





EU Framework Programme for Research and Innovation HORIZON 2020

Information Day
16 February 2017
Tbilisi

Outline

General Information about the program

Open Calls/topics in Societal Challenge "Secure, Clean and Efficient Energy"

Practical information. How to participate, partner search, general indications and advice

HORIZON 2020

General information about the programme

What is Horizon 2020?

- Horizon 2020 is the biggest EU Research and Innovation programme ever with €80 billion of funding available over 7 years (2014 to 2020)
- It promises more breakthroughs by taking great ideas from the lab to the market
- open to everyone

Target:

- tackle Societal Challanges (SCs) by helping to bridge the gap between research and the market.
- remove barriers of innovation
- make it easier for the public and private sectors to work together in delivering innovation

What is Work Programme?

- Funding opportunities under Horizon 2020 are devided in multiannual Work Programmes (WP), which are prepared by the European Commission
- The current main H2020 WP (2016-2017) have 18 thematic sections. All WPs are available here
- ► Each thematic section describes the general objectives and the topics
- ▶ WP on Secure, Clean and efficient energy is available <u>here</u>
- WP that includes smart and sustainable cities is available here (pg. 105)

Horizon 2020 structure

HORIZON 2020

Excellent Science

ERC - European Research Council

FET - Future and Emerging Technologies

Marie Sklodowska-Curie Actions

Research Infrastricures

Industrial Leadership

Leadership in Enabling and Industrial Technologies (LEIT)

Innovation in SMEs

Access to risk finance

Societal Challenges

Health, Demographic change and Wellbeing

Food Security, Agriculture&Forestry, Marine, Maritime&Water&Bioeconomy

Secure, clean and efficient energy

Smart, green and integrated transport

Climate action, Environment, Resource efficiency and Raw materials

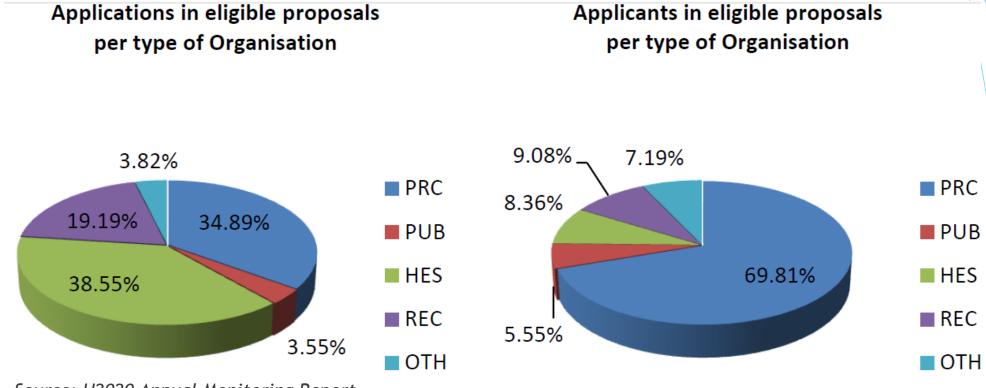
Europe in a changing world: inclusive, innovative and reflective societies

Secure societies - Protecting freedom and security of Europe and its citizens

Illusions and False Expectations on Horizon 2020 projects

- Easily obtainable funding source.
- Funding for unrelated expenses.
- * Having an original research idea and being in a leader position is enough.
- My proposal may be successful without real European content or without link with European policies.
- My proposal may be successful without meeting all the eligibility and evaluation criteria.
- Having the right number and geographical origins of partners in my consortium is enough.
- I just have to convince the EC project officers for my proposal to be successful.

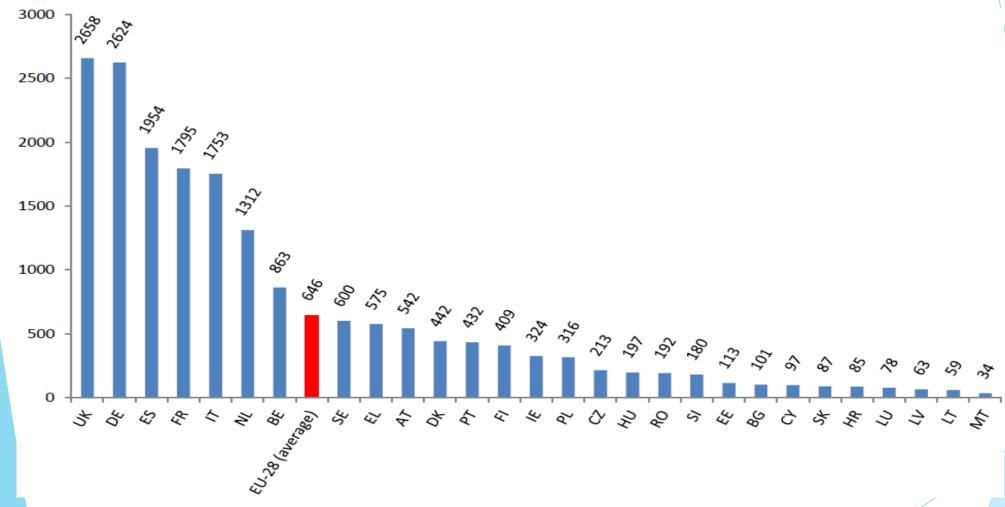
Applications and applicants in eligible proposals



Source: H2020 Annual Monitoring Report

- Almost three quarters of the 36 139 unique applicants are listed as private for profit organizations (PRC) (1.69 applications per unique PRC appliquant on average)
- > HES organizations include only 3 021 unique applicants: on average, every unique HES applicant has submitted 15.7 applications

EU Member States Participation in Grants



Source: H2020 Annual Monitoring Report

Opportunities for Georgia

29 April 2016 Georgia joined Horizon 2020

Funding for excellent science

To gain **visibility** at EU level, **experience** in EU instruments and policies

World class research infrastructures

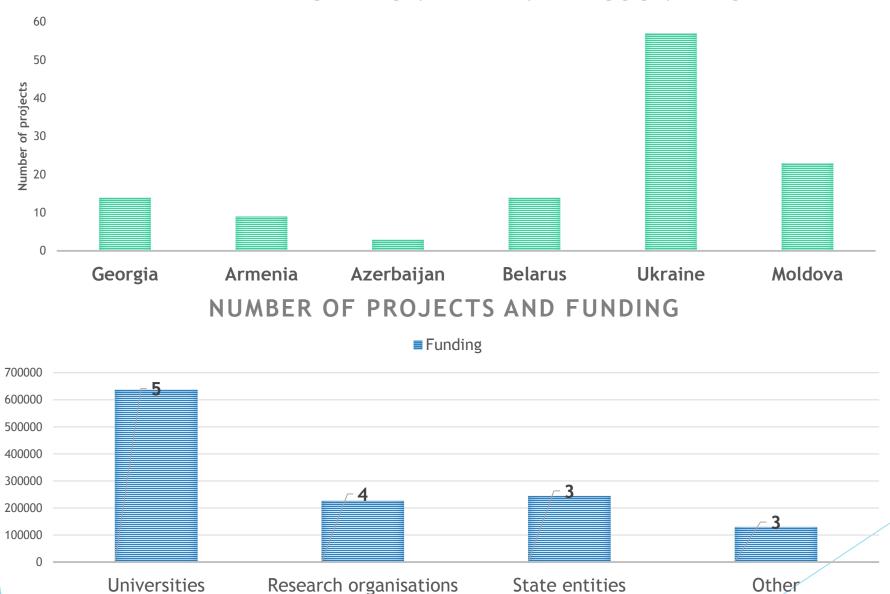
Access to new network and alliances

Collaborate with the best European universities

Collaborate with European research team

Horizon 2020 projects in Georgia

H2020 PARTICIPATION RATE IN EAP COUNTRIES



Main Distinction from National/Donor Projects

- Partnership. Vast majority of H2020 call are collaborative requiring building a consortium
- Duration. Majority of H2020 projects are long-term
- Indirect costs. In H2020 there are fixed overhead costs (25%)
- Travel costs. Travel and cooperation with EU partners is encouraged and sometimes obligatory in H2020 projects
- Eligibility. H2020 is open for all
- Funding rate
- Content. Projects funded within H2020 should be with EU content and link to EU Policies
- Submission period. H2020 calls have long submission period, usually 6 month. Information on forthcoming calls are available once WP is developed.

Key Terminology

- MS- EU Member State
- AC- Associated Country, a country that signed Association Agreement with H2020
- Third Country- a country that is neither AS not MS
- CSA- coordination and support actions
- RIA -research and innovation actions
- IA- innovation actions
- Two stage call- such call has 2 deadlines. At first stage an applicant is required to submit a concept. Only shortlisted candidate are contacted and asked to submit full proposal at second stage
- B2B- Brokerage event
- NCP-National Contact Point

Horizon 2020

Open and Forthcoming calls/topics

Technology readiness levels (TRL)

- 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)
- Annex G:

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

Standard Eligibility Criteria

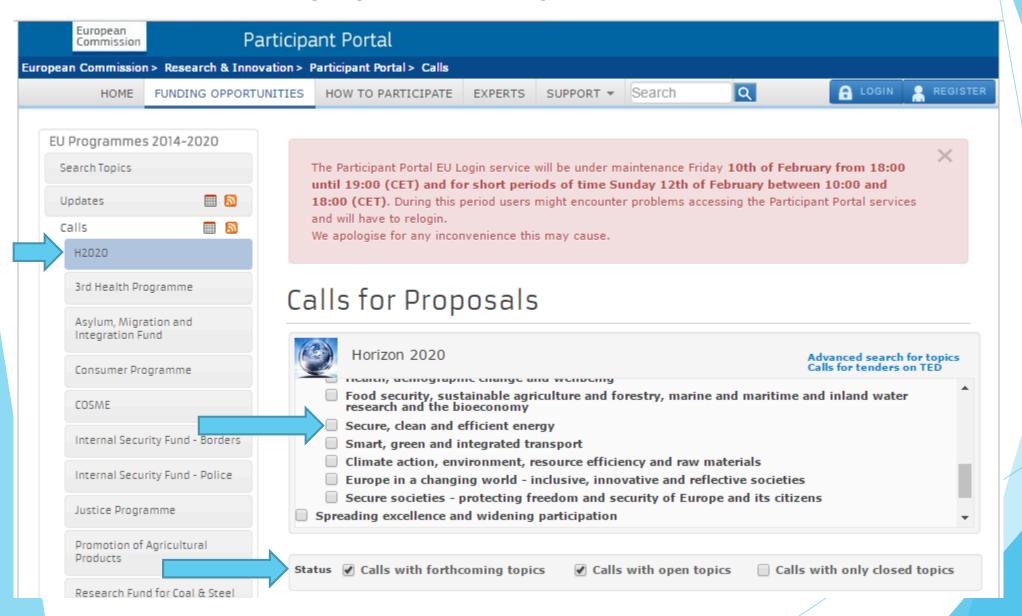
Type of Actions	Eligibility conditions	Funding Rate	Typical Duration	Average EC Contribution	Aim
Research & innovation action	≥ 3 legal entities from 3 MS/AC	100%	Up to 4 years	€2.0 -5.0M	collaborative research Projects Up to TRL 5
Innovation action	≥ 3 legal entities from 3 MS/AC	 100% (Research organisation/universit y/ public entity - non profit organization) 70% (Enterprise/SME/private sector in general) 	4-5 years	€2.0 -5.0M	produce plans & arrangements or designs for new, altered or improved products, processes or services TRL 6-7
Coordination & support action	(at least) 1 legal entity	100%	1-3 years	€ 0.5-2.0M	accompanying measures (standardisation, dissemination, policy dialogues etc.) no research
SME instrument	1 SME in MS/AC	3 phases: Phase 1: lump sum of €50K /project Phase 2: €1-2.5M / project (1-2 years) (70% of eligible costs reimbursed) Phase 3: no funding			combination of demonstration activities (testing, prototyping, etc.), market replication

Ongoing Calls

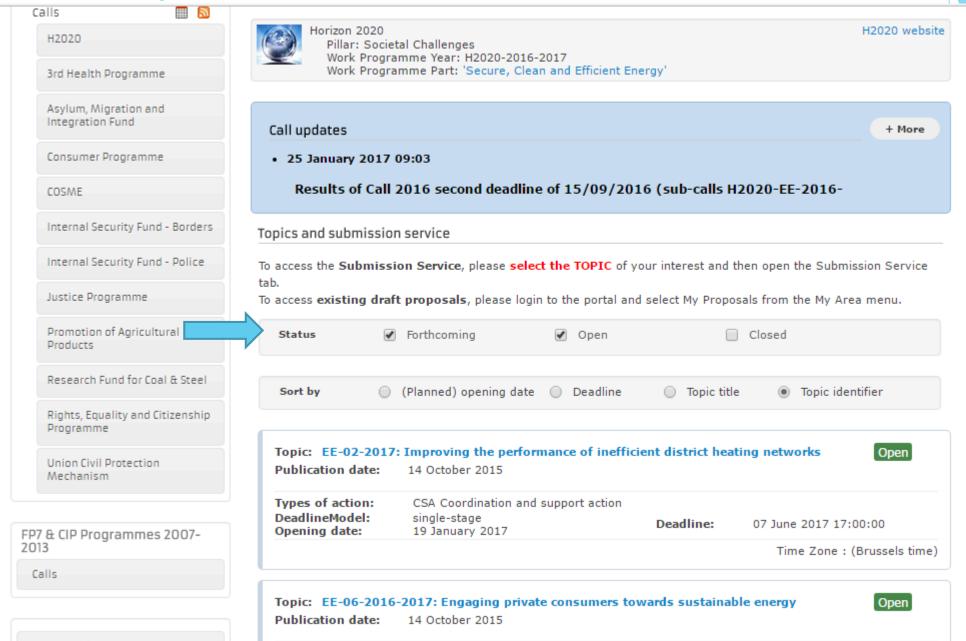
- FCH2 JU (Fuel Cells and Hydrogen)- 24 topics
- Energy Efficiency Call 12 topics (CSA only)
- Competitive Low Carbon Energy- 3 open topics, 9 forthcoming
- ► SME instrument 2016-2017- 26 topics
- Smart and Sustainable Cities 1 topic

Participant Portal

Information on ongoing and forthcoming calls is available here

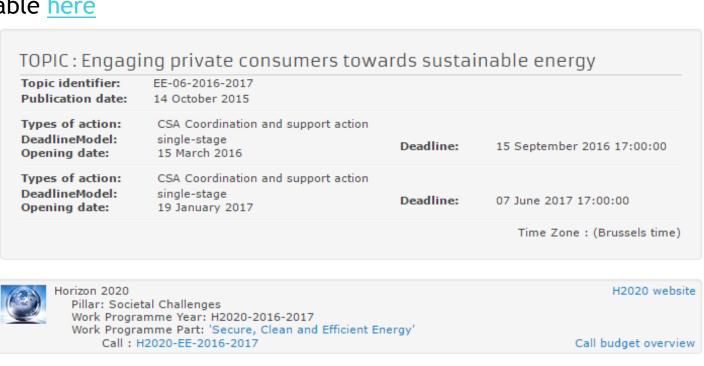


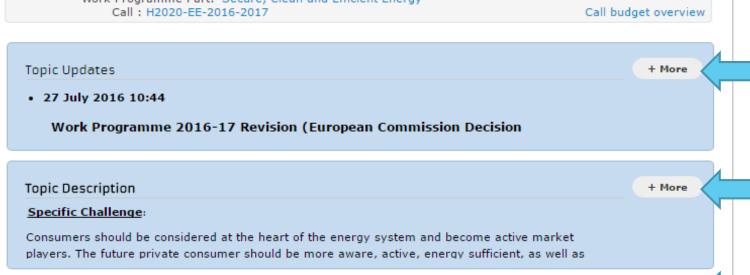
Participant Portal



Tonic conditions and documents

Available here





+ More

Topic: Engaging private consumers towards sustainable energy (€ 1-2 mln) Deadline: 7 June 2017

Scope:

- Empower and facilitate actions for consumers to become prosumers
- Support clearly defined groups of vulnerable consumers in tackling fuel poverty by facilitating more sustainable energy behavior and choices
- ► Facilitate wider deployment and consumer adoption of existing ICT-based solutions with a focus on action and resulting in improved understanding of ICT interfaces and information depiction (including smart metering and related systems).
- ▶ Facilitate consumer understanding of energy bills, leading to reduction in energy consumption.
- Create better instruments for improving consumer understanding and routing purchase decisions towards higher efficiency products

Impact:

- Primary energy savings triggered by the project within its duration (in GWh/year per million Euro of EU funding);
- Number of people changing their behaviour and taking informed decisions
- Policies and strategies created/adapted to include fuel poverty (for actions on fuel poverty), to be measured in number of citations / statements from governance bodies

- Topic: Overcoming market barriers and promoting deep renovation of buildings (€ 1-2 mln) CSA Deadline: 7 June 2017
 - ▶ The focus should on overcoming market barriers to deep renovation within the value chain. Any building type may be included (public or private, residential or non-residential).
 - Renovations should strive to achieve "deep renovation" (at least 60% energy savings compared to pre-renovation levels) or aim towards Nearly Zero Energy Buildings (NZEB) performance. Proposals might consider integration of voluntary certification schemes along with energy performance certificate, including elements of indoor quality classification for buildings.
- Topic: Engaging and activating public authorities (€ 1-2 mln) CSA

Deadline: 7 June 2017

- A) Actions aiming at engaging public authorities. Proposals demonstrating an innovative approach in empowering public authorities to step up their active role to develop, finance and implement ambitious sustainable energy plans and measures (synergies with the Covenant of Mayors or similar public initiatives)
- ▶ B) Peer to peer learning for public authorities step up public authorities' capacity to help deliver the energy transition. Facilitating organisation consortia will involve the Local and Regional Energy Agencies and other relevant actors (capacity building, exchange)

Making the energy efficiency market investible (€ 1-1.5 mln) CSA

Deadline 7 June 2017

Proposals should address one or more of the following issues:

- Development, demonstration and promotion of frameworks for the standardisation and benchmarking of energy efficiency investments (labelling schemes, project rating methodologies and risk assessment tools, standardised legal and financial structures of assets) in order to develop rating models for energy efficiency based financial products, which should enable the development of and access to secondary markets.
- ► Gathering, processing and disclosing large-scale data on actual financial performance of energy efficiency investments, in order to create a track record for energy efficiency in different sectors (buildings, industry, transport, etc)
- Targeting institutional investors in order to increase the share of their funds invested in energy efficiency, or to develop specific funds or investment products.

Competitive Low Carbon Energy

Topic: Enhanced geothermal system in different geological conditions (€ 6-10 mln) IA Opens: 11 May 2017 Deadline September 2017

- Proposals should aim at testing EGS systems to ensure reservoir productivity in different geological settings and energy production at competitive costs.
- ► TRL 7 shall be achieved at the end of project activities
- Opening the project's test sites, pilot and demonstration facilities, or research infrastructures for practice oriented education, training or knowledge exchange is encouraged.

Topic: Near-to-market solutions for the use of solar heat in industrial processes (€ 6-10 mln) IA Opens: 11 May 2017 Deadline September 2017

- Proposals shall demonstrate less complex and cost effective technical solutions which significantly increase the share of solar heat in industrial processes and which can be easily integrated into existing industrial plants.
- TRL 7 shall be achieved at the end of project activities
- Opening the project's test sites, pilot and demonstration facilities, or research infrastructures for practice oriented education, training or knowledge exchange is encouraged.

Dedicated SME Instrument

- ► Topic: <u>Stimulating the innovation potential of SMEs for sustainable and competitive agriculture</u>, forestry, agri-food and bio-based sectors
 - Deadlines for Phase I: 3 May, 6 September, 8 November 2017
 - In phase 1, (lump sum €50 000) a feasibility study shall be developed in order to verify the technological/practical as well as economic viability of an innovation idea/concept
 - In phase 2, (€ 0.5-2.5 mln)innovation projects will be supported that address the specific challenges identified and that demonstrate high potential in terms of company competitiveness and growth underpinned by a strategic business plan.
- ► Topic: Boosting the potential of small businesses in the areas of climate action, environment, resource efficiency and raw materials
 - Deadlines for Phase I: 3 May, 6 September, 8 November 2017
- ► Topic: <u>Stimulating the innovation potential of SMEs for a low carbon and efficient energy system</u>
 - ▶ Deadlines for Phase I: 3 May, 6 September, 8 November 2017

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How to participate

Registration and PIC number

- ► Check whether your organization is already registered <u>here</u>
- ▶ Register <u>here</u> to get EU login and 9 digit PIC number
- Register at Cordis to get access to partner search. Register here
- Register at C-Energy 2020 portal to get access to partner search. Register here
- When your proposal is successful and you are invited to the grant preparation the legal representative of the organization must appoint a LEAR (Legal Entity Appointed Representative). LEAR is a person, usually an administrative staff member in the central administration, appointed by the legal representative of the organization. More detailed information and guideline is available here

Partner vs. Coordinator

Coordinator

Find a call Find partners Build a consortium Write and submit a proposal

Partner



Being a Coordinator

- The coordinator is the project's « driver », from the project idea to the final reporting
 - Coordination between all partners
 - Reference point and unique contact vis-à-vis the EC (Project Officer)
 - Preparation of the grant agreement and financial/technical reports with the EC
 - **Responsible for the project**
- Evaluators focus closely on
 - The coordinator's experience of multi-partners projects
 - His/her profile (CV)
 - Financial stability of the organization
 - A credible management plan for the consortium

Building a Consortium

The right partners:

Ideally, a good partner

- ✓ Is active and proactive
- Contributes substantially to the project
- ✓ Is experienced in project implementation
- ✓ Is involved in the project preparation
- ✓ Has technical and linguistic competences
- ✓ Has an established network
- ✓ Would cooperate beyond the project's duration
- ✓ Is committed and motivated by more than the funding!

Each partner has a **specific role** and brings a real **added value** to the project **and** the realization of its objectives.

Building a Consortium

- Active cooperation of all partners
- ✓ Balanced share of roles and funds
- Sufficient number of experienced partners
- ✓ Shared risks
- Clear and democratic rules for decision making, defined beforehand (e.g. IPR clarified in the consortium agreement)
- Participation of SMEs (may be mandatory for eligibility)
- ✓ Geographical balance (incl. new MS and AC/Third countries)
- ✓ Gender balance

Writing a Proposal

- Appoint the person in charge of the writing (coordination, gathering and harmonization of the partners' contributions)
- Draft a short and precise summary as basis for discussion, including
 - Call and topic addressed
 - Type of action (usually imposed by the call)
 - Main objective
 - Preliminary division in work packages
 - Main deliverables
 - Main responsabilities of each partner
 - Explicit title reflecting the content of the proposal
 - Acronym easily memorisable

Writing a Proposal

- Follow the provided **template** (structured to correspond to the 3 evaluation criteria (excellence; impact; and quality and efficiency of the implementation)
- Remain within the imposed length limitations (exceeding the limits may be a case for ineligibility)
- Be clear, concise and explicit (make the evaluators' task easy and keep in mind that they will not read between the lines)
- Write in English
- Fill in all the fields in the administrative documents
- Answer all the questions in the technical part

Partner Search

- ► Talk to your partners and their friends
- Use your academic and personal contacts
- ► Talk to your colleagues and their friends
- Check/use partner search tools
- Partner offers distributed by NCP
- Use thematic groups_in social media
- Participate in Brokerage event
- Participate in International workshops, conferences
- But remember You have to be visible!!

Partner Search Tools

Cordis -Community Research and Development Information Service

- Proposing a project- researchers or consortia with definite idea for a project who are looking for additional partners
- Offering collaboration- researchers offering their research expertise and research interest who are willing to participate in possible project



Research Partners

You can:

- Search for partners
- · Query more with an advanced search
- Browse these active profiles and collaboration requests to build your network:

Search



- 7150 Partner profiles
- · 44 Open Calls for Proposals
- 5644 Partnership requests



- 1400 Proposing project
- 4244 Offering collaboration
- 395 Groups

Create or update your profile				
Username: NataliaWEG				
Password:				
Forgot your username or password? Not yet registered?				
Log in				

Partner Search Tools

- C-Energy 2020- Energy National Contact Points Network
- **Partner Offer** Researchers can offer their research expertise and who would like to collaborate in possible project consortia. Up to 3 open topics can be listed. A partner expertise profile is required.
- **Partner Search** Researchers or consortia with a definite idea for a project who are looking for further partners to complement the expertise scope of the consortium.

User

Edit Profile **Edit Entries** Edit Brokerage events Edit E-Mail-Alerts / RSS Feeds Logout Navigation

Partner Search Home Search for Partner Entries Search for Partner Profiles

Partner offer (competences/expertise)

The experience of AF Aries in solar energy is extensive and includes about 4 GW of engineering and consulting services in Solar Thermal and PV.

The team included in AF Aries has experience in the coordination and development in R&D projects including several EU projects under 7thFP.

The capacities and collaboration offer includes:

- Design of solar components and systems
- Work in the chain design since concept to preindustrial development
- Basic and detail engineering
- Project Coordination
- Testing of components and preindustrial devices

Topics LCE-10-2017

Reducing the cost of PV electricity

LCE-11-2017.:

International workshops, seminars, conferences

- Event calendar at C-Energy 2020 is available <u>here</u>
- Event calendar H2020 is available here
- Information disseminated through mailing list
- List of events at Cordis is available here
- Travel grants offered by Shota Rustaveli National Science Foundation (<u>www.rustaveli.org.ge</u>)
- ► EC Funded workshop "<u>Materials resistant to extreme conditions for future energy systems</u>" will take place on 12-14 June 2017 in Kiev
- Participants from Georgia can apply for a **Grant** to cover the travel and accommodation costs. Any person working in a target country or citizen of a target country is eligible

Sessions:

- High temperature assessment of components and materials
- Structural materials development for energy applications
- Long-term Plant operation
- Assessment of environmental impact
- other

Brokerage Event (B2B)

The **Brokerage Event** is a B2B matchmaking where 25-minute bilateral meetings are scheduled according to each participant availability, interests and goals to find international business and technology partners.



Tips

- Register in advance
- Describe your organization and research interests
- Fill cooperation profiles indicating relevant expertise and Calls you are interested in
- Check new profiles regularly
- Book meeting with the most relevant participants
- Bring your business cards and relevant publications (organizational profile, brochures, etc.)

B2B events

- E² Tech4Cities Brokerage Event 2017 -during the EU Sustainable Energy Week
- For whom:
 - Private companies (including Start-ups SMEs and large companies),
 - Public authorities and municipalities
 - Industry associations
 - Universities and research centers
 - Investors

Focus:

- Renewable energies; Energy-efficient Buildings and districts
- ICT for cities, Smart cities and communities. Energy efficient mobility and transport
- Energy management; Energy recovery; Smart grids and energy systems integration

Innovation4EnergyEfficincy, 16 May 2017, Ukraine

Register as an expert

- Registration is available at Participant Portal <u>here</u>
- Experts, as peer reviewers, assist in the:
 - evaluation of proposals
 - monitoring of actions
- You have a chance of being selected as an expert if you:
 - ► have high-level of expertise in the relevant fields of research and innovation (see call for details on types of expertise).
 - can be available for occasional, short-term assignments



Get involved!

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Clean, Secure and Efficient Energy
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