Objective

The suggested Collaborative Project (CP) addresses key viability and performance issues to support the development of a fourth generation European Sodium Fast Reactor (ESFR). This innovative system is mainly developed for competitive electricity generation and offers interesting potential characteristics in terms of safety, environmental impact, resource utilisation and waste minimisation (e.g. potential for Minor Actinides management). The objectives of the CP-ESFR look for the improvement, vis-à-vis of current nuclear systems, of the safety level, the guarantee of a financial risk comparable to that of the other means of energy production and a flexible and robust management of the nuclear materials. The corresponding technical requirements in terms of System’s performance; Operation, maintenance and procedures; Safety design & analysis and licensing issues; Physical protection & Proliferation resistance; Functional requirements for provisions; Fuel cycle Constructability; Decommissioning; System’s economy are based – among others -
upon the results of the 6th FP Specific Support Action EISOFAR (Roadmap for an European Innovative SOdium cooled FAst Reactor). The schedule for this four years project fit with the principle for an industrial deployment of ESFR technology around 2040 with the preliminary deployment of a demonstrator by 2020-2025. Following the requirements above, and considering the context as it is described, the Collaborative Project is tentatively structured into six main technical sub projects (SPs):

1) Consistency and assessment & international relationships
2) Fuel, fuel element, core & fuel cycle
3) Safety and Security
4) Energy Conversion System Components & materials
5) Reactor system (including handling)
6) Education & training

A specific Management activity will insure the whole consistency.

Field of science

/engineering and technology/electrical engineering, electronic engineering, information engineering/electrical engineering/power engineering/electric power generation

/natural sciences/chemical sciences/inorganic chemistry/inorganic compounds

/engineering and technology/environmental engineering/energy and fuels/energy conversion

Programme(s)

Topic(s)

Call for proposal

FP7-Fission-2008

Funding Scheme

CP-IP - Large-scale integrating project

Coordinator

COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES

Address
Rue Leblanc 25
75015 Paris 15

Activity type
Research Organisations

EU contribution
€ 1 211 563

Website
Contact the organisation
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<td>United Kingdom</td>
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ELECTRICITE DE FRANCE

France
EU contribution
€ 325 294

Address
Avenue De Wagram 22
75008 Paris 08

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Daniele Verwaerde (Mrs.)

EMPRESARIOS AGRUPADOS INTERNACIONAL SA

Spain
EU contribution
€ 156 963

Address
Calle Magallanes 3
28015 Madrid

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Maria Teresa Dominguez (Mrs.)

AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE

Italy
EU contribution
€ 215 000

Address
Lungotevere Grande
Ammiraglio Thaon Di Revel 76
000196 Roma

Activity type
Research Organisations
ENERGOVYZKUM spol.s.r.o.

Czechia
EU contribution
€ 117 567

Address
Bozetechova 17
612 00 Brno

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

KARLSRUHER INSTITUT FUER TECHNOLOGIE

Germany
EU contribution
€ 531 169

Address
Kaiserstrasse 12
76131 Karlsruhe

Activity type
Higher or Secondary Education Establishments

HELMHOLTZ-ZENTRUM DRESDEN-ROSENDORF EV

Germany
EU contribution
€ 81 020

Address
Bautzner Landstrasse 400
01328 Dresden

Activity type
Research Organisations
JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION

Belgium

€ 641 972

Address
Rue De La Loi 200
1049 Brussels

Activity type
Research Organisations

Website
Contact the organisation

Administrative Contact
Jacqueline Ribeiro (Mr.)

NUCLEAR RESEARCH AND CONSULTANCY GROUP

Netherlands

€ 293 993

Address
Westerduinweg 3
1755 LE Petten

Activity type
Other

Website
Contact the organisation

Administrative Contact
Pedro J. Sayers (Mr.)

UJV REZ, a. s.

Czechia

€ 90 677

Address
Hlavni 130, Rez
250 68 Husinec

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Miroslav Hrehor (Mr.)

PAUL SCHERRER INSTITUT
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<td><strong>INSTITUT DE RADIOPROTECTION ET DE SURETE NUCLEAIRE</strong></td>
<td>€ 259 541</td>
<td>Av De La Division Leclerc 31, 92260 Fontenay Aux Roses</td>
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