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FNR DEVELOPMENT IN FRANCE

AND INTERNATIONAL COLLABORATION

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A fast neutron reactor for :



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- Total recycling of plutonium
- Uranium resources conservation
- Public acceptance → Separation/transmutation of minor actinides (28th June 2006 act)

→ Development of reactors and back-end fuel cycle

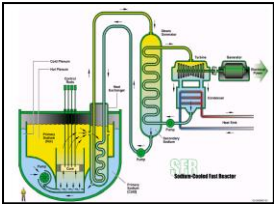
What has been decided in France



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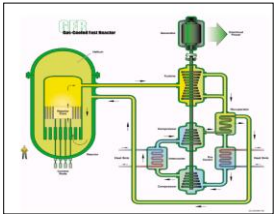
1. Sodium Fast Reactor, the reference option : ASTRID, the prototype

- maturity, possible further improvements (safety, operability, economics)
- commercial level 2040 in France, sooner in other places
- developed with industrial and international partners



2. Gas-cooled Fast Reactor, a long-term option: ALLEGRO, experimental-scale project

- attractive potentialities
- but heavy challenges (materials, fuel, safety)
- In Europe ?
- Long term





Three main goals

1. To define common safety design rules on FNRs of 4th generation
2. To share R&D
3. To exchange and to show the work done

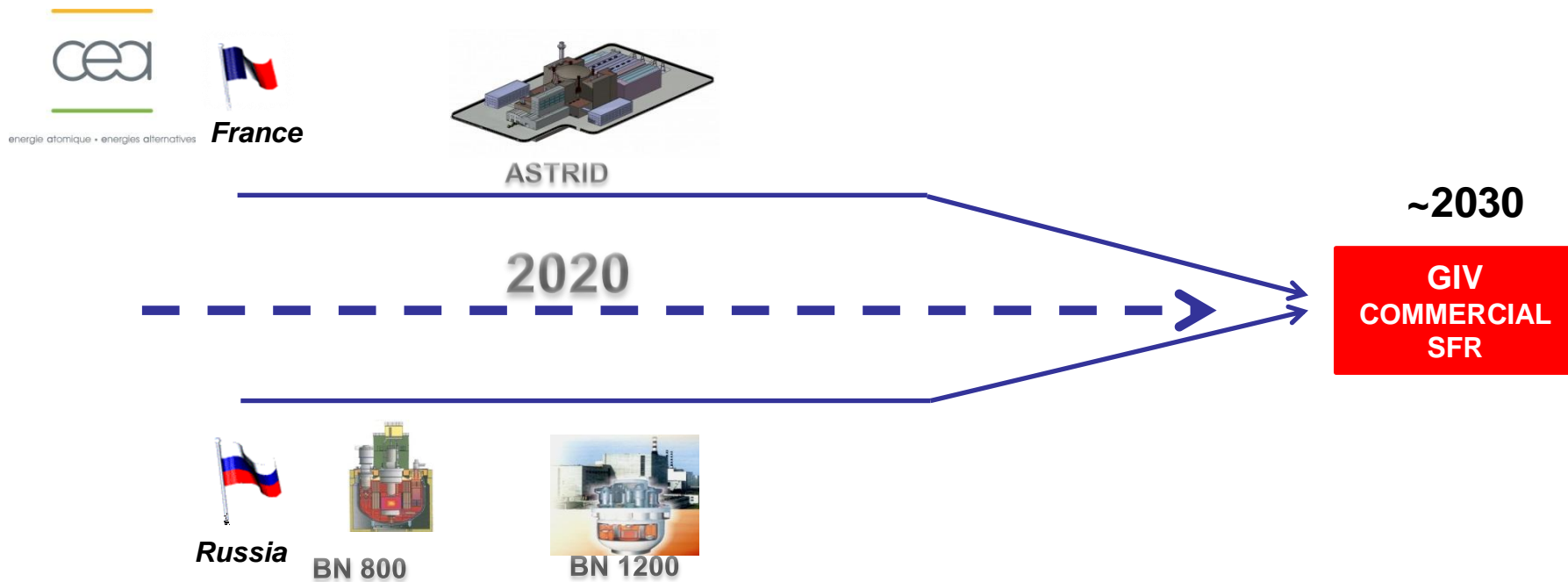
The bilateral international on FNR's Gen IV systems



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R&D COOPERATION	INDUSTRIAL COOPERATION
ROSATOM - RUSSIA 	AREVA NP - FRANCE 
AREVA - FRANCE 	ALSTOM - FRANCE 
EDF - FRANCE 	COMEX NUCLEAIRE - FRANCE 
DOE – UNITED STATES 	EDF SEPTEN - FRANCE 
JAEA - JAPAN 	BOUYGUES - FRANCE 
CAEA - CHINA 	TOSHIBA – JAPAN 
IGCAR - INDIA 	ROLLS ROYCE - UNITED KINGDOM 
KIT – GERMANY 	AMEC – UNITED KINGDOM 
NNL - UNITED KINGDOM 	
BRITISH UNIVERSITIES – UNITED KINGDOM 	
JRC – EUROPEAN UNION 	

FNR : what we are building with Russia, a very ambitious cooperation



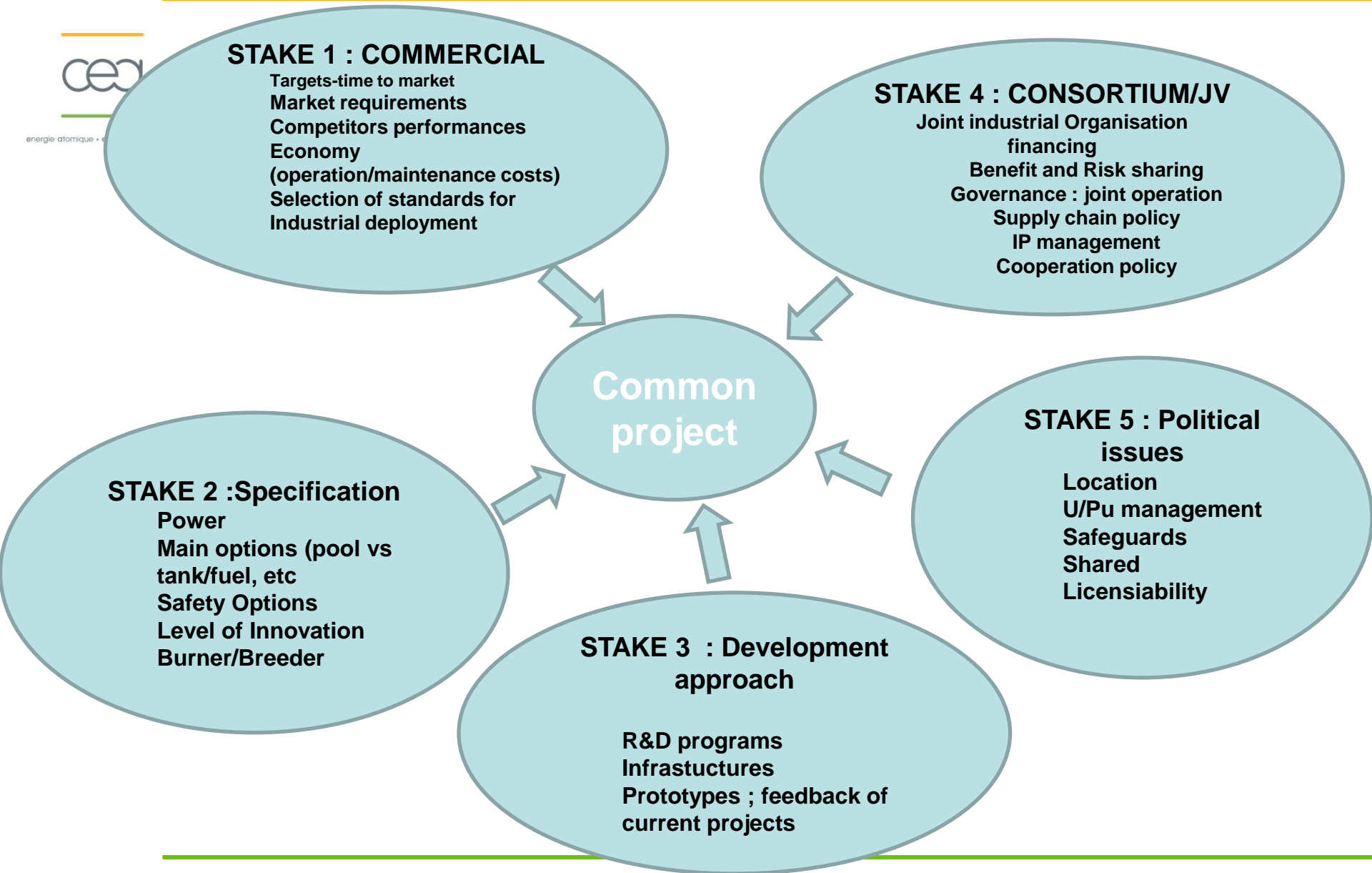
- to build jointly a **commercial GIV** sodium cooled reactor
- to address all key questions to go towards a joint consortium

French-Russia cooperation on FNR's GenIV systems

A comprehensive roadmap addressing different stake holders



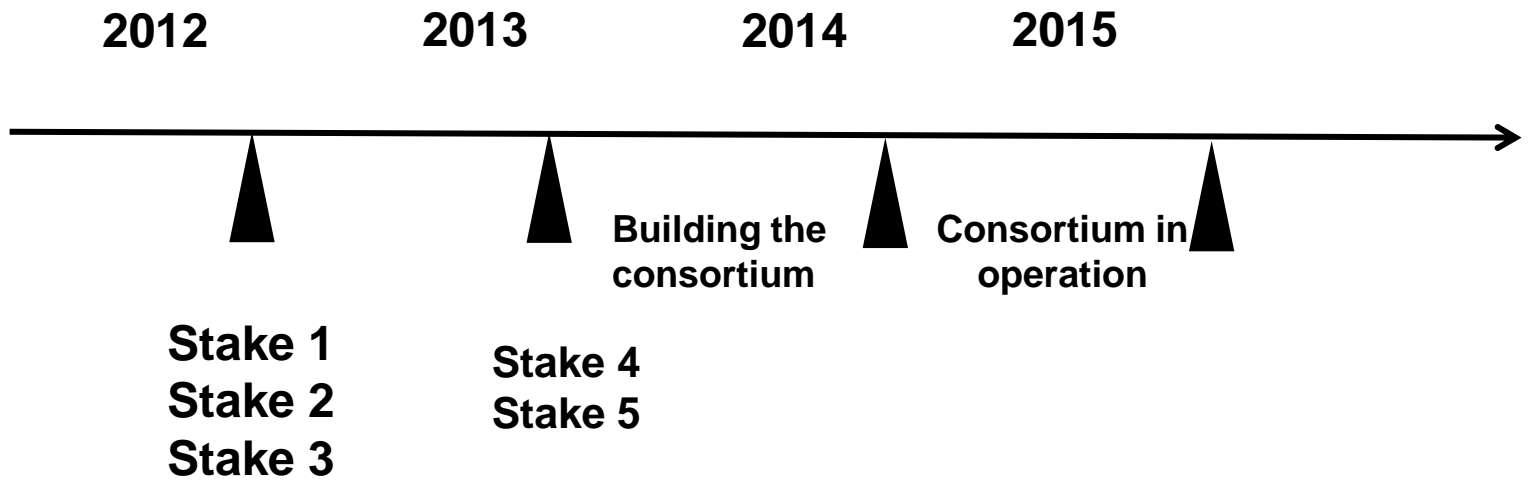
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Our main milestones



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THANK YOU
FOR
ATTENTION