European Commission

THE EU FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

H2020 – Energy Calls 2016-2017

Energy Community
Energy Efficiency Coordination Group
Vienna, 11 March 2016

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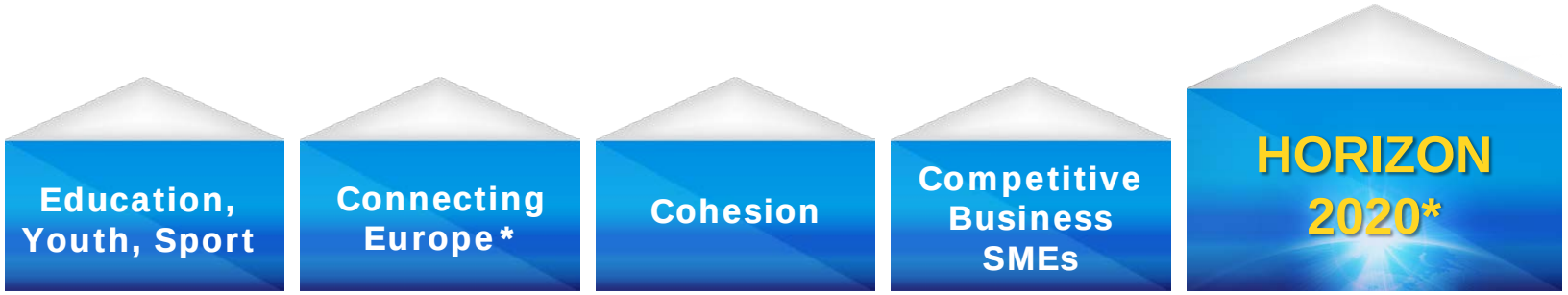
European Commission

The Multiannual Financial Framework 2014-2020:

Key challenge: stabilise the financial and economic system while taking measures to create economic opportunities.

1. **Smart & inclusive growth* (€451 billion)**



2. **Sustainable growth, natural resources (€373 billion)**
3. **Security and citizenship (€16 billion)**
4. **Global Europe (€58 billion)**
5. **Administration (€61.6 billion)**

TOTAL €960 billion

(figures are given in constant prices)

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What is Horizon 2020?

- **The European Union programme for research and innovation for 2014-2020 with a budget of €77 billion (in current prices that include inflation, comprising both the TFEU and Euratom parts).**

- **A core part of Europe 2020, Innovation Union & European Research Area:**

  – Responding to the economic crisis to invest in jobs and growth.
  – Addressing people's concerns about their livelihoods, safety and environment.
  – Strengthening the EU's global position in research, innovation and technology.

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What is new?

- **A single programme** bringing together three separate programmes/initiatives*.
- **Coupling research to innovation** – from research to retail, all forms of innovation.
- **Focus on societal challenges** facing EU society, e.g. health, clean energy and transport.
- **Simplified access,** for all companies, universities, institutes in all EU countries and beyond.

* **The 7th Research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT) – There is a separate programme for Euratom activities**

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Three priorities

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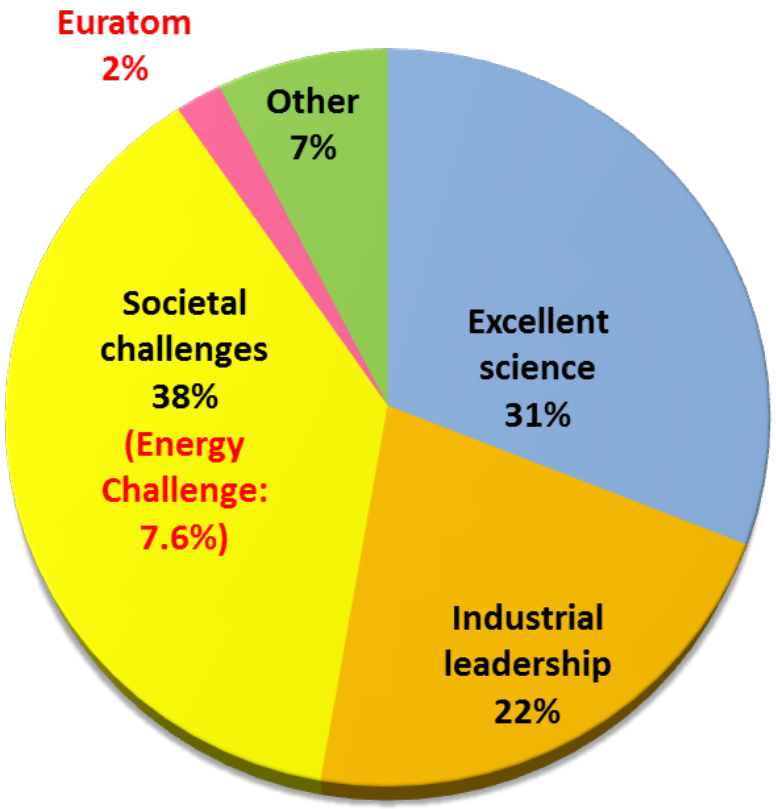
Horizon 2020 – Overall budgets



Total budget H2020: EUR 74,83 billion.

Societal challenges: EUR 29,37 billion.

Energy Challenge: **EUR 5,69 billion.**

Priority 3.
Societal challenges

Why:

- **Concerns of citizens and society / EU policy objectives (climate, environment, energy, transport, etc) cannot be achieved without innovation.**
- **Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities.**
- **Promising solutions need to be tested, demonstrated and scaled up.**

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A single programme covering the <u>whole innovation cycle</u> to bring bright research ideas to the market

R&D, Public Private Partnerships

Market uptake activities

FP 7

Intelligent Energy Europe

Market uptake: At least 15% of the overall budget of Energy Challenge.

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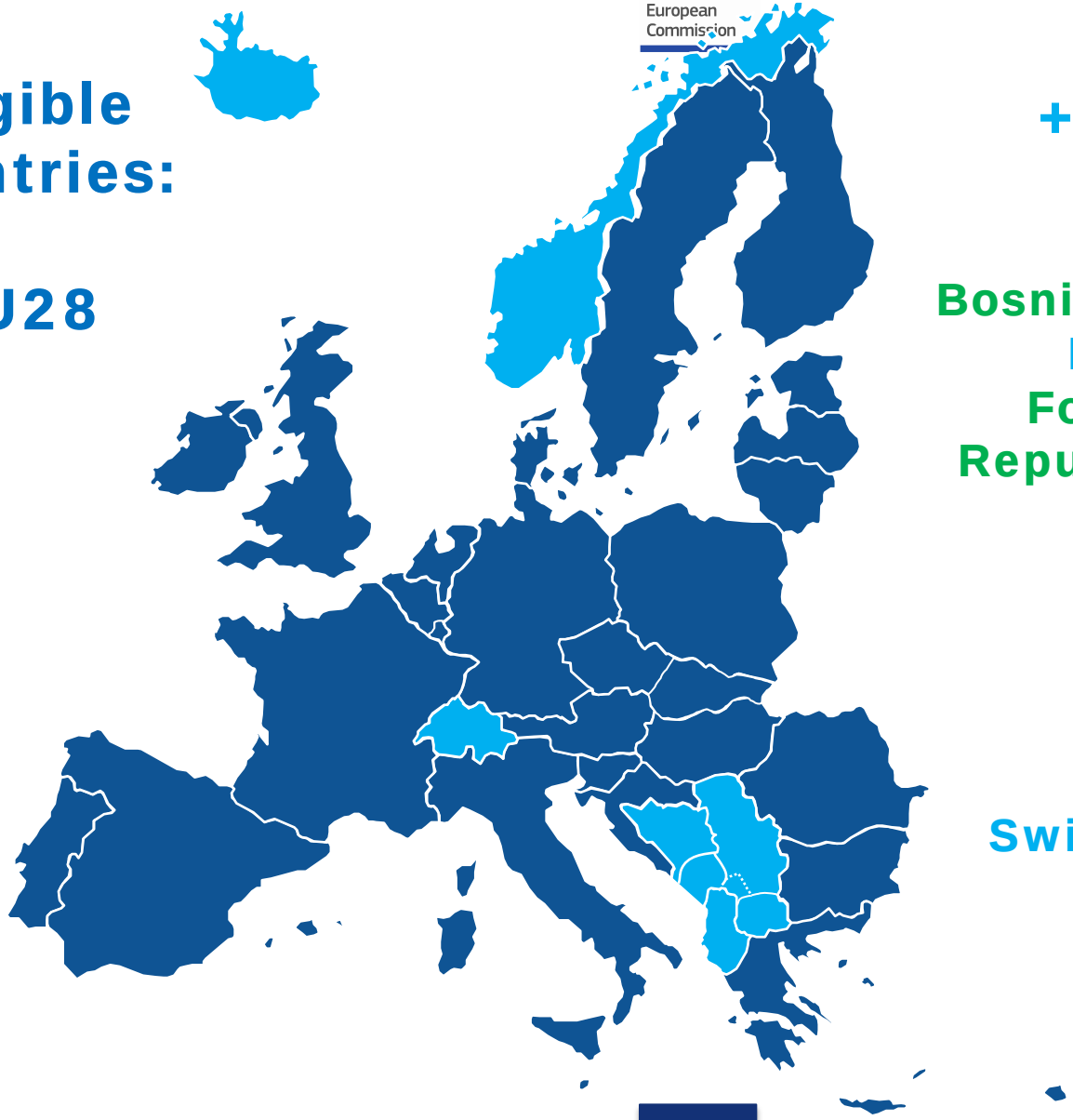
Eligible countries:

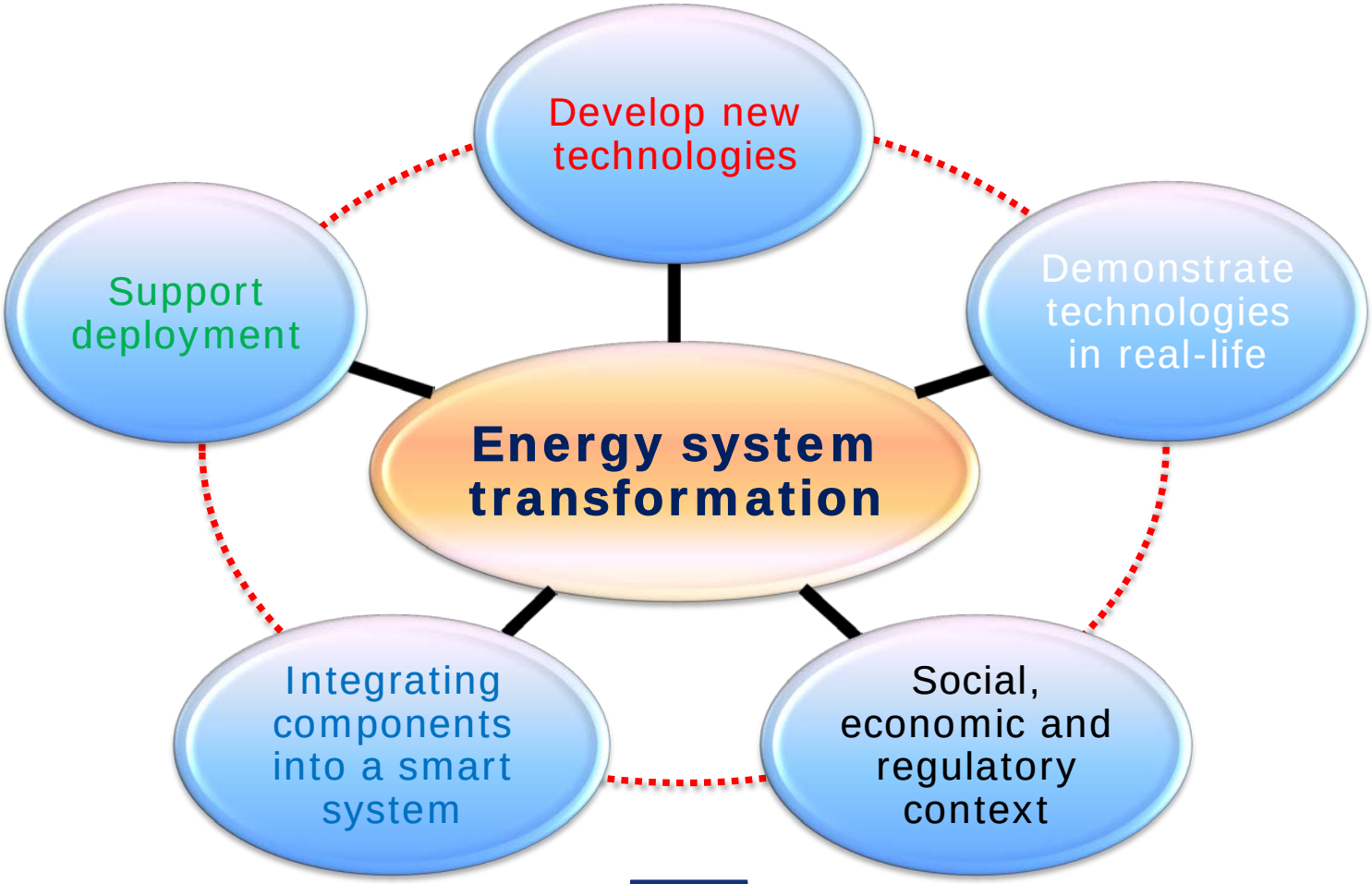
EU28



+ Associated Countries:

- Albania
- Bosnia and Herzegovina
- Faroe Islands
- Former Yugoslav Republic of Macedonia
- Iceland
- Israel
- Moldova
- Montenegro
- Norway
- Serbia
- Switzerland (partial association)
- Turkey
- Ukraine

Systemic approach of the Energy Challenge



Energy Challenge - Areas and responsible services

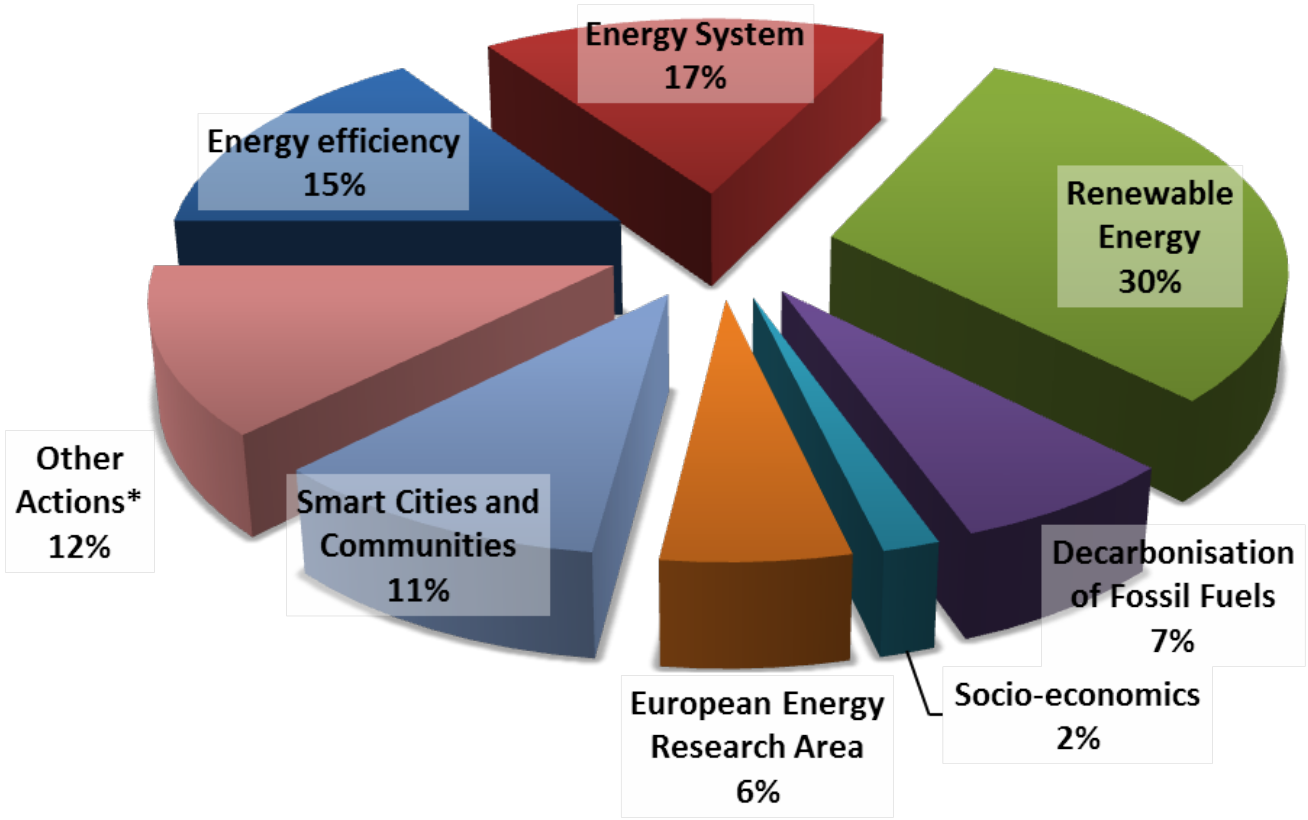
Energy Efficiency (EE)
- Heating and Cooling
- Engaging consumers
- Buildings
- Industry, Services and Products
- Innovative financing
  - ➢ ENER.C3

Competitive low-carbon energy Technologies (LCE)
- Energy system (grids, storage)
  - ➢ ENER.C2
- Renewable energies
  - ➢ RTD.G3
- Decarbonising fossil fuels
  - ➢ RTD.G2
- Socio-economic research
- European Research Area
  - ➢ RTD.G1

Smart Cities and Communities (SCC)
- Light-house demonstration projects
  - ➢ ENER.C2

SME instrument (SIE)
Bottom-up

Energy calls 2016-2017 budget distribution



Total budget 2016-2017: EUR 1 344 million

* ***Other Actions*** = actions not implemented through calls for proposals

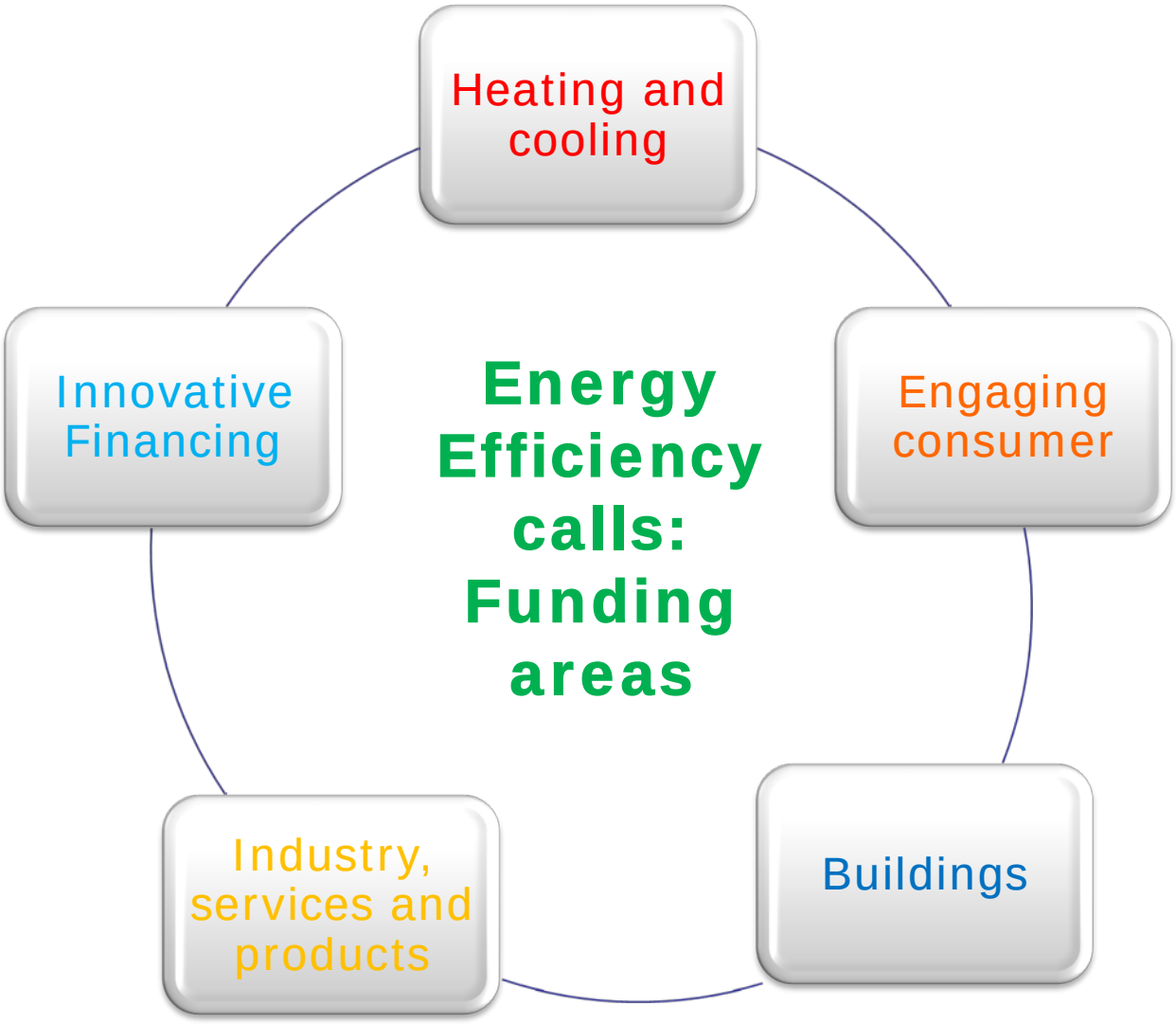
Implementation of the Energy Challenge

European Commission	Executive Agency
• Defines strategy, objectives and priority areas/work programmes • Makes programme decisions • Evaluates the programme and the Agency's performance	• Organises Calls for proposals • Monitors the technical and financial implementation of projects • Ensures sound financial management • Manages project life-cycle

H2020 EE 2016-2017 WP: Policy context

Energy Union Roadmap ➡ WP 2016-2017

➢ EU Energy Efficiency legislation **implementation**.	✓ **Policy enabling actions:** EED, energy efficiency products legislation, EPBD.
➢ New Deal for Energy **Consumers**.	✓ A specific consumer-focused area.
➢ **Heating and Cooling Strategy**.	✓ More dedicated topics on heating and cooling.
➢ EU support to **finance** energy efficiency.	✓ Building business case for energy efficiency.


Heating and cooling
Engaging consumer
Buildings
Industry, services and products
Innovative Financing
Energy Efficiency calls: Funding areas

Energy Efficiency Calls

Types of action

Research & innovation
actions that establish new knowledge or develop more energy-efficient technologies and solutions.

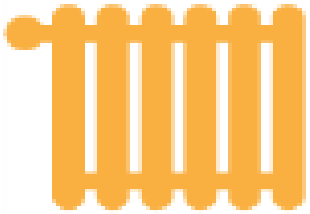
EU funding rate: 100%.

Innovation
actions that demonstrate the viability of new technologies and solutions or support their first deployment in the market.

EU funding rate: 70%.

Coordination & support
actions* that improve skills, mobilise large-scale investments or facilitate EU policy implementation.

EU funding rate: 100%.



Heating & Cooling Topics 2016-2017

Innovation in **waste heat recovery** and **reuse technologies** (in cities and industry).

- *Topics EE-1-2017, EE-17-2016-2017, EE-20-2017*

District heating networks: innovation in urban waste heat reuse in DH, replication of efficient retrofitting of DH networks.

- *Topics EE-1-2017, EE-2-2017*

Research and innovation of **efficient and low-carbon H&C technologies**.

- *Topic EE-3-2016, EE-4-2016-2017*

Consumer engagement Topics 2016-2017

Engaging private consumers towards sustainable energy.

- *Topic EE-6-2016-2017*

Behavioural change toward energy-efficiency through ICT.

- *Topic EE-7-2016-2017*

Socio-economic research on consumer's behaviour related to energy efficiency.

- *Topic EE-8-2016*

Engaging and activating public authorities.

- *Topic EE-9-2016-2017*

Buildings – Topics 2016-2017

Deep renovation of buildings.

- *Topics EE-10-2016 (EeB-PPP), EE-11-2016-2017*

Demand response in energy management systems.

- *Topic EE-12-2017 (EeB-PPP)*

Cost reduction of new Nearly Zero-Energy buildings.

- *Topic EE-13-2016*

Construction skills.

- *Topic EE-14-2016-2017*

Industry, services and products Topics 2016-2017

Capacity building in industry and energy services for industrial parks.

- *Topic EE-15-2017, EE-18-2017*

Waste heat recovery / Energy symbiosis in industrial systems.

- *Topic EE-17-2016-2017 (SPIRE-PPP)*

Joint energy-efficiency R&I efforts in industry & services (ERA-NET Cofund).

- *EE-21-2016*

Effective implementation of EU product legislation.

- *Topic EE-16-2016-2017*

Energy efficient and integrated data centres.

- *Topic EE-20-2017*

Public procurement of innovative energy efficiency solutions.

- *Topic EE-19-2017*

Financing Energy Efficiency Topics 2016-2017

Aggregation - Project development assistance.

- *Topic EE-22-2016-2017*

De-risking - Standardisation and benchmarking and innovative financing schemes.

- *Topic EE-24-2016, EE-23-2017*

Market based culture - Energy efficiency services.

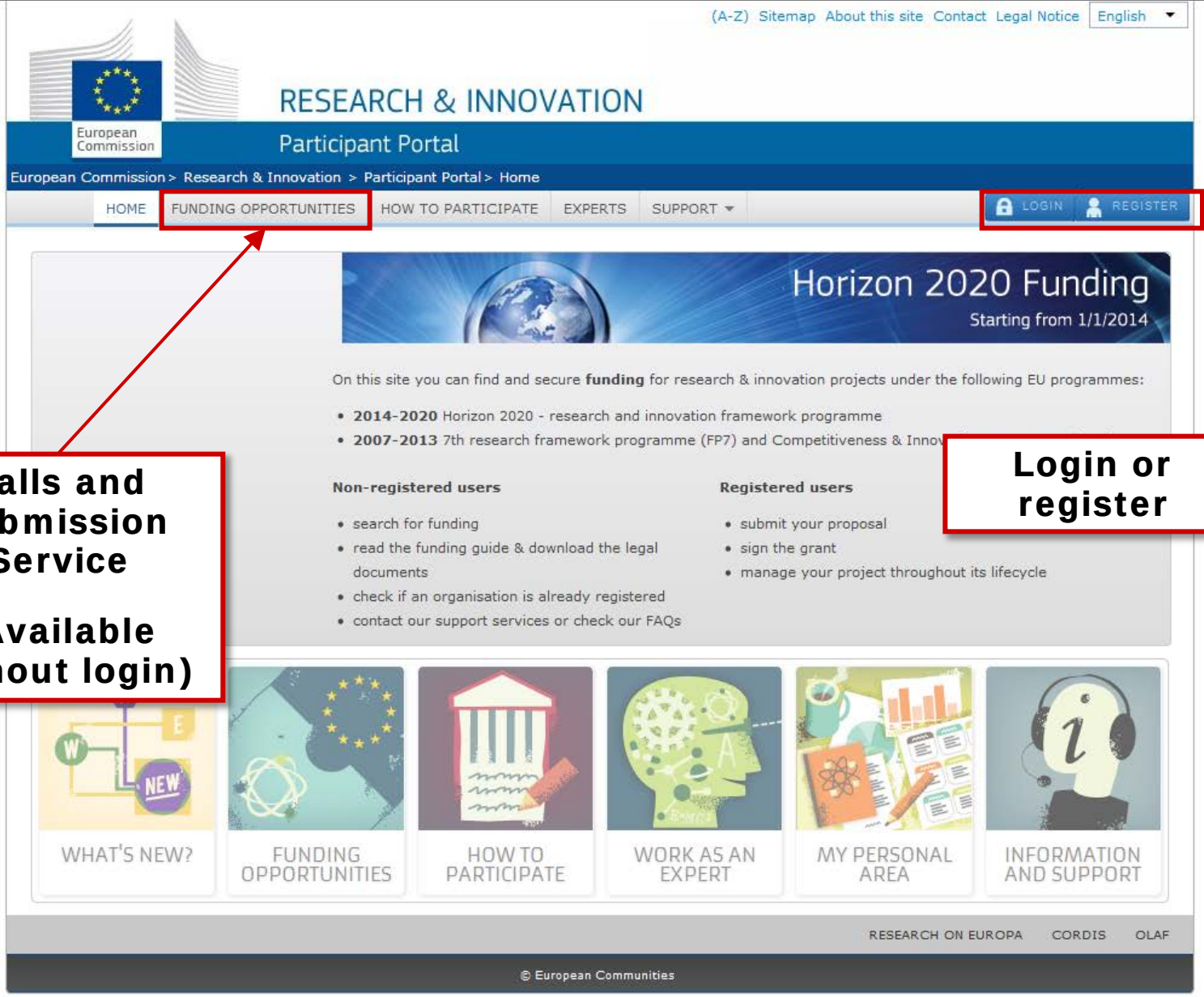
- *Topic EE-25-2016,*

EE Call 2016 Topics

Code		Type	Budget (M€)	Deadline
EE-03	Standardised installation packages integrating renewable and energy efficiency solutions for heating, cooling and/or hot water preparation	IA	34	**21 Jan**
EE-04	New H/C solutions using low grade sources of thermal energy	RIA		
EE-05	Models & tools for heating and cooling mapping and planning	RIA		
EE-07	Behavioural change toward energy efficiency through ICT	IA		
EE-08	Socio-economic research on consumer's behaviour related to energy efficiency	RIA		
EE-10	Supporting accelerated and cost-effective deep renovation of buildings (EeB-PPP)	IA	16	**21 Jan**
EE-17	Valorisation of waste heat in industrial systems (SPIRE-PPP)	IA		
EE-06	Engaging private consumers towards sustainable energy	CSA	30	**15 Sep**
EE-09	Engaging and activating public authorities	CSA		
EE-11	Overcoming market barriers and promoting deep renovation of buildings	CSA		
EE-13	Cost reduction of new Nearly Zero-Energy buildings	CSA		
EE-14	Construction skills	CSA		
EE-16	Effective implementation of EU product efficiency legislation	CSA		
EE-24	Making the energy efficiency market investible	CSA		
EE-25	Development and roll-out of innovative energy efficiency services	CSA		
EE-21	ERA-NET Cofund actions supporting Joint Actions towards increasing energy efficiency in industry and services	ERA-NET	5	**15 Sep**
EE-22	Project Development Assistance	CSA	8	**15 Sep**

EE Call 2017 Topics

Code		Type	Budget (M€)	Deadline
EE-01	Waste heat recovery from urban facilities and re-use to increase energy efficiency of district or individual heating and cooling systems	IA	30	**19 Jan**
EE-04	New H/C solutions using low grade sources of thermal energy	RIA		
EE-07	Behavioural change toward energy efficiency through ICT	IA		
EE-20	Bringing to market more energy efficient and integrated data centres	IA		
EE-17	Valorisation of waste heat in industrial systems (SPIRE PPP)	IA	16	**19 Jan**
EE-12	Integration of Demand Response in Energy Management Systems while ensuring interoperability (EeB PPP)	IA		
EE-02	Improving the performance of inefficient district heating networks	CSA	47	**07 June**
EE-06	Engaging private consumers towards sustainable energy	CSA		
EE-09	Engaging and activating public authorities	CSA		
EE-11	Overcoming market barriers and promoting deep renovation of buildings	CSA		
EE-14	Construction skills	CSA		
EE-15	Increasing capacities for actual implementation of energy efficiency measures in industry and services	CSA		
EE-16	Effective implementation of EU product efficiency legislation	CSA		
EE-18	Energy efficiency of industrial parks through energy cooperation and mutualised energy services	CSA		
EE-19	Public Procurement of Innovative Solutions for energy efficiency	PPI		
EE-23	Innovative financing schemes	CSA		
EE-24	Making the energy efficiency market investible	CSA		
EE-22	Project Development Assistance	CSA	8	**07 June**



Calls and Submission Service

(Available without login)

Login or register

http://ec.europa.eu/research/participants/portal

Information Resources (I)

- **H2020 Portal.**
- **National Contact Points:**

  http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html

- **Participant Portal H2020 Helpdesk.**

Information Resources (II)

- **Mailbox:** EASME-ENERGY@ec.europa.eu:
  - *No pre-proposal checks.*
- Horizon2020 and FP7 projects:
  - *CORDIS database.*
- 300+ Intelligent Energy Europe (IEE) projects, including various information platforms.
- H2020 Energy Efficiency and Market Uptake Calls 2016-17 Brokerage Event: https://www.b2match.eu/energy-csa-2016.

Thank you for your attention