

## **Aktuální výzvy SC3 – Zajištěná, čistá a účinná energie - programu H2020**

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# 4th Report on the state of Energy Union (zdroj: EK)



## Greenhouse Gas Emissions

2020	2030
<b>-20%</b>	<b>≥-40%</b>



## Renewable Energy

2020	2030
<b>20%</b>	<b>≥32%</b>



## Energy Efficiency

2020	2030
<b>20%</b>	<b>≥32.5%</b>



## Climate in EU-funded programmes 2014-2020

2020	2030
<b>20%</b>	<b>25%</b>



## Interconnection

2020	2030
<b>10%</b>	<b>15%</b>



## CO2 from :

Cars	Vans	Lorries
2030		
<b>-37.5%</b>	<b>-31%</b>	<b>-30%</b>

## Pracovní program 2018 – 2020 část ENERGY, verze z 24. 7. 2018

- **Úvod** – politický kontext programu; cíle v oblasti energetiky
- **Výzva** – popis jednotlivých témat (topics):
  - Specific Challenge – řešený problém
  - Scope – rozsah (oblast vymezená pro řešení problému)
  - Expected Impact – čeho je třeba dosáhnout
  - Type of Action – typ projektu (RIA, IA, CSA atd. – má dopad na financování projektu)
- **Podmínky výzvy** – otevření výzvy, uzávěrky, finance pro jednotlivá témata; doplňující podmínky
- **Transformace energetického sektoru prostřednictvím digitalizace** – témata pod ICT a Security
- OTHER ACTIONS – např. tendry
- Témata pro rok 2020 – výrazně upravována (EE transformováno na B4E) - předpoklad zveřejnění koncem června 2019

## Energetická účinnost: LCE-SC3-EE (1)

### Témata EE budou pro rok 2020 přeformulována pod část Buildings in Energy Transition

Oblast	Typ akce	Uzávěrka	TRL	Dopor. přísp. EK na projekt/ celkem na téma
<b><u>Zlepšování energetické účinnosti a inteligence budov</u></b>				
EE 1 – Decarbonisation of the EU building stock: innovative approaches and affordable solutions changing the market for building renovation <b>(EeB)</b>	<b>IA</b>	<u>3/9/2019;</u> 2020	to 8-9	3 – 4 mil. € /12 mil. €
EE 2 – Integrated home renovation services	<b>CSA</b>	<u>3/9/2019</u>		0,5–1,5 mil. € /10 mil. €
EE 3 – Stimulating demand for sustainable energy skills in the construction sector	<b>CSA</b>	<u>3/9/2019;</u> 2020		0,5–1 mil. €/ 6 mil. €
EE 4 - Upgrading smartness of existing buildings through innovations for legacy equipment <b>(EeB)</b>	<b>IA</b>	<u>3/9/2019;</u> 2020	6 - 8	3 – 4 mil. € /10 mil. €
EE 5 - Next-generation of Energy Performance Assessment and Certification <b>(EeB)</b>	<b>IA</b> <b>2019</b>	<u>3/9/2019;</u> 2020		2 – 2,5 mil. € /10 mil. €
<b><u>Energeticky účinný průmysl a služby</u></b>				
EE 6 – Business case for industrial waste heat/cold recovery <b>(SPIRE)</b>	<b>CSA</b> <b>2019</b>	<u>3/9/2019;</u> 2020		1 – 2 mil. € / 5 mil. €

## Energetická účinnost: LCE-SC3-EE (2)

Oblast	Typ akce	Uzávěrka	TRL	Dopor. přísp. EK na projekt / celkem na téma
EE 7 – Increasing energy efficiency of small data centres		2020		
EE 8 – Capacity building programmes to support implementation of energy audits	CSA	<u>3/9/2019</u>		1 – 2 mil. € /5 mil. €
<b><u>Energetická účinnost jako investice</u></b>				
EE 9 – Innovative financing for energy efficiency investments	CSA	<u>3/9/2019</u>		1 – 1,5 mil. € / 4 mil. €
EE 10 - Mainstreaming energy efficiency finance	CSA	<u>3/9/2019</u> ; 2020		1–1,5 mil. €/ 6 mil. €
EE 11 - Aggregation - Project Development Assistance	CSA	<u>3/9/2019</u> ; 2020		0,5–1,5 mil. € /6 mil. €
EE 12 - Innovation procurement for energy efficiency		2020		
<b><u>Energetická účinnost jako zdroj energie</u></b>				
EE 13 – Enabling next-generation of smart energy services valorising energy efficiency and flexibility at demand-side as energy resource	IA 2019	<u>3/9/2019</u> ; 2020		3 – 4 mil. €/ 8 mil. €

## Energetická účinnost: LCE-SC3-EE (3)

Oblast	Typ akce	Uzávěrka	TRL	Dopor. přísp. EK na projekt / celkem na téma
EE 14 – Socio-economic research conceptualising and modelling energy efficiency and energy demand <b>(SSH)</b>	<b>RIA</b>	<u>3/9/2019;</u> 2020		1 – 2 mil. € / 4 mil. €
<b><u>Podpora inovacím vycházejících z politik</u></b>				
EE 16 - Supporting public authorities to implement the Energy Union	<b>CSA</b>	<u>3/9/2019;</u> 2020		1– 1,5 mil. € /10 mil. €
EE 18 – Bioclimatic approaches for improving energy performance in buildings in Africa and Europe	<b>CSA</b>	<u>3/9/2019</u>		1 mil. € / 1 mil. €

## Vedoucí postavení v obnovitelných zdrojích energie: LCE-SC3-RES (1)

Oblast	Typ akce	Uzávěrka	TRL	Dopor. přísp. EK na projekt/ celkem na téma
RES 7 – Solar Energy in Industrial Processes - <b>SPIRE</b>	<b>RIA</b>	<u>27/8/2019</u>	To 4-5	3 – 5 mil. € / 10 mil. €
<b><u>Řešení obnovitelných zdrojů pro implementaci na úrovni spotřebitele</u></b>				
RES 9 – Next generation of thin-film photovoltaic technologies		2020		
RES 10 – Pre-Commercial Procurement for a 100% Renewable Energy Supply		2020		
<b><u>Umožnění flexibility energetického systému</u></b>				
RES 16 – Development of solutions based on renew. sources that provide flexibility to the energy system	<b>RIA</b>	<u>27/8/2019</u>	3-4 to 4-5	12 – 15 mil. € / 40 mil. €
RES 20 – Efficient combination of concentrated solar power (CSP) and desalination (with particular focus on the Gulf Cooperation Council (GCC) region)		2020		
<b><u>Obnovitelná paliva pro dopravu - Navýšení měřítka produkce paliv z obn. zdrojů (upscaling)</u></b>				
RES 23 - Development of next generation biofuel and alternative renewable fuel technologies for aviation and shipping	<b>RIA</b>	<u>27/8/2019</u>	3 to 5	3 – 5 mil. € / 20 mil. €

## Vedoucí postavení v obnovitelných zdrojích energie: LCE-SC3-RES (2)

Oblast	Typ akce	Uzávěrka	TRL	Dopor. přísp. EK na projekt/ celkem na téma
<b><u>Diverzifikace výchozí suroviny</u></b>				
RES 25 – International cooperation for Research and Innovation on advanced biofuels and alternative renewable fuels		2020		
RES 26 – Development of next generation biofuel and alternative renewable fuel technologies from CO2 and renewable energy (Power and Energy to Fuels)		2020		
RES 27 - Demonstration of advanced biofuels production from aquatic biomass		2020		
<b><u>Podpora uvádění na trh</u></b>				
RES 28 - Market Uptake support		2020		
RES 29 - Converting sunlight to storable chemical energy	<b>RIA</b>	<u>27/8/2019</u>	4 - 5	2 – 3 mil. € / 6 mil. €



## Inteligentní a čistá energie pro spotřebitele: LCE-SC3-EC

- Spotřebitelé jako aktivní hráči na trhu s energiemi
- Odstraňování regulace a tržních bariér
- Faktory vedoucí ke změnám ve spotřebitelském chování
- Energetická chudoba a jak jí čelit
- Oblast čisté energie, elektrické sítě a služby

Oblast	Typ akce	Uzávěrka	TRL	Doporučený příspěvek EK na projekt/ celkem na téma
EC 1 – The role of consumers in changing the market through informed decision and collective actions	CSA	<u>3/9/2019;</u> 2020		1 – 2 mil. € / 7.50 mil. €
EC 2 - Mitigating household energy poverty	CSA	<u>3/9/2019;</u> 2020		1 – 2 mil. € / 7.50 mil. €
EC 3 - Consumer engagement and demand response		2020		

## Inteligentní energetický systém v centru se spotřebitelem: LCE-SC3-ES

Oblast	Typ akce	Uzávěrka	TRL	Dopor. přísp. EK na projekt/ celkem na téma
<b><u>Trhy s elektřinou a spotřebitelé</u></b> (ES 7 pouze v roce 2018)				
ES 5 – TSO–DSO–Consumer: Large-scale demonstr. of innovative grid services through demand response, storage and small-scale (RES) generation	IA	2020		
<b><u>Dekarbonizace místních energetických systémů</u></b>				
ES 3 – Integrated local energy systems (Energy islands)	IA	2020		
ES 4 – Decarbonising energy systems of geographical Islands	IA	2020		

## Minimalizace CO<sub>2</sub> emisí z elektráren na fosilní paliva a z průmyslu s intenzivními emisemi uhlíku: LCE-SC3-NZE

Oblast	Typ akce	Uzávěrka	TRL	Doporučený příspěvek EK na projekt/ celkem na téma
NZE 4 - Integrated solutions for flexible operation of fossil fuel power plants through power-to-X-to-power and/or energy storage	IA	<u>27/8/2019</u>	to 6-7	6 – 10 mil. € / 20 mil. €
NZE 5 - Low carbon industrial production using CCUS	IA	<u>27/8/2019</u>	to 6-7	10 – 12 mil. € / 33 mil. €
NZE 6 – Geological Storage Pilots		2020		

## Společné akce: LCE-SC3-JA Spolupráce s Afrikou (JA 2 až 5)

Oblast	Typ akce	Uzávěrka	TRL	Doporučený příspěvek EK na projekt/ celkem na téma
JA 2 – Support to the realisation of the Implementation Plans of the SET Plan (2019: Renewable fuels and bioenergy)	<b>CSA</b>	<u>27/8/2019</u>		1 mil. € / 1 mil. €
JA 3 – European <u>Pre-Commercial Procurement</u> Programme for Wave Energy Research & Development	<b>PCP</b>	<u>27/8/2019</u>		15 – 20 mil. € / 20 mil. €
JA 5 - Joint Programming with EU and African partners for a R&I actions in the area of renewable energy	<b>COFUND (EJP)</b>	2020		

## Průřezové oblasti: LCE-SC3-CC

Oblast	Typ akce	Uzávěrka	TRL	Doporučený příspěvek EK na projekt/ celkem na téma
CC 1 – Social Sciences and Humanities ( <b>SSH</b> ) aspects of the Clean-Energy Transition	<b>RIA</b>	<u>27/8/2019;</u> 2020		1 – 3 mil. € / 10 mil. €
CC 3 – Support for the opening of low-carbon energy research databases in Europe	<b>CSA</b>	<u>27/8/2019</u>		0,5 – 1 mil. € / 2 mil. €

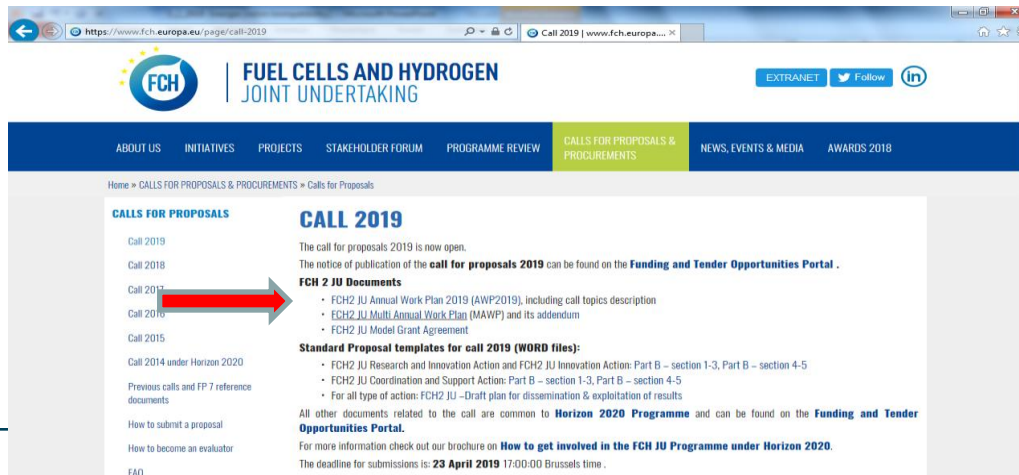
## Další výzvy z oblasti energií (uzávěrky již proběhly)

- WP 2018 – 2020 část 20. Cross-cutting activities: **Next generation batteries**; uzávěrka **25. 4. 2019**

[http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-cc-activities\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-cc-activities_en.pdf)

- Výzva Společného podniku pro palivové články a vodík **FCH JU**; uzávěrka **23. 4. 2019**

<https://www.fch.europa.eu/page/call-2019>



The screenshot shows the website for FCH JU (Fuel Cells and Hydrogen Joint Undertaking). The page is titled 'CALL 2019' and provides information about the call for proposals. A red arrow points to the 'CALL 2019' link in the left sidebar. The main content area includes the following text:

**CALL 2019**

The call for proposals 2019 is now open.  
The notice of publication of the **call for proposals 2019** can be found on the **Funding and Tender Opportunities Portal**.

**FCH 2 JU Documents**

- FCH2 JU Annual Work Plan 2019 (AWP2019), including call topics description
- FCH2 JU Multi Annual Work Plan (MAWP) and its addendum
- FCH2 JU Model Grant Agreement

**Standard Proposal templates for call 2019 (WORD files):**

- FCH2 JU Research and Innovation Action and FCH2 JU Innovation Action: Part B – section 1-3, Part B – section 4-5
- FCH2 JU Coordination and Support Action: Part B – section 1-3, Part B – section 4-5
- For all type of actions: FCH2 JU –Draft plan for dissemination & exploitation of results

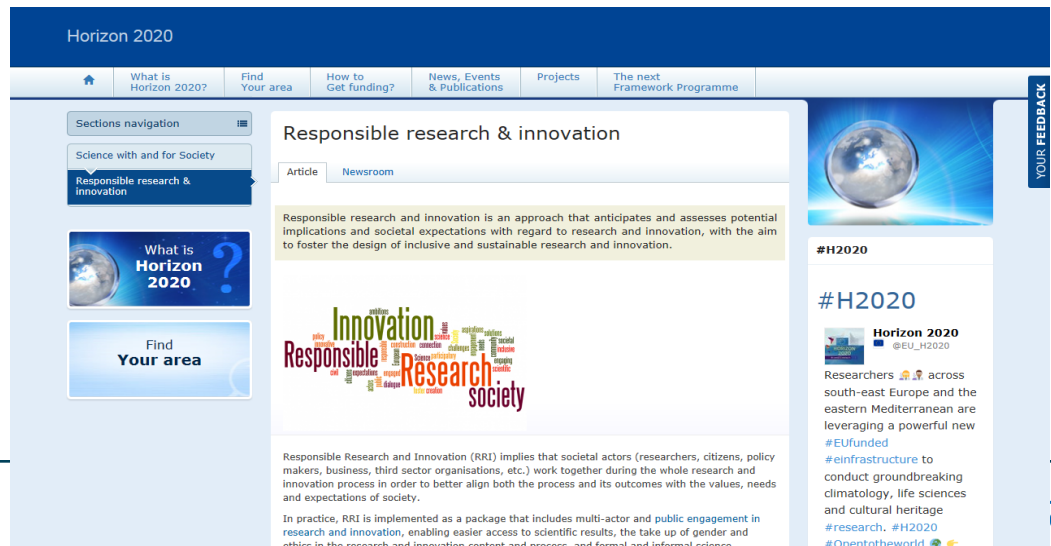
All other documents related to the call are common to **Horizon 2020 Programme** and can be found on the **Funding and Tender Opportunities Portal**.

For more information check out our brochure on **How to get involved in the FCH JU Programme under Horizon 2020**.  
The deadline for submissions is: **23 April 2019 17:00:00** Brussels time.

# Responsible Research and Innovation

<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation>

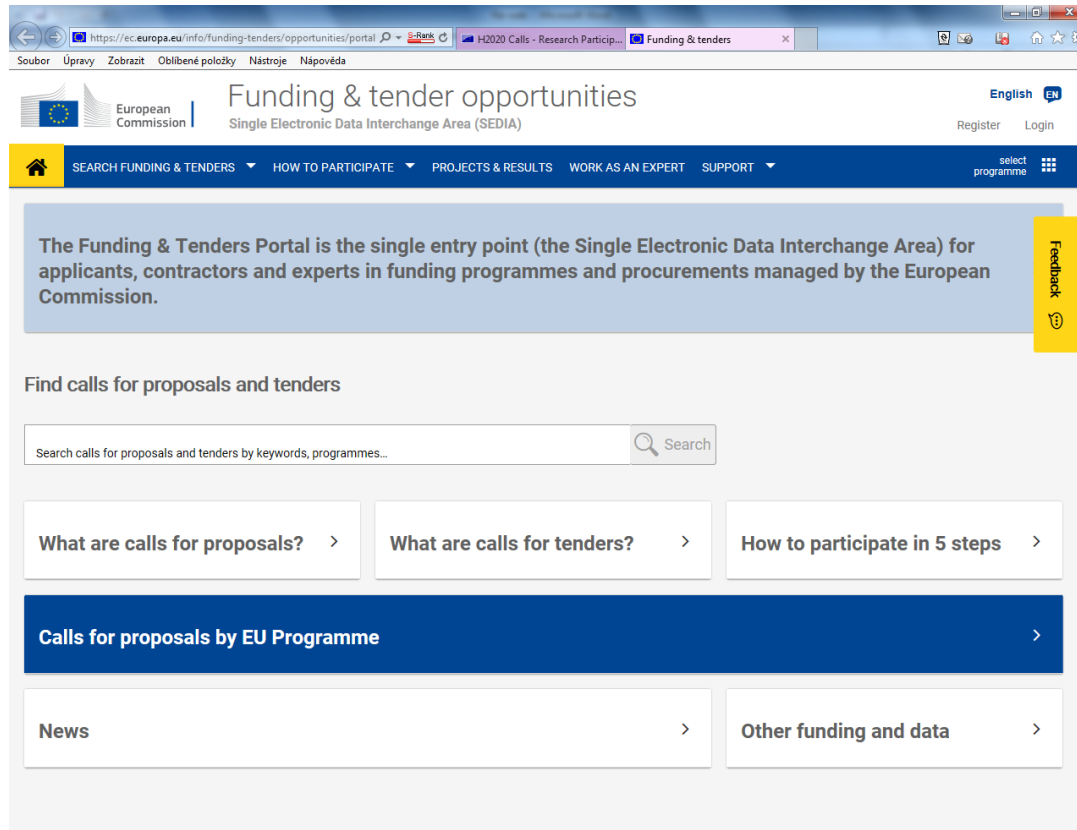
- Public Engagement
- Gender Equality
- Science Literacy and Science Education
- Open Access
- Ethics
- and the Governance thereof



The screenshot shows the Horizon 2020 website interface. At the top, there is a navigation bar with the title "Horizon 2020" and several menu items: "What is Horizon 2020?", "Find Your area", "How to Get funding?", "News, Events & Publications", "Projects", and "The next Framework Programme". Below the navigation bar, there is a "Sections navigation" menu with "Science with and for Society" and "Responsible research & innovation" selected. A "What is Horizon 2020?" button is visible, along with a "Find Your area" button. The main content area is titled "Responsible research & innovation" and includes an "Article" tab and a "Newsroom" tab. The article text states: "Responsible research and innovation is an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation." Below the text is a word cloud featuring terms like "Innovation", "Responsible", "Research", and "society". A sidebar on the right contains a "YOUR FEEDBACK" button, a globe image, and social media links for "#H2020" and "#EUfunded".

# Nově: Funding and Tenders Portal

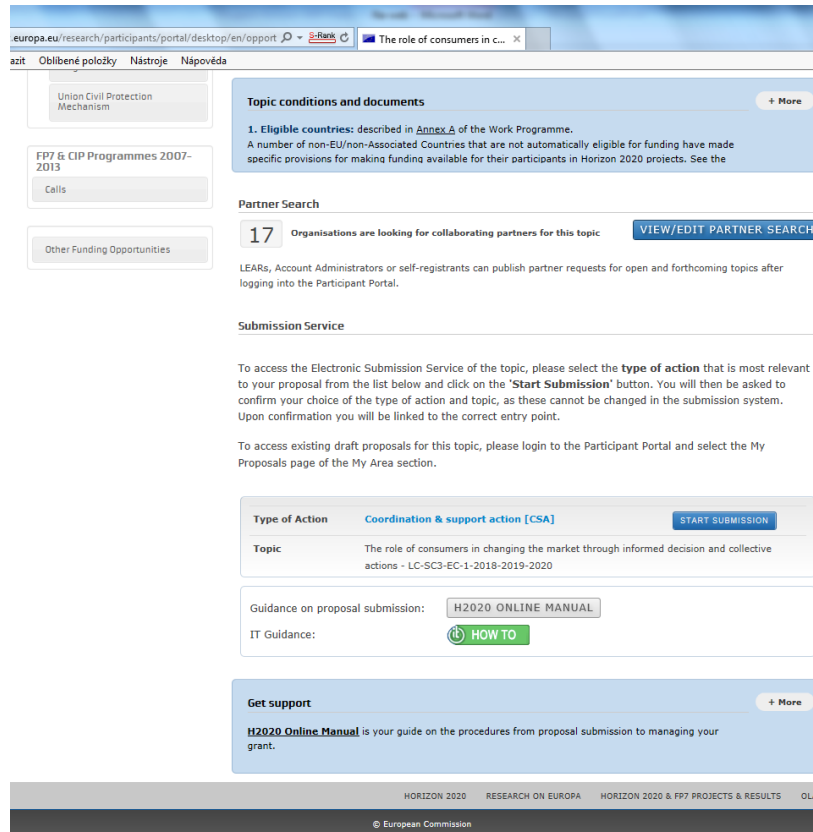
<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>



The screenshot shows the homepage of the Funding & Tenders Portal. The browser address bar displays the URL <https://ec.europa.eu/info/funding-tenders/opportunities/portal>. The page header includes the European Commission logo, the text "Funding & tender opportunities", and "Single Electronic Data Interchange Area (SEDIA)". A navigation menu contains links for "SEARCH FUNDING & TENDERS", "HOW TO PARTICIPATE", "PROJECTS & RESULTS", "WORK AS AN EXPERT", and "SUPPORT". A main banner states: "The Funding & Tenders Portal is the single entry point (the Single Electronic Data Interchange Area) for applicants, contractors and experts in funding programmes and procurements managed by the European Commission." Below this is a search bar with the placeholder text "Search calls for proposals and tenders by keywords, programmes..." and a "Search" button. A row of three buttons offers: "What are calls for proposals?", "What are calls for tenders?", and "How to participate in 5 steps". A prominent blue button reads "Calls for proposals by EU Programme". At the bottom, there are buttons for "News" and "Other funding and data". A "Feedback" button is visible on the right side of the page.



# Možnost hledání partnerů do projektu prostřednictvím F + T portálu (view/edit partner search)



The screenshot shows the 'Partner Search' section of the F+T portal. The page title is 'The role of consumers in c...'. The main content area includes a 'Partner Search' section with a 'VIEW/EDIT PARTNER SEARCH' button. A red arrow points to this button. Below the button, there is a 'Submission Service' section with instructions on how to access the Electronic Submission Service and existing draft proposals. The page footer contains the text '© European Commission'.

europa.eu/research/participants/portal/desktop/en/opport... The role of consumers in c... x

azit Obilbené položky Nástroje nápověda

Union Civil Protection Mechanism

FP7 & CIP Programmes 2007-2013  
Calls

Other Funding Opportunities

**Topic conditions and documents** + More

1. **Eligible countries:** described in Annex A of the Work Programme.  
A number of non-EU/non-Associated Countries that are not automatically eligible for funding have made specific provisions for making funding available for their participants in Horizon 2020 projects. See the

**Partner Search**

17 Organisations are looking for collaborating partners for this topic **VIEW/EDIT PARTNER SEARCH**

LEARs, Account Administrators or self-registrants can publish partner requests for open and forthcoming topics after logging into the Participant Portal.

**Submission Service**

To access the Electronic Submission Service of the topic, please select the **type of action** that is most relevant to your proposal from the list below and click on the **'Start Submission'** button. You will then be asked to confirm your choice of the type of action and topic, as these cannot be changed in the submission system. Upon confirmation you will be linked to the correct entry point.

To access existing draft proposals for this topic, please login to the Participant Portal and select the My Proposals page of the My Area section.

**Type of Action** **Coordination & support action [CSA]** **START SUBMISSION**

**Topic** The role of consumers in changing the market through informed decision and collective actions - LC-SC3-EC-1-2018-2019-2020

Guidance on proposal submission: **H2020 ONLINE MANUAL**

IT Guidance: **HOW TO**

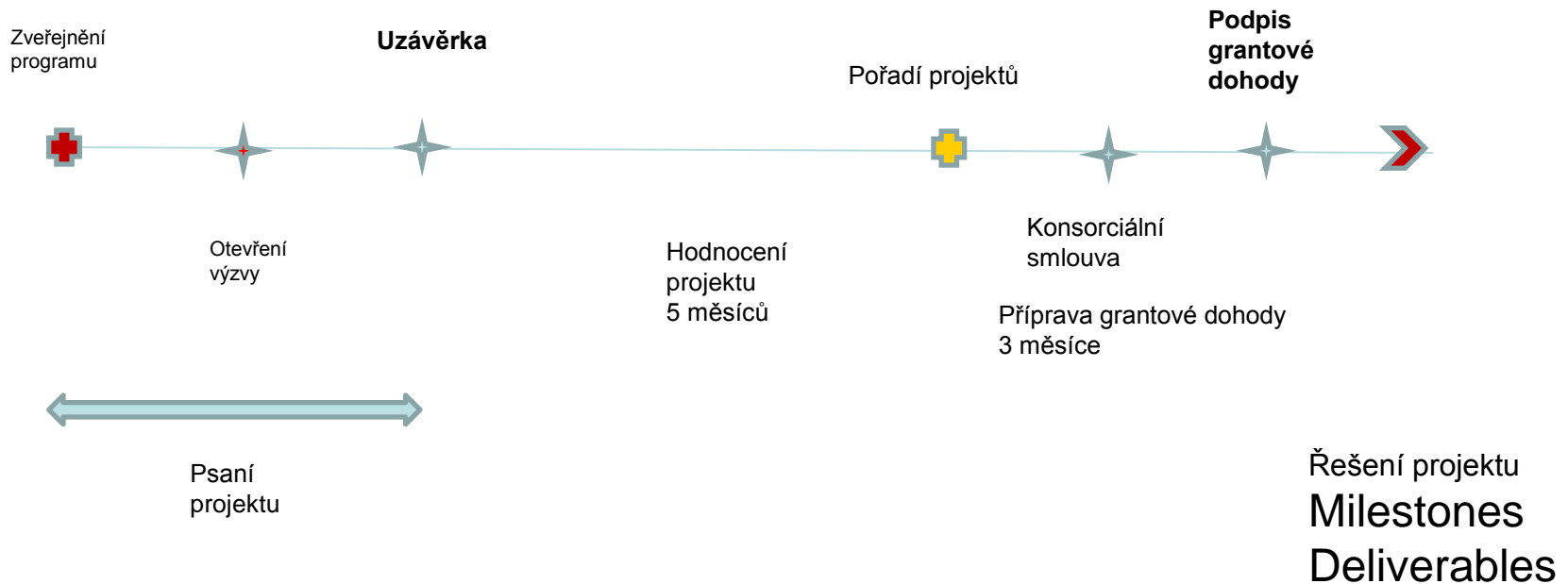
**Get support** + More

**H2020 Online Manual** is your guide on the procedures from proposal submission to managing your grant.

HORIZON 2020 RESEARCH ON EUROPA HORIZON 2020 & FP7 PROJECTS & RESULTS OLAF

© European Commission

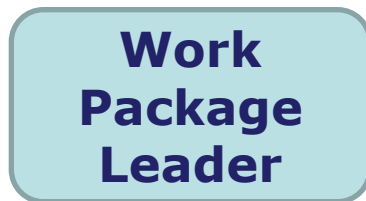
# Životní cyklus projektu



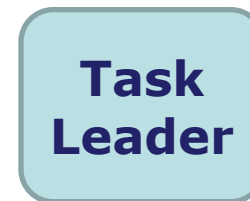
- **Koordinátor projektu** – manažerské schopnosti, předchozí zkušenosti
- H2020 COORDINATORS' DAY – pořádá Evropská komise pro koordinátory financovaných projektů, záznam dostupný na webu
- Evropský rozměr projektu – většinou minimálně tři účastníci ze zemí EU nebo ze zemí asociovaných k programu Horizont 2020; může být více účastníků z jedné země (kompatibilita)
- Utvoření konsorcia s přihlédnutím k typu projektu (RIA, IA, CSA ...)

## Činnosti v projektu

- Rozdělení činností v projektu na pracovní balíčky (WORK PACKAGES)
- Ty jsou dále rozděleny na dílčí úkoly (TASKS)
- Aktivity musí promyšleně navazovat



Odborné znalosti  
Manažerské schopnosti



Odborné znalosti

## Hodnocení projektu: Pravidla hodnocení - část H v General Annexes

### 1. Kritéria pro udělení:

- Excellence (vynikající vědecká úroveň)
- Dopad
- Implementace

Požadavky pro všechny typy projektů + doplňující požadavky pro jednotlivé typy projektů (RIA, IA, CSA, ERA-NET Cofund, PCP, PPI, ...)

### 2. Bodové hodnocení:

Minimální počet bodů pro jednotlivé kritérium a minimum pro součet

Vážení kritérií (např. 1,5 pro impakt u inovačních akcí)

### 3. Doplňující kritéria pro návrhy se stejným skóre

## Technology Readiness Levels (= od nápadu k realizaci)

### Jde o základní výzkum nebo aplikovaný výzkum?

- TRL 1 – basic principles observed
  - TRL 2 – technology concept formulated
  - TRL 3 – experimental proof of concept
  - TRL 4 – technology validated in lab
  - TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
  - **TRL 6** – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
  - TRL 7 – system prototype demonstration in operational environment
  - TRL 8 – system complete and qualified
  - TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)
-

# Specializovaný nástroj Partner Search ENERGY + EURATOM

<http://www.partnersearch.c-energy2020.eu/>

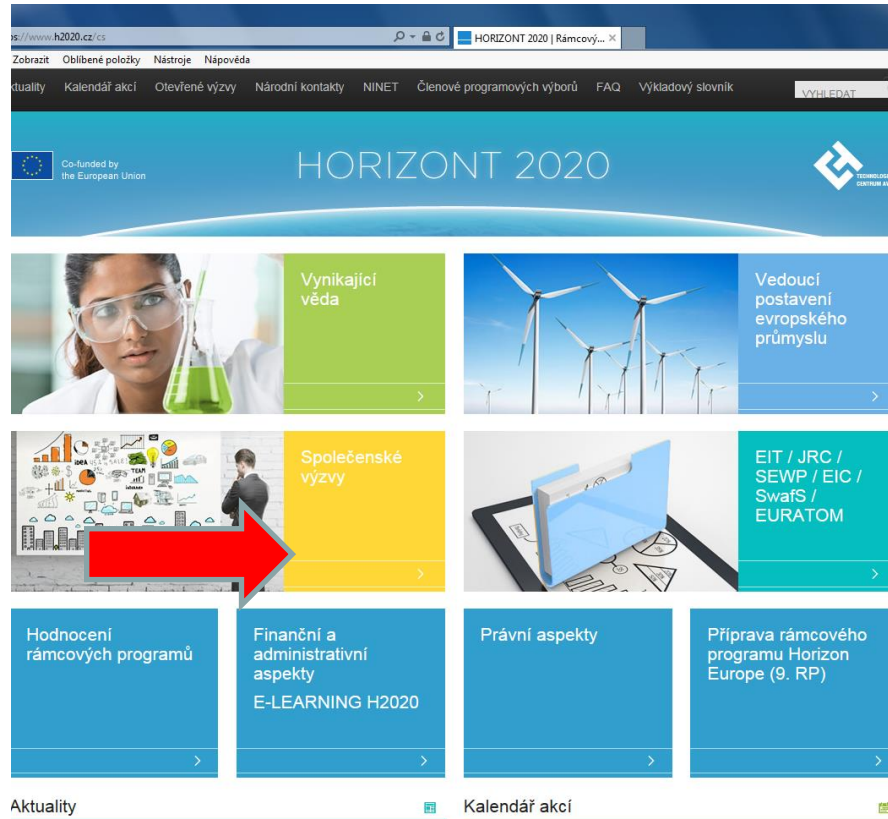


The screenshot shows the homepage of the C-Energy2020 Partner Search tool. At the top left is the logo for C-Energy2020, which includes icons for a gear, a water drop, and a person. To the right of the logo are social media icons for Twitter, Facebook, and Email. Below the logo is a navigation menu with links for HOME, ABOUT, GET NEWSLETTER, INTRANET, and CONTACTS. A prominent yellow banner contains seven circular icons representing different features: Find your NCP, EU funding, Partner Search, EU networks, News & EU Policy, Calendar, and Media. Below the banner is a dark blue header for the 'partner search' section, with a breadcrumb trail 'Home Page / partner search'. The main content area is divided into two columns. The left column contains a 'Login' section with input fields for 'Username (E-Mail address)' and 'Password', and a 'LOGIN' button. Below this are links for 'Registration', 'Password lost?', and 'Navigation'. The right column features a heading 'HORIZON 2020 - WORK PROGRAMMES - Part 10. Secure, clean and efficient energy & Euratom' followed by a sub-heading 'Dedicated Partner Search tool'. The text describes the facility's purpose and provides links to download workprogrammes for 2016-2017. At the bottom of the right column, there is a section titled 'Entry options.' with a brief description and a bullet point for 'Partner Offer'.

- Hledání partnerů pro projekty
- Je třeba validace od NCP

# Služby Technologického centra AV ČR

<https://www.h2020.cz/cs>



The screenshot shows the website [www.h2020.cz/cs](https://www.h2020.cz/cs) with the following elements:

- Navigation:** Top menu includes 'Aktuality', 'Kalendář akcí', 'Otevřené výzvy', 'Národní kontakty', 'NINET', 'Členové programových výborů', 'FAQ', and 'Výkladový slovník'. A search bar labeled 'VYHLEDAT' is on the right.
- Header:** 'Co-funded by the European Union' logo and 'HORIZONT 2020' title with the Technology Centre CAS logo.
- Content Grid:**
  - Vynikající věda:** Accompanied by an image of a scientist in a lab.
  - Vedoucí postavení evropského průmyslu:** Accompanied by an image of wind turbines.
  - Společenské výzvy:** Accompanied by an image of a person at a whiteboard. A large red arrow points to this tile.
  - EIT / JRC / SEWP / EIC / Swafs / EURATOM:** Accompanied by an image of a folder on a tablet.
  - Hodnocení rámcových programů:** Bottom left tile.
  - Finanční a administrativní aspekty E-LEARNING H2020:** Bottom middle-left tile.
  - Právní aspekty:** Bottom middle-right tile.
  - Příprava rámcového programu Horizon Europe (9. RP):** Bottom right tile.
- Footer:** 'Aktuality' and 'Kalendář akcí' with calendar icons.



## Zdroje informací

- **CORDIS:** <https://cordis.europa.eu/search/en>
- **TC:** <http://www.tc.cz/>  
<http://www.h2020.cz/>
- **CZELO:** [www.czelo.cz](http://www.czelo.cz)
- **Funding and tender portal:**  
<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>
- **Výzkum v EU:**  
[ec.europa.eu/research](http://ec.europa.eu/research)

**Děkuji Vám za pozornost.**