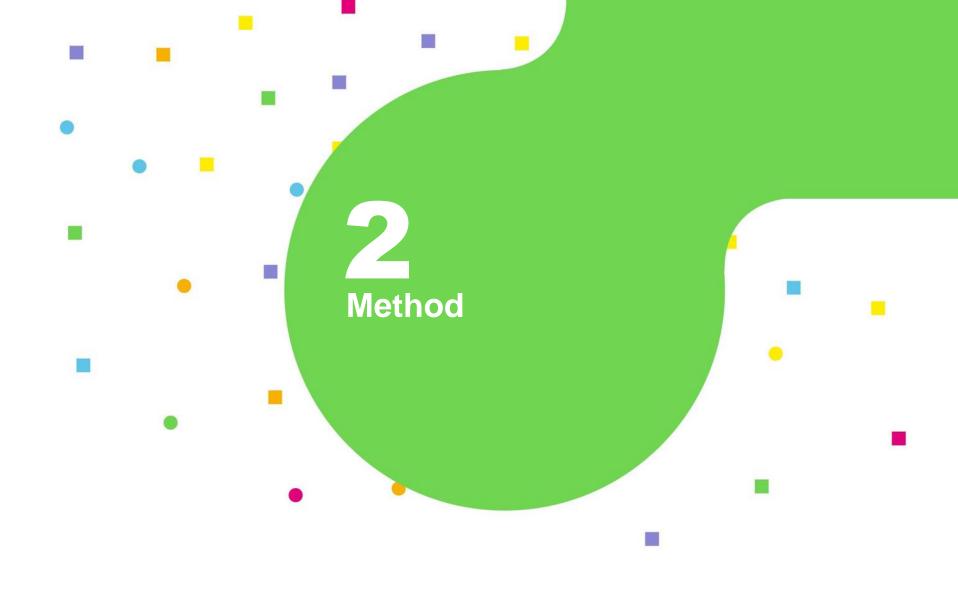
#### State-of-play (2)

- Difficulties to seize innovation sectors (biotechs, ICT, ...)
- A public system lacking readibility and good governance
- Universities with limited competencies
- Lack of connection between economy and research
- Lack of dialogue with society



#### **Objectives**

- To define big orientations for France
  - ◆To push the frontiers of knowledge
  - ◆To answer a demanding society
  - ◆To address environmental urgency
  - ◆To support the national economy
- **▼**To identify key technologies
- To put again science in the center of the society



#### Concept

- Governmental project (Ministry of higher education and research in collaboration with other ministries)
- Delivrable: Publication of a strategic report
  - ₱Big challenges identified by a steering committee
  - For the next 4-5 years
  - Description, strategic analysis, propsosals about actions (<u>same budget</u>)
- Principle: Recognized autonomy and responsibility of the French research actors (« orientation » level)



#### Dialogue

- Consultation process involving about 600 people (ministries, scientists, big companies, SMEs, associations)
- Organisation: A steering group, a task force, one expert group for each identified challenge with one rapporteur
  - ▼ Thematic: Life sciences, Environmental sciences, Materials, ICT/high performance computing/maths, Human being and society towards global challenges
  - Transversal: ERA, international position of French research, Innovation ecosystem, Science and society



#### **Steps**

- Identification of societal, knowledge and transversal challenges: validated by all ministries
- State-of-play
- Strategic reflection
- Synthesis
  - → Dialogue between the experts in the working groups
  - Dialogue between the expert group and the steering committee
  - Dialogue between the steering committee and the cabinet
- Public consultation (Internet)
- Publication
- Presentation to the government



#### State-of-play and strategy

**2**.3

#### State-of-play: a SWOT analysis

- based on a shared diagnostic of strengths/assets and weaknesses of French public and private research
- identifying scientific issues and opportunities
- economic and regional dimension

based on qualitative and quantitative indicators (e.g. patents, bibliometrics), an analysis of national and European policies (incentives, legal framework)

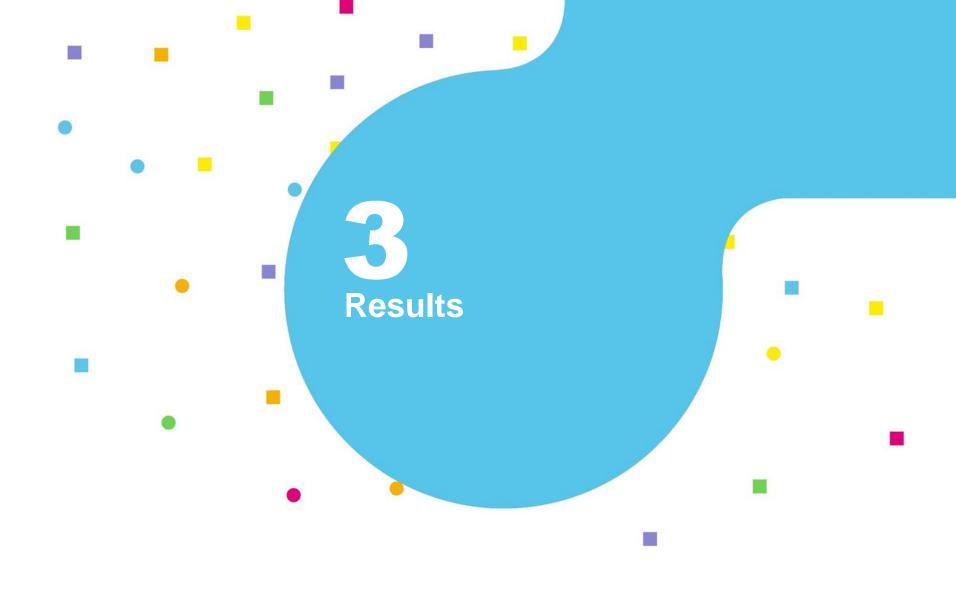
#### Strategy

- Reports including OECD, IPCC, FAO, Millenium Ecosystem Assessment
- Identification of last evolutions, potential incertainties and breakthroughs



#### Report

- A general report: synthesis
- A report for each working group



#### **Guidelines**

- Integration in a world system
- Construction of the European Research area
- Promote basic research and mutidisciplinarity major role of SSH
- Open research to society and economy, control risks and enhance security
- Create a favourable innovation environment



#### 3 priority areas

3.2

- Health, care, nutrition
- Environmental urgency
- Information, communication

At the core of emerging technologies biotechnologies, green technologies, nanotechnologies

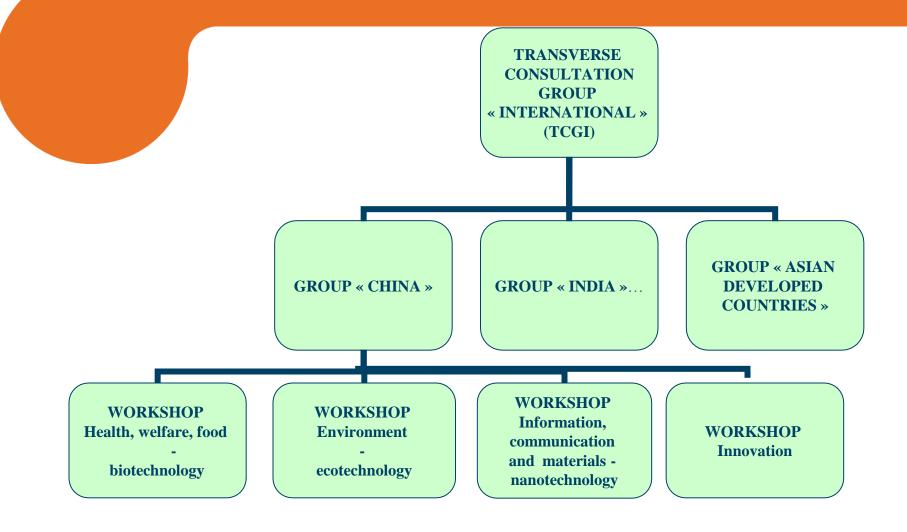


#### **SNRI**: from reflexion to action



- A strategy which has to be set up and evaluated (realisation and impact)
- A strategy which continuously changes to face new societal and scientific challenges

#### A consultation structure for implementation



#### **Objectives**

- To build a consensus between the research actors, whose mission would be eventually to concretise the recommendations issued by the consultation structure
- To define the French strategy of cooperation with the targeted country: the basis for the French position in the scientific cooperation discussions with this country

#### 2 steps



- Diagnostic of the S&T cooperation between France and the targeted country
- Strategic orientation plan

with deliverable for each step



# 4.5

### Diagnostic of the S&T cooperation between France and the targeted country

- S&T strategy of both, the targeted country and France
- Analysis of the research and innovation system and the performance in the two countries
- State-of-play of current projects and cooperation instruments
- SWOT analysis of the S&T cooperation between the two countries



#### Strategic orientation plan

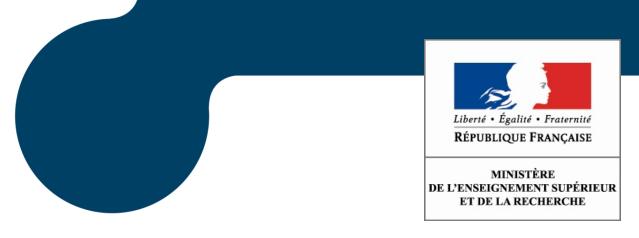
- General recommendations
- Thematic priorities and relevant cooperation instruments for each priority

#### Tools

- Bibliometrics
- An inventory of current research projects between France and the targeted country, based on a survey among French performing research organisations and universities
- ┛Documents (reports, articles, notes of the embassy…)
- Hearing of experts
- A sharepoint



#### **Preparation of SNRI 2**



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