



Philip Cheasty  
Enterprise Ireland  
National Contact Point  
For Energy in Horizon2020

<http://www.horizon2020.ie/>



Horizon 2020 (H2020) is the EU's Programme to support Research and Innovation. It has a budget of €75 billion and runs from 2014 to 2020. From January 2014-November 2015 Ireland had won €251 million. This performance has Ireland on track to achieve the national target of €1.25bn.



# H2020



## **SINGLE SET OF RULES** *for Horizon 2020*

- Covering all research programmes and funding bodies (CIP, art.185 initiatives, art. 187 initiatives,, EIT) ... ..but flexible to accommodate specificities where needed (including through delegated acts).
- In accordance with the new Financial Regulation and its Rules of Application.
- **Coherent with the rules of the other EU programmes.**
- Also applicable to Euratom.



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**BUDI** - Pilot Actions to develop a functioning market for energy performance certificates (BUDI)

Start date 01/01/2005 - End date 31/07/2007 (Closed)

Energy efficiency (SAVE)>Buildings

BUDI aimed to get energy performance certification of buildings on the move via a regional approach which focused on two key building types: apartment blocks and public buildings. The plan was to...

[BUILD UP Skills Ireland \(BUILD UP SKILLS IE\)](#)

Start date 01/11/2011 - End date 30/04/2013 (Closed)

Integrated Initiatives>BUILD UP Skills

The Residential and Commercial/Public Sector accounted for approximately 43% of energy consumption in Ireland in 2009 (SEAI, 2010). Data from the Quarterly National Household Surveys (CSO, 2011)...



**Clean Drive** - A campaign for cleaner vehicles in Europe (CLEAN DRIVE)

Start date 16/04/2010 - End date 15/04/2013 (Closed)

Transport (STEER)>Alternative fuels & vehicles

Clean Drive is an action for cleaner vehicles in Europe. It aims to increase awareness and implement actions by car-dealers, car-rental companies and car-leasing companies as a part of the strategy...



Collecting data from energy certification to monitor performance indicators for new and existing buildings (DATAMINE)

Start date 01/01/2006 - End date 31/12/2008 (Closed)

Sectors

- [Alternative fuels & vehicles \(1\)](#)
- [Biobusiness \(2\)](#)
- [Bioenergy \(1\)](#)
- [Biofuels \(4\)](#)
- [BUILD UP Skills \(2\)](#)
- [Buildings \(17\)](#)
- [Businesses \(1\)](#)
- [Concerted Action \(2\)](#)
- [Consumer behaviour \(3\)](#)
- [Consumers and Products \(2\)](#)
- [EE + RES in Buildings \(3\)](#)
- [Electricity production \(8\)](#)
- [Energy education \(2\)](#)
- [Energy efficiency \(SAVE\) \(32\)](#)
- [Energy Services \(3\)](#)
- [Energy-efficient transport \(12\)](#)
- [Equipment and products \(4\)](#)
- [Financial mechanisms and incentives \(1\)](#)
- [Heating and Cooling \(8\)](#)
- [Industry \(5\)](#)
- [Integrated Initiatives \(22\)](#)
- [Local Energy Leadership \(3\)](#)
- [Monitoring and evaluation \(4\)](#)
- [Renewable energy \(ALTENER\) \(26\)](#)
- [Renewable Energy Consumers \(1\)](#)
- [Small-scale applications \(1\)](#)
- [Sustainable energy communities \(7\)](#)
- [Transport \(STEER\) \(13\)](#)

View more



# Horizon 2020

## 1. Excellent Science

European Research Council

Future and Emerging Technologies

Marie Curie Actions

Research Infrastructures

## 2. Industrial Leadership

- Leadership in Enabling & Industrial Technologies
- information and communication technologies
  - nanotechnologies
  - advanced materials
  - biotechnology
  - advanced manufacturing and processing
  - space

Access to Risk Finance

Innovation in SME

## 3. Societal Challenges

- 7 Challenges
- Health, Demographic Change and Wellbeing
  - Food security, sustainable agriculture, marine and maritime research and the bio-economy
  - **Secure, Clean and Efficient Energy**
  - Smart, Green and Integrated Transport
  - Climate Action, Resource Efficiency and Raw Materials
  - Europe in a changing world: Inclusive, Innovative and Reflective Societies
  - Secure Societies – Protecting Freedom and Security of Europe and its Citizens

Joint Research Centre (JRC)

Widening Participation

Science with & for Society

European Institute of Innovation and Technology (EIT)

Joint Programming P2P

Joint Technology Initiatives (JTIs) P2B

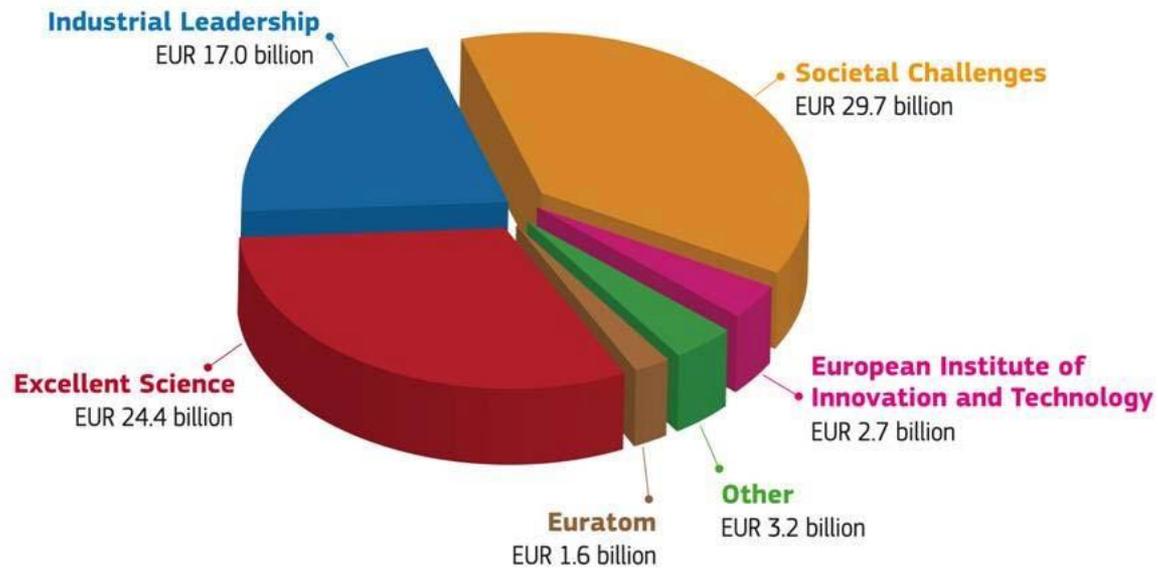


- **An instrument for growth and jobs**
- **A real break from the past:**
  - bringing together three separate programmes/initiatives into a **single programme**;
  - coupling research to innovation – from research to retail, all **forms of innovation**;
  - focusing on **societal challenges** facing EU society, e.g. health, clean energy and transport;
  - providing **simplified access**, for all companies, universities, institutes in all EU countries and beyond.



# Proposed funding (million euro, 2014-2020)\*

## HORIZON 2020 BUDGET (EUR 78.6 billion, current prices)





## Pillar 3. Societal Challenges

### Proposed funding (million euro, 2014-20)

<b>Health, demographic change and wellbeing</b>	<b>7 472</b>
<b>Food security, sustainable agriculture, marine and maritime research &amp; the bio-economy</b>	<b>3 851</b>
<b>Secure, clean and efficient energy*</b>	<b>5 931</b>
<b>Smart, green and integrated transport</b>	<b>6 339</b>
<b>Climate action, resource efficiency and raw materials</b>	<b>3 081</b>
<b>Inclusive and reflective societies</b>	<b>1 309</b>
<b>Secure societies</b>	<b>1 695</b>
<i>Science with and for society</i>	<i>462</i>
<i>Spreading excellence and widening participation</i>	<i>816</i>

\*Additional €1 050m for nuclear safety and security from the Euratom Treaty activities (2014-18). Does not include ITER.



# Societal Challenges

## Secure, Clean and Efficient Energy

**2 Year Workprogrammes – Current one is 2016/2017**

### **Type of Actions**

Research and Innovation Actions – R&IA

may include **basic and applied research**, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment *Funding rate*: maximum 100%.

Innovation Actions - IA

directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may **include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.**

*Funding rate*: maximum 70% (except for non-profit legal entities, where a maximum rate of 100% applies)

Coordination and support Actions – CSA – 100% funded.



# CSA's

## **Coordination and support actions (CSA)**

*Description:* Actions consisting primarily of accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure and may also include complementary activities of strategic planning, networking and coordination between programmes in different countries.

*Funding rate:* 100%

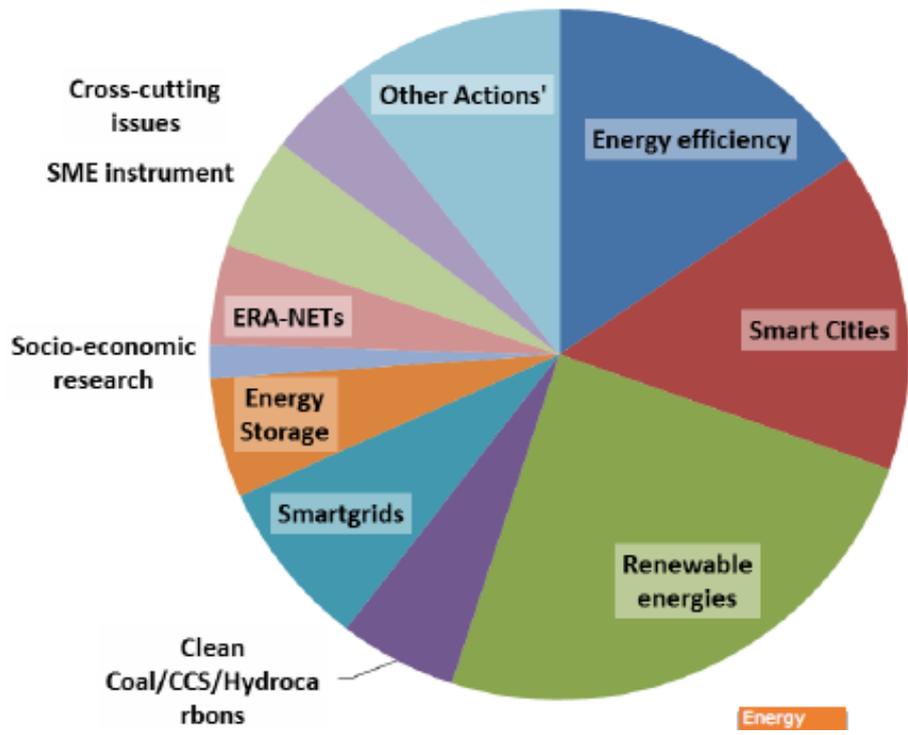
## **Minimum conditions**

- **Standard collaborative actions**
  - At least three legal entities each established in a different Member State or an Associated Country
- **ERC, SME instrument, programme co-fund, coordination and support, training and mobility actions:**
  - One legal entity established in a Member State or in an Associated Country



# Horizon 2020 Energy Challenge Budget

Indicative budget allocation for the Energy Work Programme 2014/2015



TOTAL budget for 2014-15:  
**EUR 1.254 million**

+ contribution to  
JTI Fuel Cells and Hydrogen  
in 2014-15:  
**EUR 130,5 million**

**= EUR 1.384,5 million**

Energy



## Workprogramme Energy Challenge: Secure, clean and efficient energy

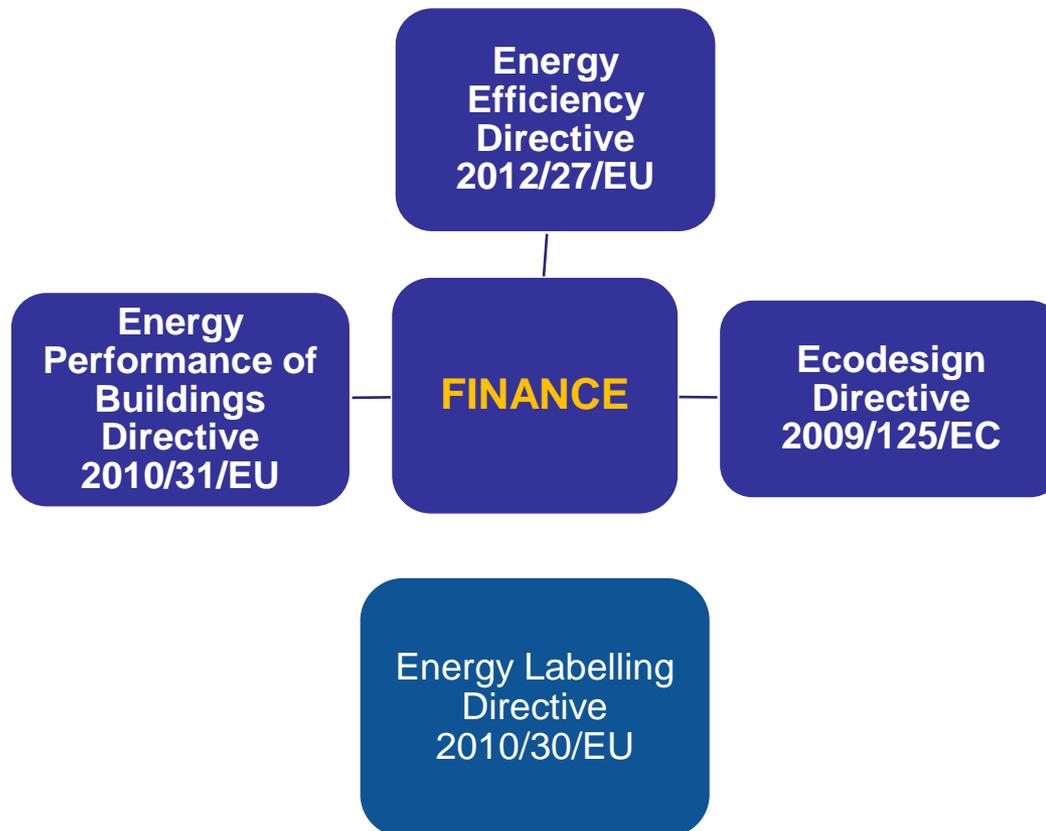
- Energy Efficiency (EE)
- Competitive Low Carbon Energy (LCE)
- Smart Cities and Communities (SCC)
- SME's and Fast track to Innovation (SIE)
- Other Actions

~50 topics / per workprogramme



# Framework energy efficiency policies

➤ *Delivering the 2020 & 2030 goals*





# EE Topic Examples

## CALL – ENERGY EFFICIENCY

### Heating and cooling

- EE 2 – 2017: Improving the performance of inefficient district heating networks **CSA**, €1-2m (07/Jun/2017)
- EE 4 – 2016/2017: New heating and cooling solutions using low grade sources of thermal energy. R&IA, TRL4-6, €3-4m 19/01/2017

### Engaging consumers towards sustainable energy

- EE 6 – 2016/2017: Engaging private consumers towards sustainable energy. **CSA**, €1-2m 15/09/2016 (07/Jun/2017)
- EE 7 – 2016/2017: Behavioural change toward energy efficiency through ICT. IA, TRL6, €1-2m 21/01/2016 (19/01/2017)
- EE 9 – 2016/2017: Engaging and activating public authorities. **CSA**, €1-2m 15/09/2016 (07/Jun/2017)



# EE Topic Examples

## CALL – ENERGY EFFICIENCY

### Buildings

- EE 11 – 2016/2017: Overcoming market barriers and promoting deep renovation of buildings. **CSA**, €1-2m 15/09/2016 (07/Jun/2017)
- EE 14 – 2016/2017: Construction skills. **CSA**, €1-2m 15/09/2016 (07/Jun/2017)

### Industry, services and products

- EE 15 – 2017: Increasing capacities for actual implementation of energy efficiency measures in industry and services. **CSA**, €1-2m 14/09/2017
- EE 16 – 2016/2017: Effective implementation of EU product efficiency legislation. **CSA**, €1-2m (07/Jun/2017)

### Innovative financing for energy efficiency investments

- EE 22– 2016/2017: Project Development Assistance. **CSA**, €0.5-1.5m 15/09/2016 (07/Jun/2017)



## **EE-06-2016-2017: Engaging private consumers towards sustainable energy**

**Specific Challenge:** Consumers should be considered at the heart of the energy system and become active market players. The future private consumer should be more aware, active, energy sufficient, as well as being a prosumer producing energy for their own consumption, where this is possible. Furthermore, in view of the fluctuation in energy prices, consumers are spending an increasing share of their income on energy, with estimates stating that more than 50 million Europeans are affected by energy poverty. Energy efficiency, energy savings and increased use of locally produced, including own produced, renewable energy are key tools in addressing fuel poverty. In this context, engagement actions are needed across Europe in order to achieve behavioural change towards more sustainable choices and decisions for energy. ....

**Scope:** Develop and roll out tailored and effective and innovative engagement actions to motivate changes in consumers' sustainable energy behaviour that would result in reduced energy consumption in buildings, heating/cooling systems and/or appliances. The proposed actions should focus on clearly defined target groups of private consumers (individuals or collectives), using market segmentation. ....

The proposed action should cover one or more of the following:

Empower and facilitate actions for consumers to become prosumers, or to form collective consumer groups/consumer cooperatives (addressing energy efficiency and/or renewable energy, and energy storage, where applicable, with a focus on action).....

**Expected Impact:** Proposed actions are expected to demonstrate the impacts listed below (wherever possible, use quantified indicators and targets), depending on the scope of the proposal:

Primary energy savings triggered by the project within its duration (in GWh/year per million Euro of EU funding);

Type of Action: Coordination and support action

# Award criteria: Research and Innovation Actions; Innovation Actions; SME instrument

## **1. Excellence**

- Ground-breaking nature (eg. level of ambition, beyond the state-of-the-art, novel approach, addresses challenge, ... )
- Conceptually robust; trans-disciplinarity considered...

## **2. Impact [...] extent to which project outputs contribute to:**

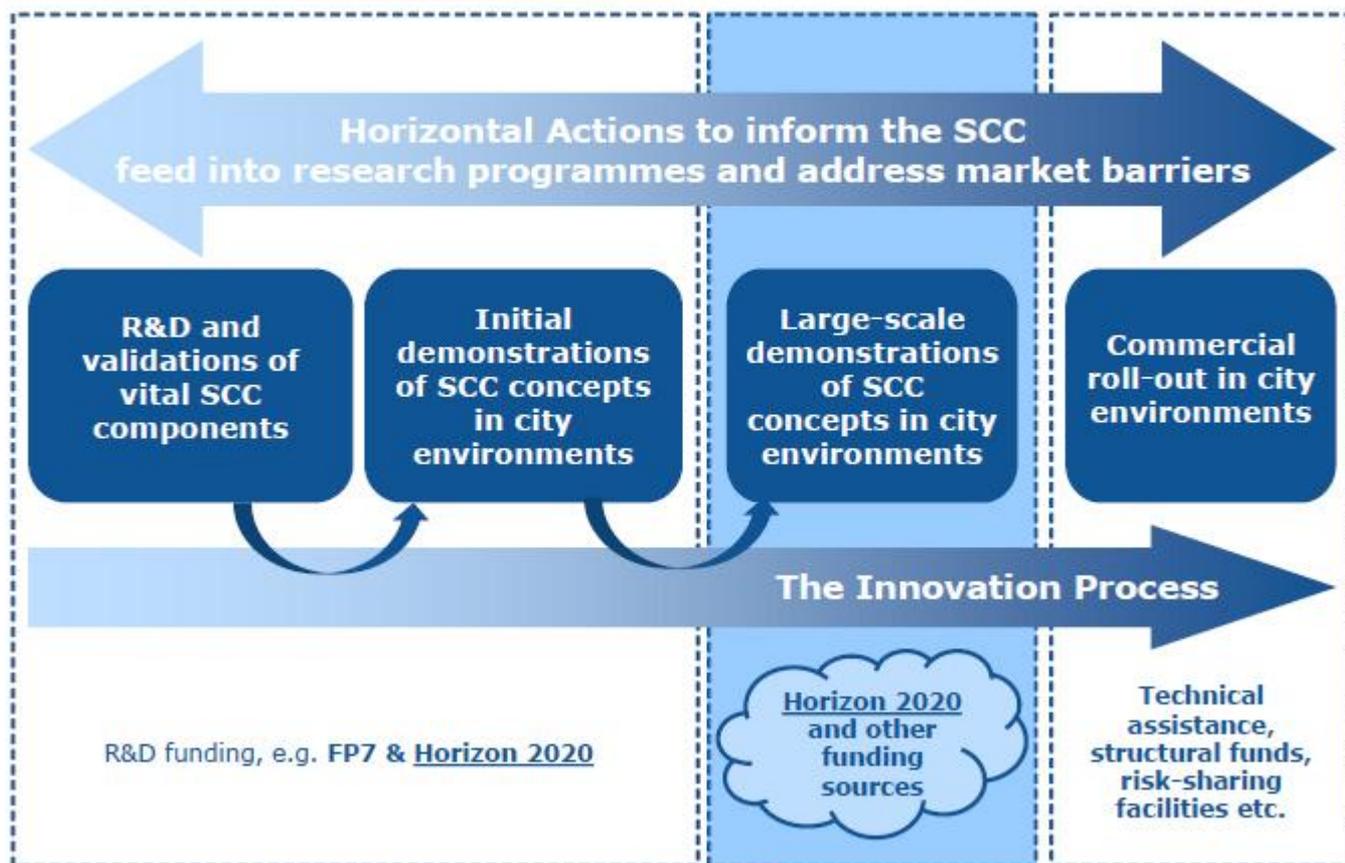
- The expected impacts listed in the work programme under the relevant topic;
- Enhancing innovation capacity and integration of new knowledge;
- Strengthening the competitiveness and growth of companies by developing innovations meeting the needs of European and global markets;
- Effectiveness of the proposed measures to communicate the project, disseminate and/or exploit the project results, and appropriate management of IPR.

## **3. Quality and efficiency of implementation**

- Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources;
  - Competences, experience and complementarity of the individual participants, as well as of the consortium as a whole;
  - Appropriateness of the management structures and procedures, including risk management.
-

# Smart Cities and Communities

## Innovation process and financing





H2020 Network <http://www.horizon2020.ie/>

Full list of NCPS

Academic and travel support from EI

EI clients feasibility grants.

Partner Search tools

LCE topics – need social science & humanities aspect

**Energy Efficiency Call for Proposals 2017 Info Day Monday 19 September 2016. Brussels.**



# SEAI

## **The Better Energy Communities programme.**

Better Energy is Ireland's national retrofit initiative aimed at **upgrading building stock and facilities** to high standards of **energy efficiency** and **renewable energy usage**, thereby reducing fossil fuel usage, energy costs and greenhouse gas emissions.

[http://www.seai.ie/Grants/Better\\_Energy\\_Communities/](http://www.seai.ie/Grants/Better_Energy_Communities/)

The Sustainable Energy Authority of Ireland (SEAI) is calling on community groups across Ireland to join the dedicated '**Sustainable Energy Community**' (**SEC**) **Network**. The aim of the Network is to catalyse and support a national movement of SECs operating in every part of the country.

<http://www.seai.ie/SEC/>



[philip.cheasty@enterprise-Ireland.com](mailto:philip.cheasty@enterprise-Ireland.com)

<http://www.horizon2020.ie/who-to-contact/>