

Industrial Technology Initiatives

Increasing the IMPACT of your project

- *NSC*
- *EMMC*
- *EPPN*
- *EMCC*
- *ECHOES*

Nanosafety Cluster (NSC)

***NanoSafety
Cluster***





Nanosafety Cluster

- = *open high profile platform* for coordination of nanosafety research in Europe
 - = providing *strategic direction* for the EU and the Member States
 - = enhancing synergies between running and newly starting projects
 - = *preserving the outputs and data* from ended projects
 - = an initiative of the European Commission Directorate-General for Research and Innovation (DG RTD), which sponsors these large projects assuring environmental health and safety (EHS)
 - if you have an interest in EHS and nanotechnology, you are very welcome to participate in Cluster activities whether or not you are a partner in formal European projects: www.nanosafetycluster.eu
 - more information: info@nanosafetycluster.eu
- NSC Contacts** (University of Birmingham):
- Anastasios Papadiamantis: A.Papadiamantis@bham.ac.uk
 - Thomas Carney: T.Carney@bham.ac.uk



NSC Working Groups

- *NSC Dissemination Group*
- *WG A: Communication, Training and Education*
- *WG B: Materials and Standards*
- *WG C: Exposure & Hazard Assessment*
- *WG D: Models and Tools for Risk Assessment*
- *WG E: Innovation and Safer by Design*
- *WG F: Data Management*
- *WG G: Regulations & Risk Governance*

Please sign up for one or more WGs. This will automatically put you on the general e-mail distribution list for receiving e.g. the NSC Newsletter and important announcements from the Coordination team.

European Materials Modelling Council (EMMC)

**Materials Modelling
in LEIT NMBP**



EMMC

Taxonomy

First step towards an ontology is a taxonomy.

Definition of:

- Concepts
- Vocabulary
- Classifications

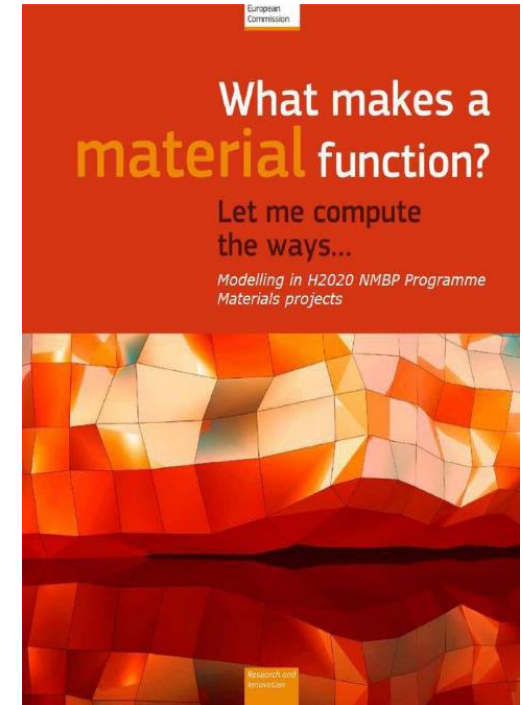
Ontologies

RoMM - Concepts, vocabulary and
classification of models, workflow
descriptions

CEN-CWA - Standard on taxonomy

EMMO - European Materials Modelling
Ontology

Industry Commons - NMBP-wide ontology



CEN-CENELEC CWA
17284:2018

EMMC

MODA

A unified presentation of simulation.

MODA take the modeller by the hand and ask the relevant questions step by step. Templates and examples and a creation tool can be found on <https://emmc.info/moda/>

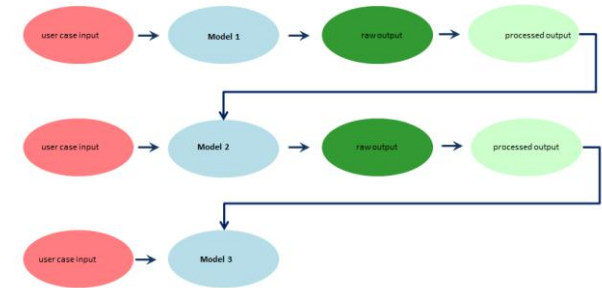
Market Place

Connect relevant actors, facilitate collaboration, **collect materials data**, accelerate modelling solutions development

To watch

- **EMMC-CSA WG on material modelling market places**
- **H2020 projects VIMMP and MARKETPLACE**
- **WP2020: Ontologies and Market Place for all NMBP results**

Connect via <http://www.emmc.info>



European Pilot Production Network (EPPN)

EPPN 

WHAT EPPN OFFERS



INTERNATIONALIZATION

- Facilitate cross-border access to specialized facilities & expertise



VALUE FOR MONEY

- Increased return on investment in research



NETWORKING

- Bring together actors of the value chains
- Access to an active Network of Pilot Lines and OTIBs
- Possibility to compare based on various parameters



FASTER MARKET ENTRY

- Accelerated development of technology enabled products.
- Assistance for users to develop new technology and products.

INFORMATION AND HARMONISATION

- Access to high-quality, reliable and updated information.
- Support the implementation of harmonized conditions.





European
Commission



WHAT'S IN IT FOR YOU?

Pilot lines and Open Innovation Test Beds

Register and instantly grow
your customer base, join the
thematic groups and get
access 1st hand to best
practice experience:



Outreach to SMEs



Support on increasing business and
RTD services



Support on international branding and
networking



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the European Union's Horizon 2020
research and innovation programme
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Register: <http://eppn.eu> **Email:** contact@eppn.eu

European Materials Characterisation Council (EMCC)



EMCC – General Information

- ✓ The European Materials Characterisation Council (EMCC) is a European initiative set up at the beginning of 2016, based on and strengthening the existing European Materials Characterisation Cluster (created at the end of 2014).
- ✓ The EMCC is a bottom-up activity based on the involvement and support of a wide range of stakeholders.
- ✓ The aim of the EMCC is to support the process of *developing and improving characterisation tools* to bring the development of nanomaterials and advanced materials in Europe into end products more successfully.
- ✓ Coordination between European, national, regional initiatives and Member State support and contribution will be essential to reach full impact of the EMCC.

How to interact/join EMCC



<http://www.characterisation.eu>

HOME

PROJECTS

WORKING GROUPS

NEWS & EVENTS

PUBLICATIONS/OUTPUT

MEMBER'S AREA

JOIN US

CONTACT



EMCC – Objectives

- ✓ **To support establishing a community of European stakeholders in the process of developing and improving characterisation tools in order to bring the development of nanomaterials and advanced materials in Europe into end products more successfully.**
- ✓ **To gather the needs and requirements of that community for characterisation tools and supporting actions.**
- ✓ **To provide a forum for discussion, problem solving and planning R&I activities in Europe.**
- ✓ **To establish the formation of standard methodologies on nanocharacterisation in Europe, and create a common background.**
- ✓ **To create a platform for nanocharacterisation, with the attempt to act with Open Research Data.**
- ✓ **To link nanometrology with in-situ monitoring and industrial needs.**
- ✓ **To provide a suitable background for regulation and nanosafety.**
- ✓ **To support policy development, underpinning the relevant EC priorities, with a stakeholder driven roadmap for characterisation techniques for engineering and upscaling of nano-materials and advanced materials in Europe. This activity is to support the strengthening of Europe's industrial capacity and competitiveness.**

Commission proposal for
Horizon Europe

THE NEXT EU RESEARCH & INNOVATION
PROGRAMME (2021 – 2027)

#HorizonEU



Horizon Europe

is the Commission proposal for a **€ 100 billion** research and innovation funding programme for seven years (2021-2027)



to strengthen the EU's scientific and technological bases



to boost Europe's innovation capacity, competitiveness and jobs

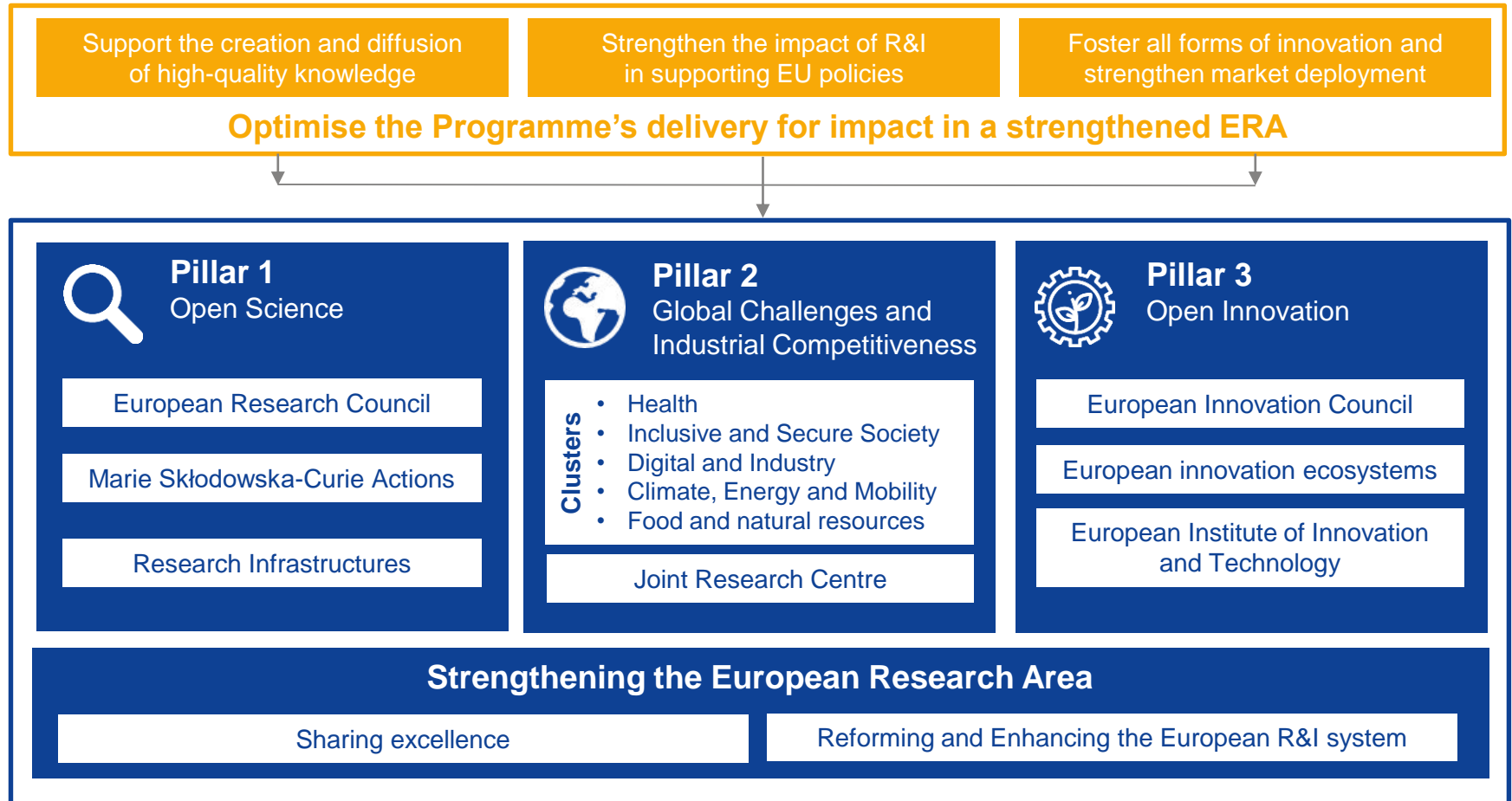


to deliver on citizens' priorities and sustain our socio-economic model and values

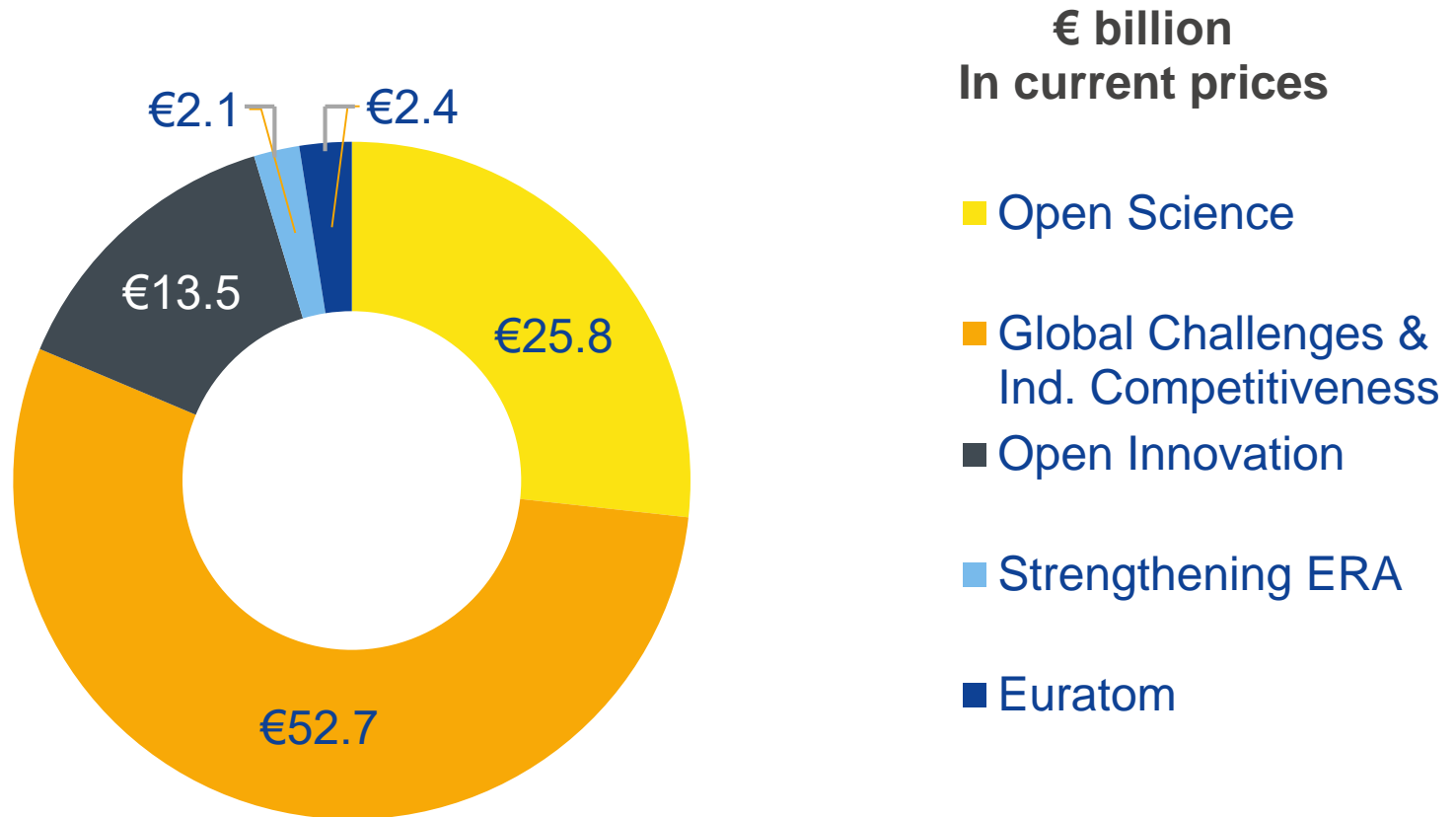
€ 4.1 billion are proposed to be allocated for defence research, in a separate proposal for a European Defence Fund

Horizon Europe: evolution not revolution

Specific objectives of the Programme



Budget: €100 billion*



* This envelope includes EUR 3.5 billion allocated under the InvestEU Fund.

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

European Innovation Council

R&I Missions

Extended association possibilities

Open science policy

New approach to Partnerships

Horizon Europe – In detail

Pillar 1

OPEN SCIENCE:

reinforcing and extending the excellence of the Union's science base

European Research Council

- Frontier research by the best researchers and their teams

€ 16.6 billion

Marie Skłodowska-Curie Actions

- Equipping researches with new knowledge and skills through mobility and training

€ 6.8 billion

Research Infrastructures

- Integrated and inter-connected world-class research infrastructures

€ 2.4 billion

Pillar 2

Global Challenges & Industrial Competitiveness:

boosting key technologies and solutions underpinning EU policies & Sustainable Development Goals

Clusters implemented through usual calls, missions & partnerships	Budget (€ billion)
Health	€ 7.7
Inclusive and Secure Society 	€ 2.8
Digital and Industry	€ 15
Climate, Energy and Mobility	€ 15
Food and Natural Resources	€ 10
Joint Research Centre supports European policies with independent scientific evidence & technical support throughout the policy cycle	€ 2.2

Pillar 3

OPEN INNOVATION:

stimulating market-creating breakthroughs and ecosystems conducive to innovation

European Innovation Council

- Support to innovations with breakthrough and market creating potential

€ 10.5 billion, incl. up to € 500 million for ecosystems

European innovation ecosystems

- Connecting with regional and national innovation actors

European Institute of Innovation and Technology (EIT)

- Bringing key actors (research, education and business) together around a common goal for nurturing innovation

€ 3 billion

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<https://www.facebook.com/EUScienceInnov/>

<https://www.facebook.com/cmoeidas/>

Horizon Europe dedicated website

<http://ec.europa.eu/horizon-europe>

European Innovation Council

<http://ec.europa.eu/research/eic>

EU budget for the future

http://ec.europa.eu/budget/mff/index_en.cfm

