



Horizon Europe - Euratom R&I



**UNIVERSITY OF
CAMBRIDGE**
Department of Engineering

**UK Nuclear Academics Meeting
7-8 September 2021**



Roger GARBIL
European Commission
DG Research and Innovation
Head of Euratom Fission Research
Roger.Garbil@ec.europa.eu

NADM2021, UK NUCLEAR ACADEMICS 2021, virtual, 7-8 September 2021

EU/Euratom Research and Training

.... With a focus on RTD

EU/Euratom Fission achievements and challenges

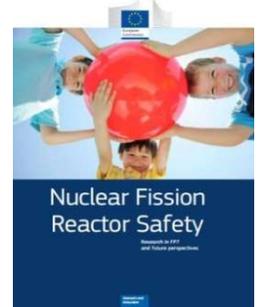
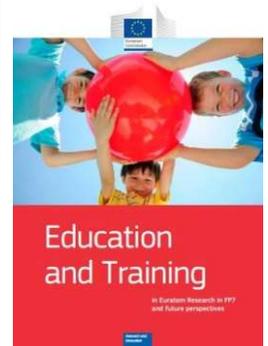
Nuclear Energy Development, including Research Activities (art.4-11)

Health and Safety (art.30-39)

Safeguards (Guarantees for Peaceful Uses) (art.77-85)

External Relations (art.101-106)

- **Safe and harmonised** management of radioactive waste
- **Enhanced safety** of design and operation of existing and future reactors
- **Lift uncertainty about health risks after low radiation dose** due to industrial and medical applications
- **Ensure transfer of knowledge** to future generation in the field
- **Integration of European research** programming and implementation
- **Challenges need to be addressed worldwide**



Euratom Treaty, EU Directives, E&T safety requirement

Euratom Treaty establishing the European Atomic Energy Community 25/03/1957

Euratom Community research and training programme

Each Member State **shall take the necessary measures with regard to teaching, education and vocational training**

- **EU Nuclear Installations Safety Directive 2009/71/Euratom, amendment 2014/87/Euratom** Expertise and skills in nuclear safety
- **EU Nuclear Waste Directive 2011/70/Euratom** for the responsible and safe management of spent fuel and radioactive waste Expertise and skills
- **EU Basic Safety Standards Directive 2013/59/Euratom** laying down for protection against the dangers arising from exposure to ionising radiation
Requirements for radiation protection education, training and information

MS Transposition
----- Aug.2017
----- Aug.2013
----- Feb.2018



IAEA Convention on Nuclear Safety - Each Contracting Party shall take the appropriate steps to ensure that sufficient numbers of qualified staff with appropriate education, training and retraining are available for all safety-related activities in or for each nuclear installation, throughout its life

EU Multi-annual Financial Framework (MFF), synergies between Horizon Europe, Euratom and EU Programmes

EU's 2021-2027 budget & NextGenerationEU

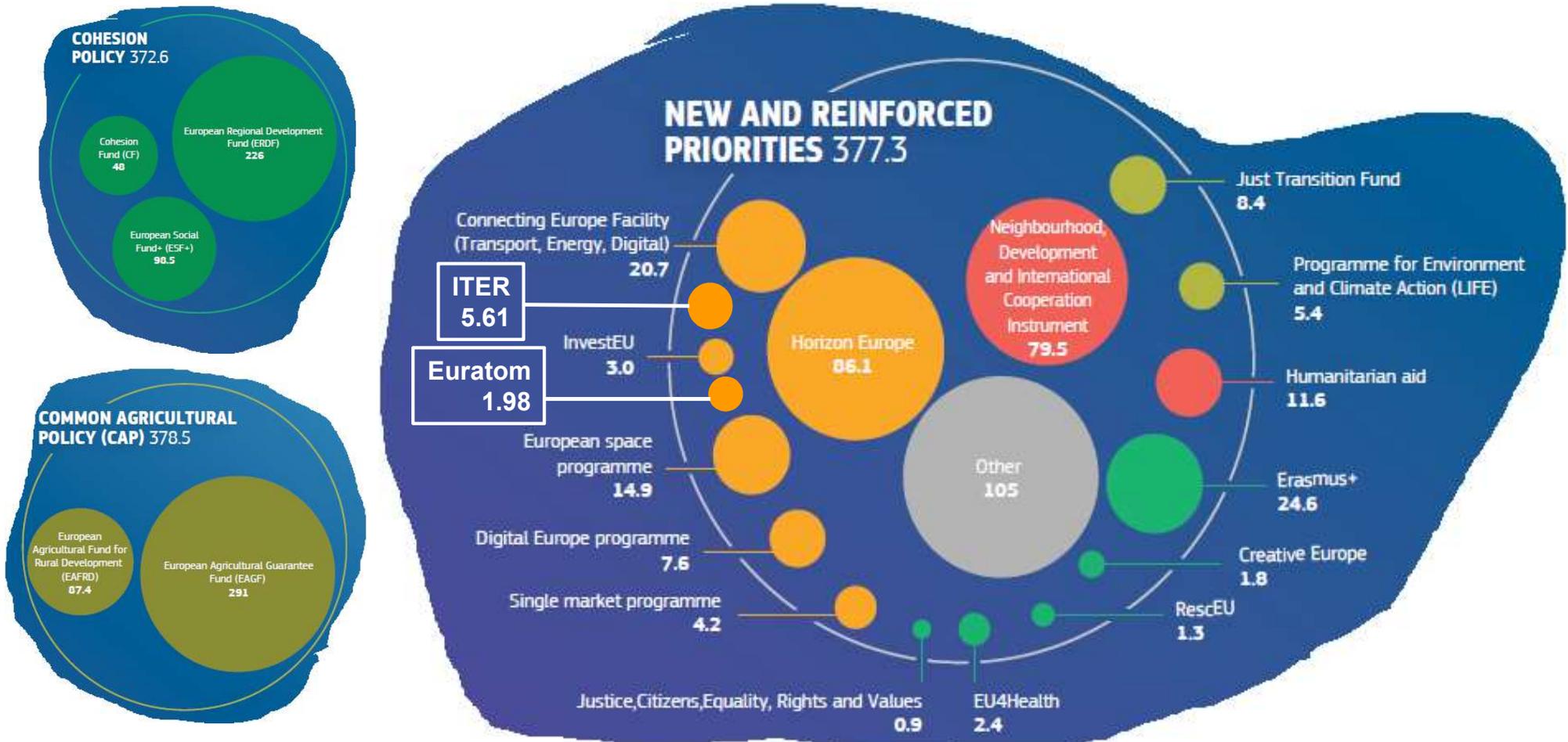
Facts and figures



In 2020, the EU provided an unprecedented response to the coronavirus crisis that hit Europe and the world. At its heart is a stimulus package worth EUR 2.018 trillion in current prices (EUR 1.8 trillion in 2018 prices). It consists of the **EU's long-term budget for 2021 to 2027** of EUR 1.211 trillion (**EUR 1.074 trillion** in 2018 prices), **topped up by** EUR 806.9 billion (**EUR 750 billion** in 2018 prices) through **NextGenerationEU**, a temporary instrument to power the recovery. The EU sets the limits of its spending in the multiannual financial framework , the EU's long-term budget for the next 7 years.

The EU's 2021-2027 long-term budget & NextGenerationEU – Facts and figures dated 29/04/2021
<https://op.europa.eu/en/publication-detail/-/publication/d3e77637-a963-11eb-9585-01aa75ed71a1/language-en>

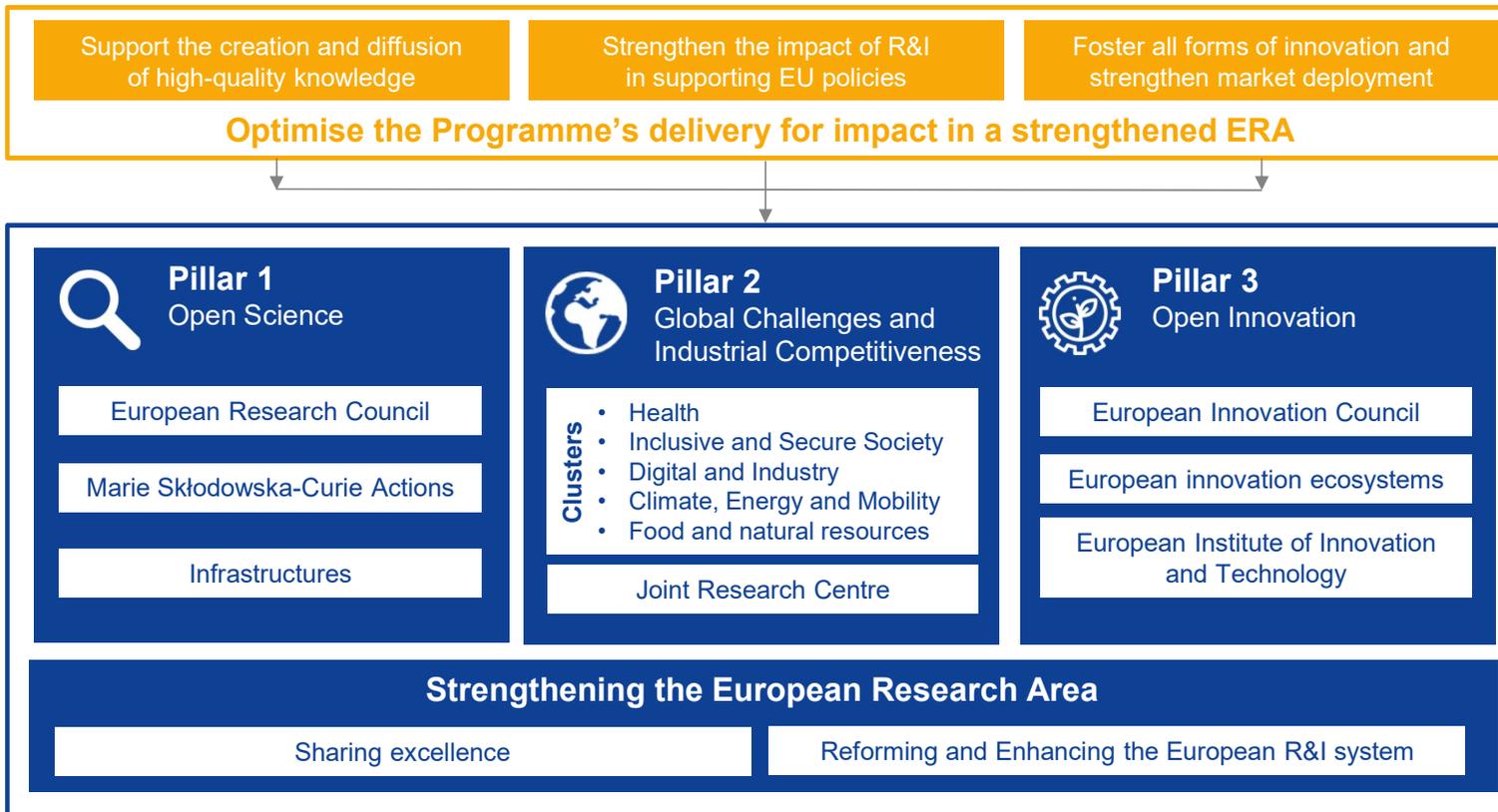
Multiannual Financial Framework MFF 2021-2027



The EU's 2021-2027 long-term budget & NextGenerationEU – Facts and figures dated 29/04/2021
<https://op.europa.eu/en/publication-detail/-/publication/d3e77637-a963-11eb-9585-01aa75ed71a1/language-en>

Horizon Europe: evolution not revolution

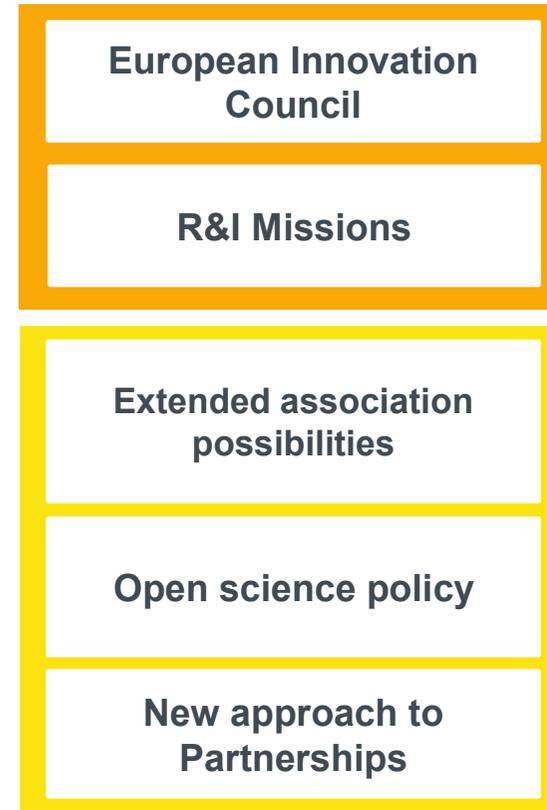
Specific objectives of the Programme



Lessons Learned from Horizon 2020 Interim Evaluation

-  Support breakthrough innovation
-  Create more impact through mission-orientation and citizens' involvement
-  Strengthen international cooperation
-  Reinforce openness
-  Rationalise the funding landscape

Key Novelties in Horizon Europe



Euratom Research complementing Horizon Europe



- **EURATOM research and training programme: Council reached political agreement on 18/12/2020** on the proposed regulation establishing the research and training programme of the European Atomic Energy Community **for the period 1 January 2021 to 31 December 2025.**
- The aim of the regulation is **to pursue nuclear research and training activities** with an emphasis on the continuous improvement of nuclear safety, security and radiation protection, **as well as to complement the achievement of Horizon Europe's objectives**
- On the basis of this political agreement, both Horizon Europe and Euratom agreed text regulations were **formally adopted by Council on 22 February (ITER and F4E), on 28 April (Horizon Europe), and 10 May 2021 (Euratom)** but also EI-INSC, Decommissioning LT, and Decommissioning BG, SK, JRC programmes

EU Council regulation Horizon Europe <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0695&qid=1630764388794>

Euratom Research and Training <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.LI.2021.167.01.0081.01.ENG>

ITER and F4E <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021D0281&qid=1630764683246>

... Complemented by EI-INSC <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0948&from=EN>

Decom NADP LT <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0101&qid=1630767059180>

Decom NADP SK, BG, and Decom JRC <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0100&qid=1630767174312>

Contribution from nuclear to EU policies and SDGs

EC President von der Leyen Priorities

UN Sustainable Development Goals



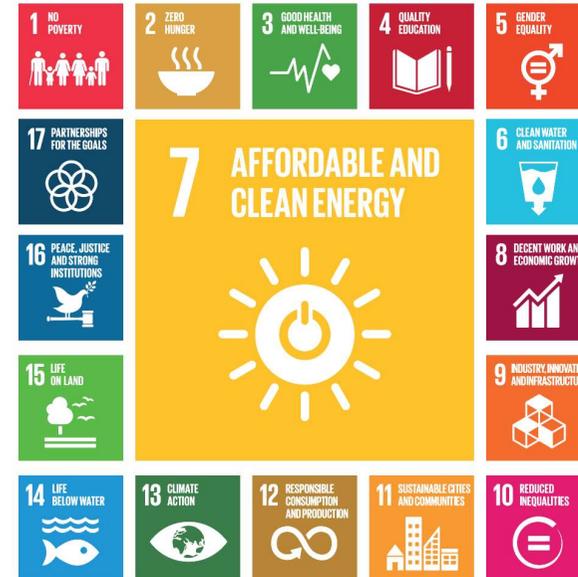
Targeted impacts for the von der Leyen political guidelines



Affordable energy reduces poverty (SDG1) and inequality (SDG10), and supports health (SDG3), education (SDG4), industry (SDG9) and economic growth (SDG8)

Energy for all fosters peace, justice (SDG16), and partnerships (SDG17)

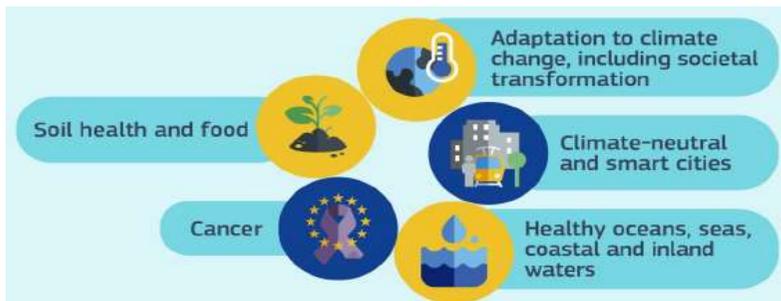
Sustainable energy is crucial for climate action (SDG13), ecosystems (SDG14, 15), agriculture (SDG2), water (SDG6, 14), and reducing waste (SDG12)



Reliable energy is essential for industry (SDG9), agriculture (SDG2), health (SDG3) and education (SDG4)

Modern energy supports clean communities (SDG11), health (SDG3), and gender equality (SDG5)

Horizon Europe Missions



Research and Innovation



Science & technology

Society

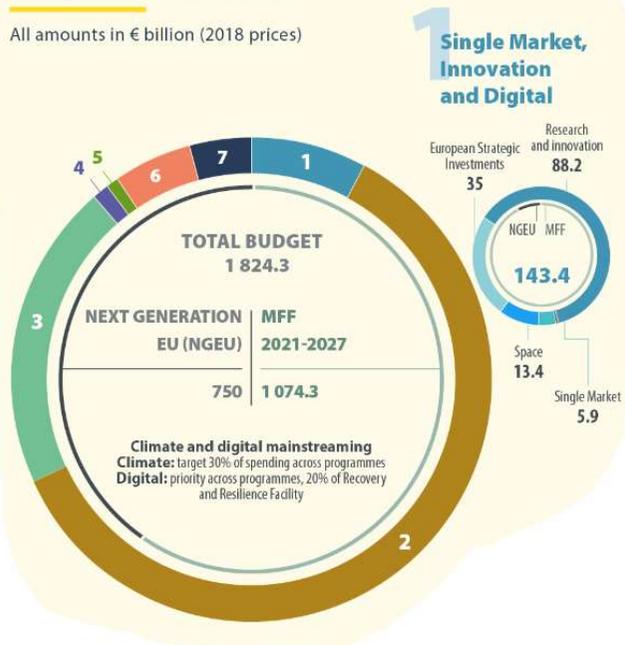
Economy



2021-27 Horizon Europe EUR 95.5 & Euratom EUR 1.98 Billion

EU expenditure for 2021-2027

All amounts in € billion (2018 prices)



Euratom Research and Training *** Complementing Horizon Europe	<i>(7 years)</i> EUR 1,980 million	<i>(5 years)</i> EUR 1,380 million
Indirect RTD		
• Fusion R&D	809	583
• Fission R&D Safety and radiation protection	370	266
Direct JRC		
• Fission Safety and safeguards	802	532

ITER (a dedicated EC Regulation, 7 years)	EUR million
	5,610

EU Council PRESS RELEASE 10/05/2021

<https://www.consilium.europa.eu/en/press/press-releases/2021/05/10/council-complements-eu-research-legislative-framework/>

EURATOM Regulation https://ec.europa.eu/info/news/eu-adopts-euratom-research-and-training-programme-2021-may-12_en

(Euratom) No 2021/765 of 10/05/2021 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.LI.2021.167.01.0081.01.ENG>

HORIZON EUROPE Regulation (EU) No 2021/695 OF 28/04/2021

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.170.01.0001.01.ENG&toc=OJ%3AL%3A2021%3A170%3ATOC

2021-27 Overview of unifying activities EC RTD-JRC-ENER-INTPA

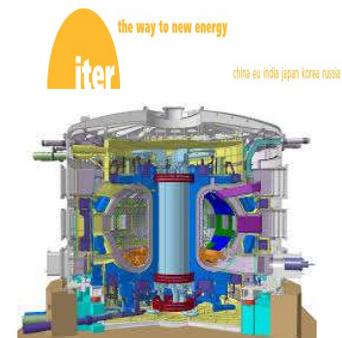
RTD-JRC



Complementing EU Nuclear Safety and Decommissioning (LT, BG, SK) implemented by DG **INTPA** and **New JRC** Decommissioning Programme

Safeguards & security – specific to **JRC**

- Improving the safety of nuclear systems**; including nuclear reactor and fuel safety as well as emergency preparedness, decommissioning
- Contributing to the development of solutions for the **nuclear waste management** and for **NPPs decommissioning**, including final geological disposal as well as partitioning and transmutation
- Fostering the development and sustainability of **nuclear expertise** and increasing excellence in the **nuclear science base** for standardisation.
- Supporting **radiation protection** and the development of **medical applications of radiation**, including the secure and safe supply and use of radioisotopes
- Moving towards demonstrating the feasibility of **fusion as a power source**, laying the foundations for future fusion power plants by developing materials, technologies and conceptual design; and promoting innovation and industrial competitiveness.
- Ensuring the availability and use of **research infrastructures** of pan-European relevance.
- Improving **nuclear security**, including: nuclear safeguards, non-proliferation, combating illicit trafficking, and nuclear forensics.
- Supporting the **policy of the Union** on nuclear safety and security.



Fusion – specific to **RTD** (EUROfusion) and **ENER** (F4E Joint Undertaking for the construction of ITER)

BG, SK, JRC, dated 25.01.2021, Euratom 2021/100 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0100&qid=1621156900987&from=EN>
LT, dated 25.01.2021, Euratom 2021/101 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0101&qid=1621156900987>

Security and defense - legal texts and factsheets (2018 Proposal)

https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-decommissioning_en.pdf

https://ec.europa.eu/commission/publications/security-and-defence_en

Synergies between Union programmes



HORIZON EUROPE			EURATOM
Other Union Programmes, including			
Common Agricultural Policy	InvestEU	ESF+	Innovation Fund
External Instrument	LIFE	Digital Europe	Internal Security Fund and Instrument for Border Management
Maritime & Fisheries Fund	EU4Health	Space Programme	
Connecting Europe Facility	ERDF	ERASMUS+	Single Market Programme
Just Transition Mechanism	EURATOM	Creative Europe	Recovery and Resilience Facility

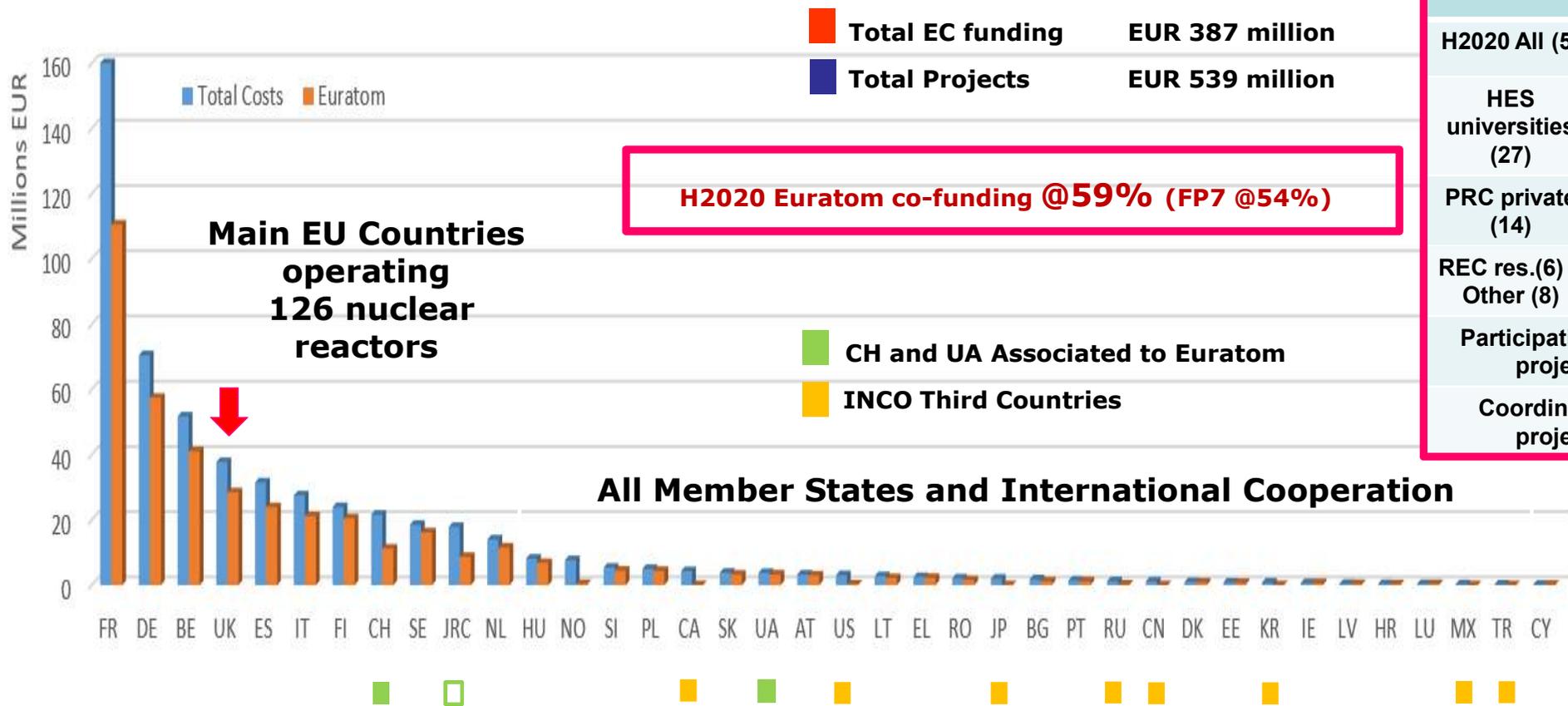
Enhanced synergies

COMPATIBILITY
Harmonisation of funding rules; flexible co-funding schemes; pooling resources at EU level

COHERENCE & COMPLEMENTARITY
Alignment of strategic priorities in support of a common vision

EU/Euratom Research and Training, focusing on the UK

EURATOM Fission H2020 (2014-20)

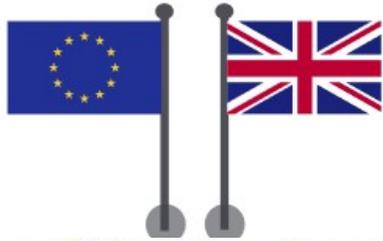


UK Beneficiaries	
H2020 All (51 entities)	
HES universities (27)	55%
PRC private (14)	28%
REC res.(6) + Other (8)	12% + 16%
Participating in 88 projects	
Coordinating 2 projects	

A total of 97 projects co-funded within two 2-years' calls in addition to JHR (EUR 21 million *) and InnovFin (EUR 20 million)
 * Access rights to JHR totalising EUR 32.5 million, 5.15% of irradiation time



EU-UK Relations: A new relationship, with big changes



Protecting the European Union's interests, ensuring fair competition, and continued cooperation in areas of mutual interest



Overall institutional framework



EU-UK Trade and Cooperation Agreement

Governance and enforcement

Consequences of the UK's choice to leave the EU, Single Market & Customs Union

- ▶ UK no longer benefits from EU funding programmes, e.g.
 - NextGenerationEU, aimed at speeding up the EU's collective recovery from Covid pandemic;
 - regional development and cohesion funding;
 - agricultural & rural development support;
 - and many others.
- ▶ UK is excluded from sensitive, high-security projects or contracts

Benefits of the EU-UK Trade and Cooperation Agreement

- ▶ UK participates in 5 EU programmes open to third-country participation (subject to its financial contribution), namely:
 - Horizon Europe (research and innovation)
 - Euratom Research and Training programme
 - ITER (fusion test facility)
 - Copernicus (Earth monitoring system)
 - Access to EU satellite surveillance & tracking (SST) services

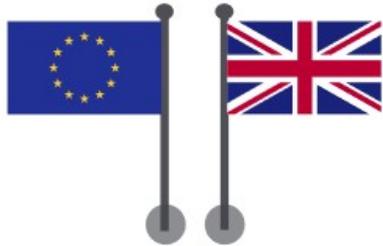
EU-UK Trade and Cooperation Agreement DOCS

https://ec.europa.eu/info/relations-united-kingdom/eu-uk-trade-and-cooperation-agreement_en

https://ec.europa.eu/info/sites/default/files/slides_on_governance_and_enforcement_1.pdf

https://ec.europa.eu/info/sites/default/files/eu-uk_trade_and_cooperation_agreement-a_new_relationship_with_big_changes-overview_of_consequences_and_benefits.pdf

EU-UK Relations: A new relationship, with big changes



- **UK will leave the European Atomic Energy Community (Euratom), the Single Market for trade in nuclear materials and technology,** which ensures the security of atomic energy supply and enables the pooling of knowledge, research, infrastructure and funding of nuclear energy.
- **A separate agreement between Euratom and the UK on the safe and peaceful uses of nuclear energy** provides for wide-ranging cooperation on nuclear safety and peaceful uses of nuclear energy, underpinned by assurances that both sides will comply with international non-proliferation obligations and will not lower their current level of nuclear safety standards.
- UK participate in the following Union programmes: Horizon Europe, **the Euratom Research and Training programme, the International Thermonuclear Experimental Reactor (ITER),** Copernicus and access the EU's Satellite Surveillance & Tracking (SST).

NOT YET AVAILABLE

EU-UK Trade and Cooperation Agreement DOCS EU-UK Relations

https://ec.europa.eu/info/relations-united-kingdom/eu-uk-trade-and-cooperation-agreement_en



EU/Euratom Research and Training, implementation, evolution

EU/EURATOM Fission RTD Work Programmes

~ 20%

Waste Management and Geological disposal

- Decommissioning

Reactor systems

- Safety of existing nuclear installation (Gen II-III)
- Advanced nuclear systems for increased safety (Gen-IV)
- Partitioning, Transmutation and closed fuel cycle
- Cross-cutting aspects (e.g. fuels, materials, simulation, nuclear data)
- Other applications (e.g. cogeneration, support to Research Reactors)

~ 40%

~ 20%

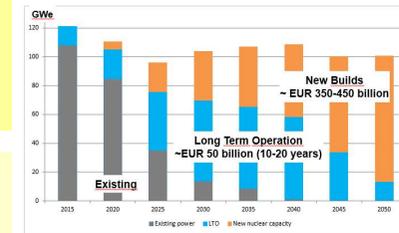
Radiation protection

- Non-power applications

~ 20%

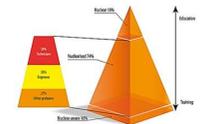
Research infrastructures
Training and mobility
Cross-cutting INCO

Nuclear Power Generation (PINC 2016)



PINC - EU Nuclear Illustrative Programme
<https://ec.europa.eu/energy/en/news/commission-presents-nuclear-illustrative-programme>

Other important aspects with respect to HR requirements for nuclear experts at a European scale are the experts employed by the regulatory bodies, their technical support organizations, and in nuclear research, education, and training.



Grand Total:
Euratom Fission RTD ~ 50 Mi€ / Year
Euratom Fission JRC ~ 50 Mi€ / Year
Total ~ 10 % EU Public&Private
Fission R&D

Euratom Call 2021-22 Overview Schedule

Event	Date
Drafting and Programme Committee WP2021-22	02/2020 – 02/2021
Adoption Euratom 2021-25	05/2021
Euratom WP2021-22 publication	07/2021
Submission Call open.....	07/2021
Deadline	7/10/2021
Evaluations	10 – 11/2021
Negotiations/Finalisation of Grants	01 – 05/2022
Grant Agreement signature.....	06/2022
First projects launched	06/2022

EC Funding and Tenders portal <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

Horizon Europe and Euratom Info Days <https://www.horizon-europe-infodays2021.eu/>



Euratom 1-16 (Fission) and Other Actions (Fusion and others)	EUR million EC contr./prop	Total Budget (indicative)	Proposals (indicative)
1 Safety of operating Nuclear Power Plants and Research Reactors (RIA).....	3.0	18.0	6
2 Safety of advanced and innovative nuclear designs and fuels (RIA).....	3.0	13.5	4
3 Multi-recycling of spent nuclear fuel from Light Water Reactors (RIA).....	3.0	3.0	1
4 Advanced structural materials for nuclear applications (RIA).....	8.0	8.0	1
5 Safety of High Temperature Reactors (RIA).....	3.0	3.0	1
6 Harmonization of licensing procedures, codes and standards Fi/Fu (RIA).....	2.5	2.5	1
7 Development of tritium management in fusion and fission facilities (RIA).....	3.0	3.0	1
8 Towards an aligned harmonized regulatory framework RWM and DECOM (CSA)...	3.0	3.0	1
9 European Partnership for research in radiation protection (COFUND).....	30.0*	30.0*	1
10 Safe use and reliable supply of therapeutic radionuclides (RIA).....	3.0	3.0	1
11 Cross-sectoral synergies and new applications of nuclear technologies (IA).....	2.0	10.0	5
12 European Facility in Nuclear Research (CSA).....	9.0	9.0	1
13 Towards a European nuclear competence area (CSA).....	7.0	7.0	1
14 Socio-economic issues related to nuclear technologies (CSA).....	1.5	1.5	1
15 Support to Euratom National Contact Points (CSA).....	0.25	0.25	1
16 Support to the Sustainable Nuclear Energy Technology Platform (CSA).....	0.6	0.6	1
Other Actions: GIF, FISA2022/EURADWASTE'22 ...Eurofusion (COFUND 537*)....		0.7 .. 537 (fusion)	1
Overall Euratom Fission 2021-22 Call indicative budget (* include budget from years 2023-25 fission (20), fusion (343))		99.6 (fission)	29

Other Actions

- **Nuclear Innovation Prize (OA-03)** – to encourage European researchers to pursue excellence across a broad range of nuclear sciences and technologies.
https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/prizes/nuclear-innovation-prize_en
- **MSCA Postdoctoral Fellowships in research fields covered by the Euratom Programme 2021-2025 (Other Action OA-06)** – contribution to development of nuclear competences in the EU by provision of MSCA fellowships in fission and fusion research <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-msca-2021-pf-01-01>
- **FISA2022 and EURADWASTE'22 Conference (OA-08)** – presentation and discussion of progress and key achievements of the latest Euratom projects
- **Other Actions: external expertise (OA-04), ex-post and interim evaluation (OA-05), contribution to GIF (OA-07), communication actions (OA-10), support for Ukraine NCP (OA-11).**

Mark your calendar - FISA2022 / EURADWASTE'22



François de La Rochefoucauld's assertion that "everything happens in France" is as true now as it was 350 years ago – global culture, fashion, food and football all have a distinct French accent.

<https://www.consilium.europa.eu/en/council-eu/presidency-council-eu/>
http://europa.eu/european-union/eu60_en



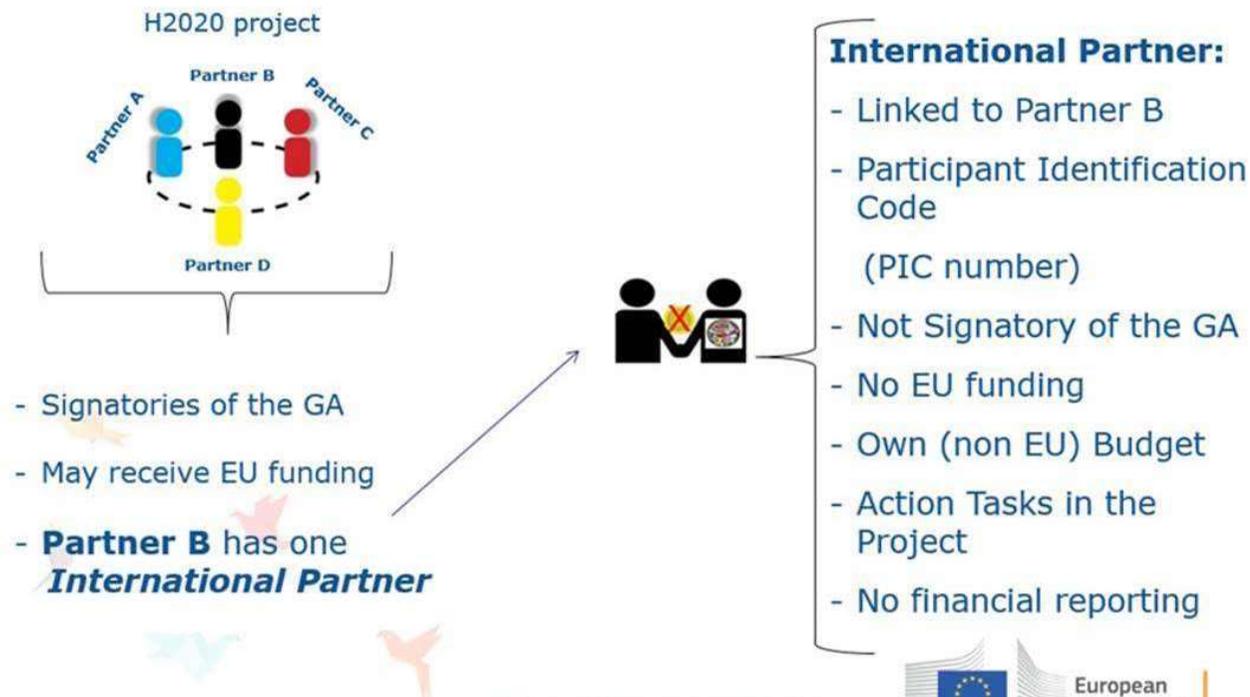
Or



Cooperation opportunities (Horizon Europe)

BENEFICIARIES, AFFILIATED ENTITIES AND OTHER PARTICIPANTS Grant Agreement Art. 7 to 10

"INTERNATIONAL PARTNERS"



Linked Third Parties (LTP)
to a partner of the project

***** New *****
International Partners

Please see
Art.14 (H2020), Art 7 to 10
(Horizon Europe)

Horizon Europe and Euratom General Grant Agreement

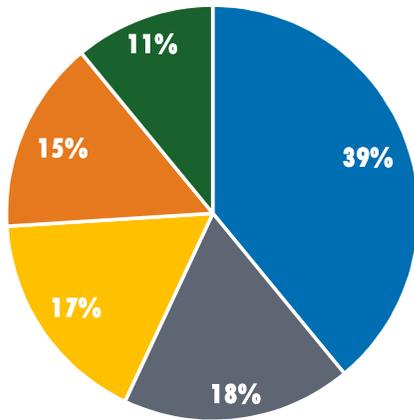
https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/agr-contr/general-mga_horizon-euratom_en.pdf

EU/Euratom Research and Training, shaping and future

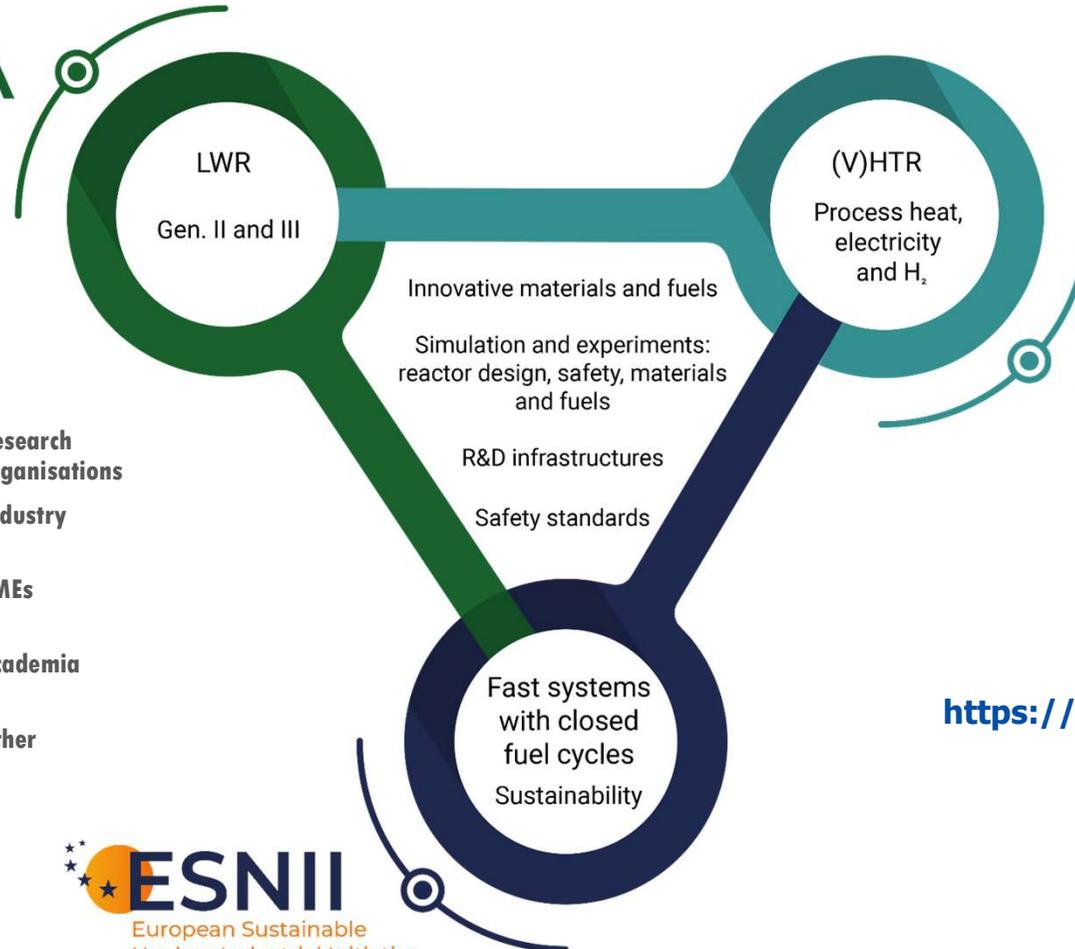
SNETP Three Pillars



Categories of membership



- Research organisations
- Industry
- SMEs
- Academia
- Other



<https://snetp.eu/>



R&D

Strategic studies

Knowledge management

Interacting with Civil Society



European Joint Programme
on Radioactive Waste Management

EURAD | 1st Annual event 16-18/03/2021

EURAD <https://www.ejp-eurad.eu/>

PREDIS <https://predis-h2020.eu>

IGDTP <https://igdtp.eu/>

igd:tp



safe solutions for radioactive waste



EU-project PREDIS

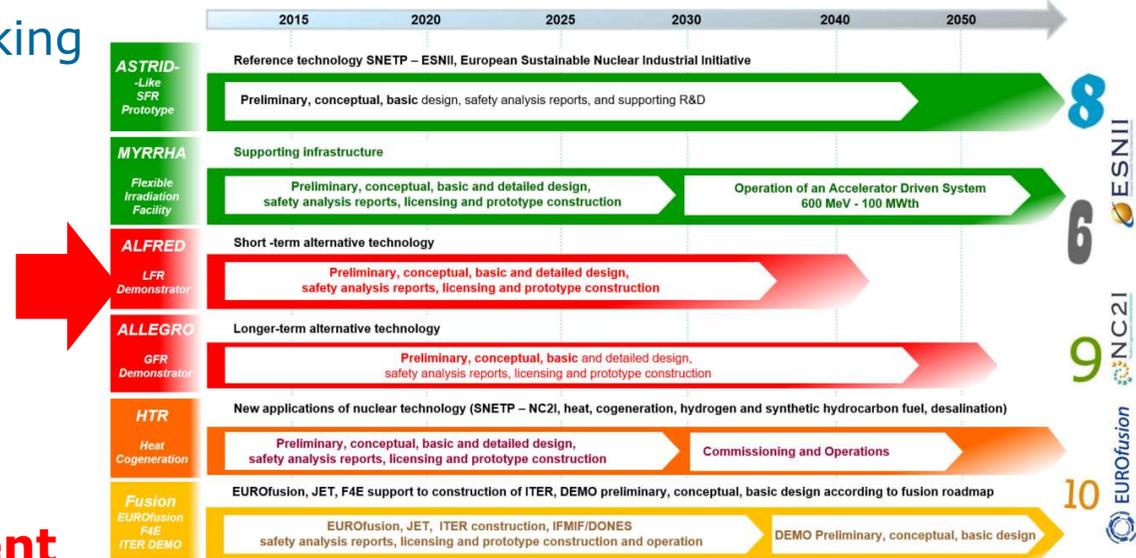
Pre-disposal management of radioactive waste

SET-Plan Key Action n.10 – Nuclear

- Key **innovation** pillar of the **Energy Union**
- Comprehensive energy **R&I agenda to accelerate innovation** and the energy transition
- Better alignment of European and National R&I programmes** thus making better use of existing resources
- Integrated approach** going beyond technology silos
- Setting priorities focus on specific targets**

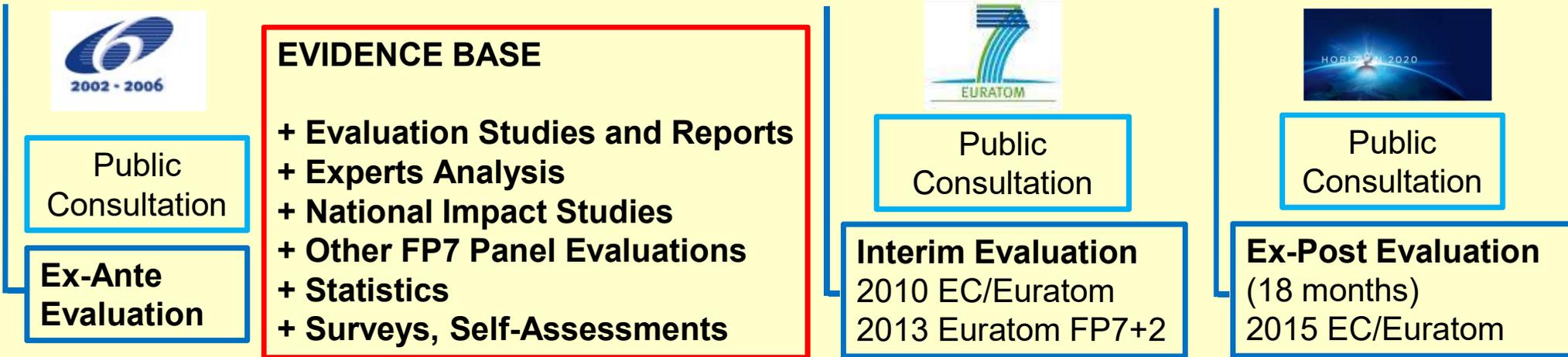
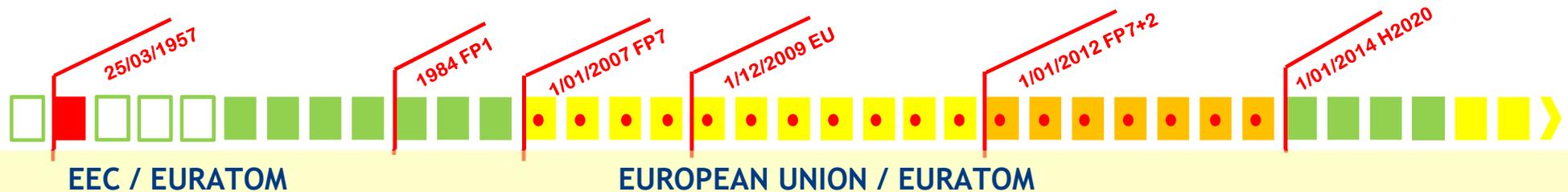
But

- SET-Plan is not a funding instrument**



SET-Plan SETIS https://setis.ec.europa.eu/index_en
 SET-Plan Documents https://setis.ec.europa.eu/implementing-actions/set-plan-documents_en

FP7 WP Monitoring, assessment and review



See Article 6 Monitoring, assessment and review of FP7 COM 2006/970/EURATOM and FP7+2 COM 2012/93/EURATOM

EU/EURATOM Committees / PC



STC (permanent, formal 5Y)
Art. 134 Euratom Treaty STC
 Scientific and Technical
 Committee

... Assist EC in the
 preparation of legislation or
 policy definition

... Gives opinion on all
 nuclear matters, policy,
 research and JRC activities



**Council WPAQ Working
 Party on Research / Atomic
 Questions**

... Develop Council
 decisions, handles all legal
 and technical initiatives

**EP ITRE Industry, Research
 and Energy Committee**

... Amend EC decision,
 advise EC and Council



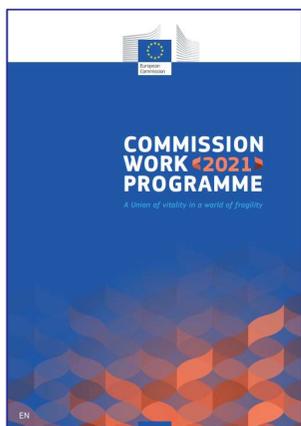
CCE-Fi (temporary, formal)

**FP7 Council Decision
 COM20xx/.../Euratom,**
 Consultative Committee Euratom
 on Fission

... Gives advice to EC regarding
 FP implementation

... MS provide expertise to EC
 when implementing measures to
 comitology committee

2021 Commission work programme(s) – key documents



Commission 2021 work programme, designed to make Europe healthier, fairer and more prosperous, while accelerating its long-term transformation into a greener economy, fit for the digital age. **It contains new legislative initiatives across all six headline ambitions of President von der Leyen's Political Guidelines** and follows her first State of the Union Speech.

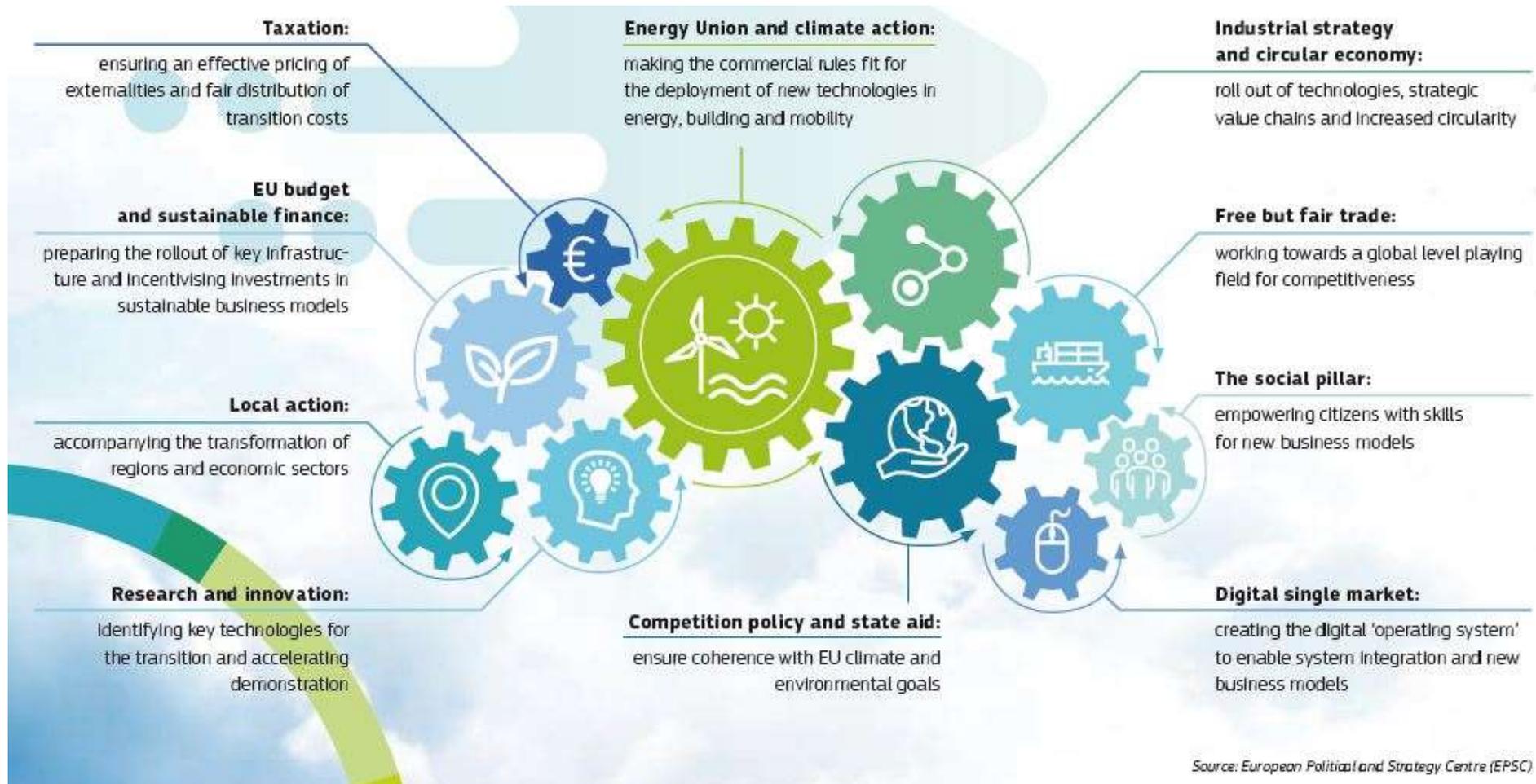


In their strategic plans 2020-24, Commission departments describe how they will contribute to the 6 political priorities of the Commission. They define specific objectives for their department for a five-year period as well as indicators to help them track progress. All departments report on progress each year in their annual activity reports.

COMMISSION WP 2021 – key documents https://ec.europa.eu/info/publications/2021-commission-work-programme-key-documents_en
COM DGs Strategic Plans 2020-24 https://ec.europa.eu/info/publications/strategic-plans-2020-2024_en

EU/Euratom Research and Training, broader perspectives

EU Enabling Framework for a 2050 Carbon-neutral economy



Source: European Political and Strategy Centre (EPSC)

EU-Energy and Climate Targets



Greenhouse Gas Emissions

2020	2030
-20%	≥-40%

at least 55%

Renewable Energy

2020	2030
20%	≥32%

Energy Efficiency

2020	2030
20%	≥32.5%

Climate in EU-funded programmes 2014-2020

2020	2030
20%	25%

Interconnection

2020	2030
10%	15%

CO2 from :

Cars	Vans	Lorries
2030		
-37.5%	-31%	-30%

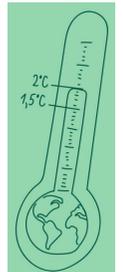
The European Green Deal

Increasing the EU's Climate ambition for 2030 and 2050

- European 'Climate Law' enshrining the 2050 climate neutrality objective in legislation by March 2020
- Comprehensive plan to increase the EU's climate target for 2030 to at least 50% and towards 55% in a responsible way by October 2020
- Review and revise where needed all relevant legislative measures to deliver on this increased ambition by June 2021
- Carbon border adjustment mechanism for selected sectors by 2021.
- A new EU Strategy on Adaptation in 2020/2021

The EU as a global leader | A European Climate Pact

The **2030 climate and energy** framework includes EU-wide targets and policy objectives for the period from 2021 to 2030.



- 2015 Energy union** https://ec.europa.eu/energy/topics/energy-strategy/energy-union_en
- 2019 National energy and climate plans (NECPs)** https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en
- 2019 EU Green Deal** https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
- 2020 Climate & Energy framework** https://ec.europa.eu/clima/policies/strategies/2020_en
- 2030 Climate & Energy framework** https://ec.europa.eu/clima/policies/strategies/2030_en
- 2050 Long-term strategy** https://ec.europa.eu/clima/policies/strategies/2050_en

Green Financing, Green Deal and Taxonomy



Events after the **2015 Paris Summit**

2016 – High-Level Expert Group on Sustainable Finance (HLEG)

2018 – EC Action Plan on financing sustainable growth

2018 – Establishment of TEG (Technical Expert Group on Sustainable Finance)

2020 – **Publication of the TEG Final Report** and its Technical Annex

2020 – EC prepared a ToR on 'Nuclear energy under the DNSH criterion'

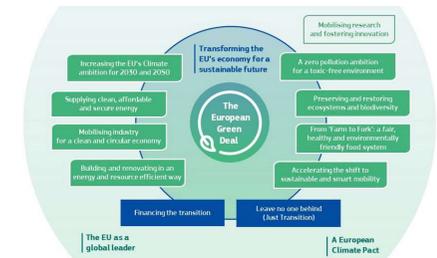
2020 – EC tasked JRC to perform **DNSH assessment of nuclear energy**

2021 – **March JRC Report, Opinion by Ext. Committees July (Art.31 Basic Safety Standards and SCHEER, Sci. Com. Health, Environmental and Emerging Risks)**

Taxonomy - A classification tool to help investors and companies to make informed investment decisions on environmentally sustainable economic activities

EU taxonomy for sustainable activities

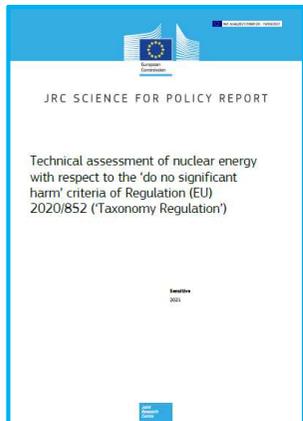
https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en



JRC's technical assessment of nuclear energy under Regulation (EU) 2020/852 (Taxonomy Regulation) and the "do no significant harm" criterion



June 2020, EC (through DG-FISMA) requested JRC to carry out "an extensive technical work on the DNSH aspects of nuclear energy" as recommended by the TEG final report of March 2020.



JRC report from March 2021 includes the effects of the whole nuclear energy life-cycle in terms of existing and potential environmental impacts across the taxonomy objectives, with emphasis on the management of the generated nuclear and radioactive waste. **The report found that: "The analyses did not reveal any science-based evidence that nuclear energy does more harm** to human health or to the environment than other electricity production technologies already included in the Taxonomy as activities supporting climate change mitigation".

JRC report: Technical assessment of nuclear energy with respect to the 'do no significant harm' criteria of Regulation (EU) 2020/852 ('Taxonomy Regulation') 387 pages!

https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/210329-jrc-report-nuclear-energy-assessment_en.pdf

Sustainable Finance and EU Taxonomy

COM(2021)188 final dated 21/04/2021



- ❑ **Commission takes further steps** EU Taxonomy, Corporate Sustainability Reporting, Sustainability Preferences and Fiduciary Duties: Directing finance towards the European Green Deal
- ❑ **Next steps in developing the EU Taxonomy ...** *(page 6): This complementary Delegated Act will cover nuclear energy subject to and consistent with the results of the specific review process underway in accordance with the EU Taxonomy Regulation. This process is based on the independent and scientific technical report published in March 2021 by the Joint Research Centre, the European Commission's science and knowledge service. A review of this report is ongoing through two groups of experts, Euratom Article 31 experts group and the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER), to complete the scientific evaluation and it will be finalised in June 2021.*

Sustainable finance package 21/04/2021 https://ec.europa.eu/info/publications/210421-sustainable-finance-communication_en

Taxonomy Climate Delegated Act <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0188>

PRESS Release https://ec.europa.eu/commission/presscorner/detail/en/IP_21_1804

Q/A https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_1805

EIB Group Climate Bank Roadmap 2021-25

dated 13/11/2020



EIB Group
Climate Bank Roadmap
2021-2025
Version discussed by the EIB Board of Directors
on 11 November 2020



La Banque européenne d'investissement (BEI) a rendu publique, le vendredi 13 novembre 2020, sa feuille de route climatique 2021-2025. En cohérence avec son ambition de devenir une véritable « banque du climat », la BEI continuera de soutenir les projets de recherche dans l'énergie nucléaire

Innovation

- Research, development, demonstration, and commercialisation of innovative low-carbon energy technologies, including renewables, carbon capture and storage (CCS), nuclear fission and fusion, renewable energy conversion and storage and all related ICT solutions.

https://www.eib.org/attachments/strategies/eib_group_climate_bank_roadmap_en.pdf

Perspectives... to capitalise initiatives

- Under Euratom, EC should promote and facilitate EU Nuclear safety R&D in MS, cooperation IAEA, NEA, GIF
- ETIPs Technology Platforms are industry led to promote R&D and demonstration of EU fission technologies
- EU fora supporting nuclear policy, promoting stakeholders dialogue and safety improvements
- ENEF from 2007 and WG Transparency, risks and opportunities
- ENSREG from 2007, stress tests peer reviews
- SNETP composed of NUGENIA, ESNII and NC2I pillars
- SET-Plan Key action n.10 on nuclear fission and fusion
- IGDTP on geological disposal, and EJP EURAD
- MELODI with NERIS-TP, EURADOS and Alliance
- ENEN European Nuclear Education Network, EHRO-N
- INCO structured dialogue on R&D policy and priorities



Thank You!



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Publications – CORDIS (EC R&D Information Service)

**View all H2020 Euratom projects summaries
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<https://cordis.europa.eu/>

H2020 Euratom projects (All)

[https://cordis.europa.eu/search?q=contenttype=%27project%27%20AND%20\(programme/code=%27H2020%27%20OR%20programme/code=%27H2020-Euratom%27\)%20AND%20\(%27euratom%27\)&p=1&num=100&srt=Relevance:decreasing](https://cordis.europa.eu/search?q=contenttype=%27project%27%20AND%20(programme/code=%27H2020%27%20OR%20programme/code=%27H2020-Euratom%27)%20AND%20(%27euratom%27)&p=1&num=100&srt=Relevance:decreasing)

... Latest relevant projects summaries !

Conferences' Proceedings FISA 2019 / EURADWASTE '19 ... available!



FISA 2019 Proceedings

<https://op.europa.eu/en/publication-detail/-/publication/9cfc43f8-cbc7-11ea-adf7-01aa75ed71a1/language-en/format-PDF/source-140481060>



EURADWASTE '19 Proceedings

<https://op.europa.eu/en/publication-detail/-/publication/fe1b968b-cbc8-11ea-adf7-01aa75ed71a1/language-en/format-PDF/source-140505052>

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<https://www.epj-n.org/component/toc/?task=topic&id=1169>


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Romanian Presidency of the Council of the EU in 2019 Conferences <http://fisa-euradwaste2019.nuclear.ro/>

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Pitești, Romania, 4-7 June 2019