



2nde CO2 Reuse séminar

Club CO2

Xavier Montagne

*Deputy Scientific Director « Energy, Sustainable
development, Chemistry and Process »*



Some elements of context

- **International scope**
 - **COP 21 and Mission Innovation**
- **National scope**
 - **LTECV, PPE**
 - **SNBC**
 - **SNR**
 - **10 societal Challenges**
- **Next Steps in France**
 - **SNBE**
 - **SNRE**
- **European scope**
 - **H2020**
 - **ERANET**
 - **Energy Union and SET Plan**



Energy transition for green growth act (2015) : clear and ambitious goals



40% less greenhouse gas emissions in 2030 compared to 1990



30% less fossil fuel consumption in 2030 compared to 2012



Increase the share of renewable energy sources to **32%** of the final energy consumption in 2030 and **40%** of the electricity production



Reduce final energy consumption by **50%** in 2050 compared to 2012



- **50%** less waste in landfill by 2025



Diversify electricity production and reduce the share of nuclear power to **50%** by 2025





Some elements of context

- **International scope**
 - **COP 21 and Mission Innovation**
- **National scope**
 - **LTECV, PPE**
 - **SNBC**
 - **SNR**
- **Next Steps in France**
 - **SNBE**
 - **SNRE**
- **European scope**
 - **H2020**
 - **ERANET**
 - **Energy Union and SET Plan**



The National Research Strategy

- **The national research strategy (SNR)**
 - ✓ Must be taken into account in the contracts with research organizations, and in the annual programming of funding agencies
 - ✓ Built around 10 great societal challenges setting priorities, in particular:
 - Secure, clean and efficient energy
 - Sustainable resources and adaptation to climate change
 - Mobility and sustainable urban systems



Some elements of context

- **International scope**
 - **COP 21 and Mission Innovation**
- **National scope**
 - **LTECV, PPE**
 - **SNBC**
 - **SNR**
 - **10 societal Challenges**
- **Next Steps in France**
 - **SNBE**
 - **SNRE**
- **European scope**
 - **H2020 : preparation of the 2018-2020 WP**
 - **Energy Union and SET Plan**



The National Energy Research Strategy

- **Energy transition for green growth act (article 183): need for a national energy research strategy (SNRE)**
 - ✓ Takes into account the national low carbon strategy (2015) and the energy multiannual plan (end 2016)
 - ✓ Precise the national research strategy (2015) in the field of energy
 - ⇒ *Work in progress with stakeholders, to be finalized by the end of 2016*

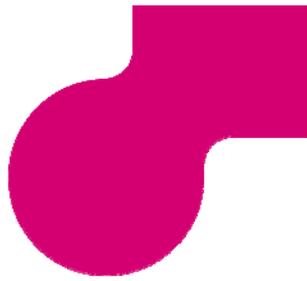
- **The national research strategy (SNR)**
 - ✓ Must be taken into account in the contracts with research organizations, and in the annual programming of funding agencies
 - ✓ Built around 10 great societal challenges setting priorities, in particular:
 - Secure, clean and efficient energy
 - Sustainable resources and adaptation to climate change
 - Mobility and sustainable urban systems



The National Energy Research Strategy

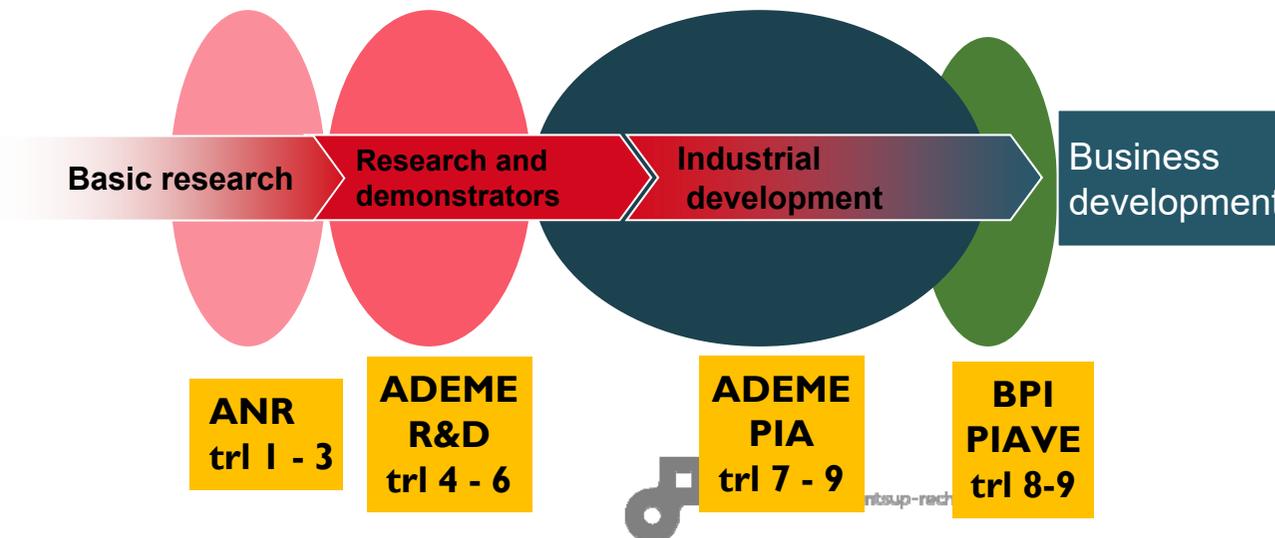
- **The secure, clean and efficient energy challenge of the national research strategy**
 - Dynamic management of energy systems
 - Multi-scale governance of new energy systems
 - Energy efficiency
 - Reduced need for strategic materials
 - Decarbonisation of energy and chemistry sectors

- **Some orientations for national energy research strategy**
 - *Adopt a systemic approach and focus on transversal issues related to energy (impact on environment, social and economic issues, digital revolution)*
 - *Consolidate a basic energy research community*
 - *Foster public-private collaboration, through industrial research and demonstration*
 - *Articulate the RDI policies at different geographic levels (local, national, European and international)*



Public support for RDI on low carbon technologies

- **Public research organisms support basic or industrial research conducted by their researchers**
 - ✓ CNRS, CEA, IFPEN, ...
- **Public funding agencies driving RDI programs on energy technologies through call for projects:**
 - ✓ ANR (research generalist)
 - ✓ ADEME (energy & environment),
 - ✓ BPI (generalist innovation)





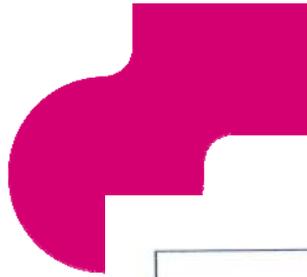
Some elements of context

- **International scope**
 - **COP 21 and Mission Innovation**
- **National scope**
 - **LTECV, PPE**
 - **SNBC**
 - **SNR**
 - **10 societal Challenges**
- **Next Steps in France**
 - **SNBE**
 - **SNRE**
- **European scope**
 - **H2020**
 - **ERANET**
 - **Energy Union and SET Plan**



European Scope

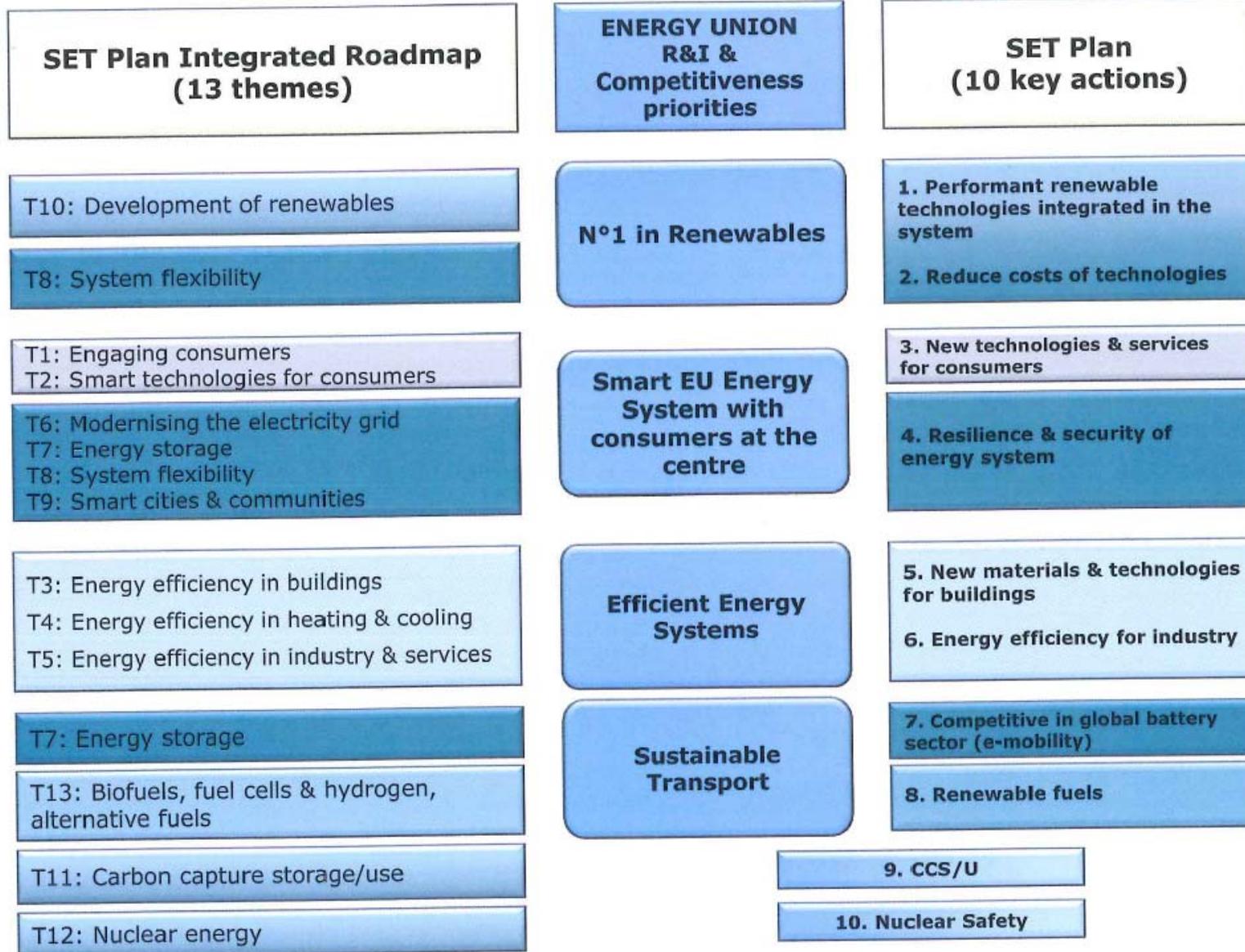
- **H2020 : the 2018-2020 WP is in preparation**
- **ERANET : since 2017, low TRL are available**
- **Energy Union and SET Plan**

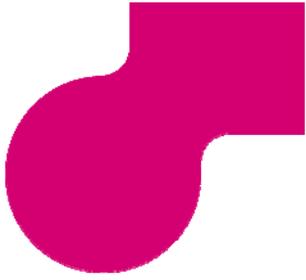


Integrated Roadmap (Déc 2014)

COM Union de l'Energie (Janvier 2015)

COM modernisation Set Plan (Sept 2015)





Have a fruitful workshop