HORIZON 2020 HANDBOOK FOR UKRAINIAN RESEARCHERS

ENHANCING THE BILATERAL S&T PARTNERSHIP WITH UKRAINE * ADVANCED INNOVATIVE APPROACH

This report also acts as a formal deliverable of the BILAT-UKR*AINA project, namely D4.9 "Handbook for Ukrainian researchers on available funding programmes under the new financial period 2014-2020".

BILAT-UKR*AINA supports the institutional S&T Policy Dialogue between the European Commission, the EU Member States and Ukraine by providing analytical input and operational tailor-made support to the Joint S&T Cooperation Committee and ensuring practical follow-up and by monitoring and analysing the S&T cooperation between Ukraine and EU. Furthermore, BILAT-UKR*AINA enhances Ukrainian participation in Horizon 2020 in cooperation with National Contact Points (NCPs) by transferring best practice concepts and know-how on funding programmes, technology transfer, innovation support measures, providing in-house trainings for researchers, organising webinars, networking and thematic workshops and Horizon 2020 promotion events. Building synergies between existing programmes, facilitating the implementation of the joint EU-Ukraine STI Roadmap through pilot activities and reaching relevant policy-level institutions, funding bodies, NCPs, researchers, research managers/institutions, research-oriented SMEs and industry, other relevant EU projects and the public at large are additional core aims of BILAT-UKR*AINA.

*For more information about BILAT-UKR*AINA activities please refer to* http://www.bilat-ukraina.eu/

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1. RATIONALE

The Framework Programme for Research and Technological Development 7 (FP7) was recognised as an important instrument for the cooperation and actively promoted in Ukraine. In FP7 Ukraine is in the top ten of the most active (non-associated) third country participating in the programme. Ukrainian research organisations have been involved in 711 FP7 proposals covering essentially all parts of FP7. Following peer review, these applications have resulted in 150 Ukrainian research organisations being involved in 112 current FP7 research projects. The overall EU contribution to the Ukrainian partners is just over €15.5 million. The highest levels of successful participation are in the Marie Curie researcher fellowship actions, environment research and research infrastructures projects[1].

The "Horizon 2020 Handbook" is thought as a useful tool for Ukrainian researchers in order to enhance their participation in European research projects (especially Horizon 2020) and to foster the overall research cooperation between Ukraine and the European Union.

The Handbook contributes to the fulfilment of the following specific objectives:

- To promote RTDI cooperation opportunities in Horizon 2020 in order to support the creation of networks and the participation in joint projects;

- To secure the outreach of the project to interested parties and to increase awareness about the assets of RTDI cooperation with Ukraine.

Specifically, the Handbook aims to increase the potentials of Ukrainian partners to compete in European projects by facilitating the cooperation with the best Ukrainian researchers in Horizon 2020.

The Handbook is meant to be less a description of Horizon 2020 or other (RTDI) cooperation programmes open to Ukraine, as this information will be available on the according programme sites but will focus more on guiding the potential applicant through the process of bringing her/ his research idea to the stage of a coherent project proposal with considerable chances of success. Topics like the European Dimension of the project idea, methods of extracting the relevant information out of the work

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[1] See http://ec.europa.eu/research/iscp/pdf/ukraine_road_map_2011-2013.pdf, European Union – Ukraine Cooperation in Science, Technology and Innovation – Roadmap of Cooperation 2011-2013

programme and call topic, the consortium building and means of finding the relevant partners, the proposal structure, financial aspects, tips and tricks, will be given a special attention in one dedicated chapter.

However, the handbook should not be regarded as a recipe for success and information given here is not exhaustive. The way from a project idea to a successful project proposal requires individual and institutional learning efforts from the side of the applicant. The Handbook intends to lead the applicant along the stages of project development.

2. HORIZON 2020 – THE EU FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020).

By coupling research and innovation, Horizon 2020 is helping to achieve this with its emphasis on excellent science, industrial leadership and tackling societal challenges. The goal is to ensure Europe produces world-class science, removes barriers to innovation and makes it easier for the public and private sectors to work together in delivering innovation.

As a core part of Europe 2020, Innovation Union & European Research Area, Horizon 2020 aims at

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

Compared to the previous FP 7 Programme, Horizon 2020 brings new aspects in following regards:

- Horizon 2020 is a single programme bringing together three separate programmes/initiatives (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)
- It couples research to innovation – from research to retail in all forms of innovation;
- It focuses on societal challenges facing EU society, e.g. Health, clean energy and transport;

- It simplifies the access, for all companies, universities, institutes in all EU countries and beyond.

Mainly, Horizon 2020 is composed out of three main pillars:

More information available on: http://ec.europa.eu/programmes/horizon2020/.

2.1 PRIORITY 1 EXCELLENT SCIENCE

The rationale of this first priority relies on following principles:

- World class science is the foundation of tomorrow's technologies, jobs and wellbeing;
- Europe needs to develop, attract and retain research talent;
- Researchers need access to the best infrastructures.

The Excellent Science pillar has four main objectives:

1. The European Research Council (ERC) will provide attractive and flexible funding to enable talented and creative individual researchers and their teams to pursue the most promising avenues at the frontier of science, on the basis of Union-wide competition.

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2. Future and emerging technologies will support collaborative research in order to extend Europe's capacity for advanced and paradigm-changing innovation. They will foster scientific collaboration across disciplines on radically new, high-risk ideas and accelerate development of the most promising emerging areas of science and technology as well as the Union-wide structuring of the corresponding scientific communities.

3. Marie Skłodowska-Curie Actions will provide excellent and innovative research training as well as attractive career and knowledge-exchange opportunities through cross-border and cross-sector mobility of researchers to best prepare them to face current and future societal challenges.

4. Research infrastructure (including e-infrastructures) will develop European research infrastructure for 2020 and beyond, foster their innovation potential and human capital, and complement this with the related Union policy and international cooperation.

The budgetary allocation can be seen in the following table:

Sections	Budget (MEUR)
European Research Council Frontier research by the best individual teams	13 095
Future and Emerging Technologies Collaborative Research to open new fields of innovation	2696
Marie Curie Actions Opportunities for training and carrier development	6162
Research infrastructures (including e-infrastructures) Ensuring access to world class facilities	2 488

More information on: http://ec.europa.eu/programmes/horizon2020/en/h2020-section/excellent-science.

2.2 PRIORITY 2 INDUSTRIAL LEADERSHIP

The rationale behind this pillar can be summarised as follows:

- Strategic investments in key technologies (e.g. advanced manufacturing, microelectronics) underpin innovation across existing and emerging sectors;
- Europe needs to attract more private investment in research and innovation;
- Europe needs more innovative SMEs to create growth and jobs.

This pillar aims to speed up development of the technologies and innovations that will underpin tomorrow's businesses and help innovative European SMEs to grow into world-leading companies.

It consists of three specific objectives:

- "Leadership in enabling and industrial technologies" will provide dedicated support for research, development and demonstration and, where appropriate, for standardisation and certification, on information and communications technology (ICT), nanotechnology, advanced materials, biotechnology, advanced manufacturing and processing and space. Emphasis will be placed on interactions and convergence across and between the different technologies and their relations to societal challenges. User needs will be taken into account in all these fields.

- "Access to risk finance" will aim to overcome deficits in the availability of debt and equity finance for R&D and innovation-driven companies and projects at all stages of development. Together with the equity instrument of the Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (COSME) (2014-2020) it will support the development of Union-level venture capital.

- "Innovation in SMEs" will provide SME-tailored support to stimulate all forms of innovation in SMEs, targeting those with the potential to grow and internationalise across the single market and beyond.

Available funds can be seen in the following table:

Sections	Budget (MEUR)
Leadership in enabling and industrial technologies (ICT ,nanotechnologies, materials, biotechnology, production, space)	13557
Access to risk finance Leveraging private finance and venture capital for research and innovation	2842
Innovation in SMEs Fostering all forms of innovation in all types of SMEs	*616*

More information available on: http://ec.europa.eu/programmes/horizon2020/en/h2020-section/industrial-leadership

2.3 PRIORITY 3 SOCIETAL CHALLENGES

Taking into consideration that:

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

Societal Challenges bring together resources and knowledge across different fields, technologies and disciplines, including social sciences and the humanities. This will cover activities from research to market with a new focus on innovation-related activities, such as piloting, demonstration, test-beds, and support for public

procurement and market uptake. It will include establishing links with the activities of the European Innovation Partnerships (EIP).

Funding will focus on the following challenges:

- Health, demographic change and wellbeing;
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the 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.

The proposed financing is given in the following table:

Sections	Budget (MEUR)
Health, demographic change and well being	7472
Food Security, sustainable agriculture, marine and maritime research & the bio economy	3851
Secure, clean and efficient energy	5931
Smart, green and integrated transport	6339
Climate actions, resource efficiency and raw materials	3081

Inclusive, innovative and reflective societies	1310
Secure societies	1695

More information is available on:

http://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges

2.4 PARTICIPATION OF UKRAINE IN HORIZON 2020

There are 3 categories of applicants entitled for funding under Horizon 2020:

- Applicants belonging to EU member states and associated countries
- Applicants belonging to Non EU countries automatically eligible for funding
- Applicants belonging to non EU conutries which are not automatically eligible for funding.

Ukraine belongs to the first group. The Association agreement to Horizon 2020 was signed on **20 March 2015** between the European Commission and Ministry of Science and Education of Ukraine.

The Association agreement enables research institutions, universities, businesses and innovators from Ukraine to fully participate in Horizon 2020. From now on, Ukraine will, for example, be able to host European Research Council (ERC) grants, apply for financial support to innovative SMEs, benefit from support for scientific excellence and other research policies and participate in the H2020 governance structures.

The agreement *need to be ratified by the Ukrainian Parliament* to enter into force, but Ukrainian legal entities can already participate in all Horizon 2020 actions funded under the 2015 budget, as this association covers the years 2015-2020.[2]

For updates see: http://ec.europa.eu/research/iscp/index.cfm?lg=en&pg=ukraine

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[2] See (25.3.2015) http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf

3. FIRST STEPS IN THE ELABORATION OF A PROJECT PROPOSAL

Due to the complexity of the programme there is the need of a systematic approach towards a successful participation to Horizon 2020. In fact, this statement is valid for all publicly financed programmes and principles are the same.

Further, we intend to develop a logical flow chart of an Horizon 2020 project generation approach, as shown in the figure below. This is not a magical solution, but, more likely, an attempt to ease the efforts of those who wish to participate in European research projects and feel a little discouraged by the complexity of this instrument.
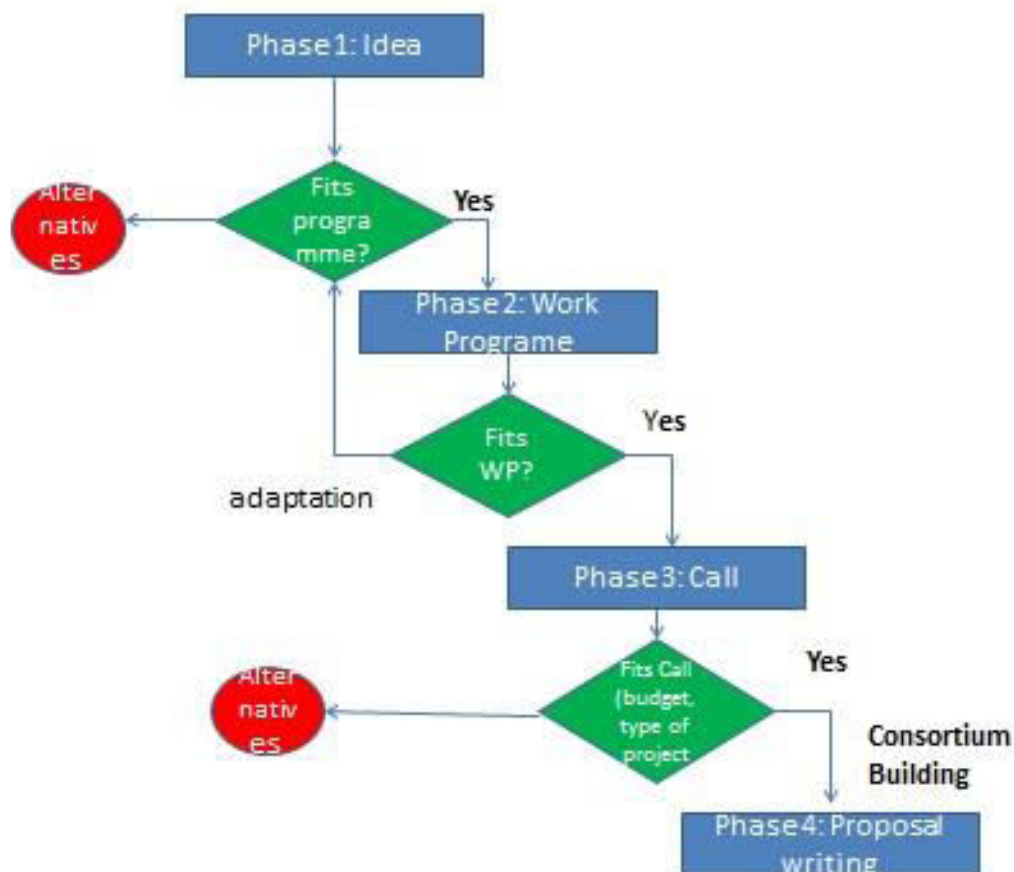
3.1 PROJECT IDEA. EUROPEAN DIMENSION.

To have a successful project you need a valid idea in the first place. The project idea should be based on real research and innovation needs identified by the developer, which, ideally speaking, should at their turn reflect an industrial demand.

Generally speaking, Horizon 2020, with the notable exception of specific topics such as the SME instrument, remains faithful to a "top down" approach. So, the idea should not only be anchored in reality, but moreso, it must fit within the general R&I priorities already established by the European Commission. However, Horizon 2020's range of topics is quite generous, so it should rarely happen that your project idea will not fit within the priorities of the program.

To be noted that, in the European Union, prevails among others the principle of subsidiarity. This means that the EU does not solve problems that can be solved on a regional or national level. In Horizon 2020 terms, this means that the project idea must have a European dimension. In other words, the added value of the project should take effect on a European level. Projects of national interest must be resolved at a national level. The first consequence of this principle is that you must be involved in this project along with partners from several European countries and the idea should consider a matter of European interest.

Questions: Does your project idea reflect real R&I needs? Does your project idea fit intto the priorities of Horizon 2020? Does your project idea have a clear European dimension?

3.2 WORKPROGRAMME.

After we have set the priority in which our idea fits in best and we are assured of its European dimension, we have to wait the opening of a call for proposals ("call") in that priority. These calls open a few months before the deadline, but it is not indicated to act passively and start the project preparation only after the opening of a call. Calls can be foresighted by a careful reading of the workprogramme.

The workprogramme is a comprehensive document which exposes the Commission's objectives on a certain priority. These documents cover a wide horizon of time (2 years as a rule). By carefully reading this document you can predict the occurrence of certain calls and their goals, so you can start prepare your project with sufficient time in advance: you can seek potential partners, you can write a summary of the proposal (proposal abstract) etc.

To come to the relevant work programme you need to go the following path. Let us take the example of nanotechnologies:

HOME – Horizon 2020 Programme – Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing and Biotechnologies – Work Programme

Question: Does your project idea fit into the priorities of the Work Programme?

3.3 THE CALL

The launching of a call represents the final decision point wether or not a project proposal is to be sumbitted.

The site of each call contains important information about:

- Date of opening and closure of the call;
- Budget;
- Important documents related to the call, such as: the work programme, generalmpresentation of Horizon 2020;
- Topic description, refering to the specific challenge, scope and expected impact;
- Submssion documents: list of countries and applicable rules for financing, eligibility criteria, evaluation criteria, Guide to submission and evaluation, type of actions available for the call;
- Access to the electronic submission system.

To arrive to a relevant call you need to go the following path. Let us take the example of nanotechnologies:

HOME – Horizon 2020 Programme – Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing and Biotechnology - Calls

3.3.1 THE BUDGET OF THE CALL

The budget of a call gives a very important hint on the chances that your project should be selected for financing. Let us take an example: supposing a call foresees a total budget of 10 Mio EUR and support actions are considered. The maximum budget for a support action varies at around 2 Mio EUR. As a consequence, it is expected that around 5 to 7 projects will be financed. This simple calculation allows a self-assessment of the quality of your project proposal and consortium. It is an important check point leading to the decision whether to continue with the proposal preparation and submission or not.

As a rule, budgets are higher at the beginning of the Programme lifetime decreasing towards its end.

3.3.2 TYPE OF ACTIONS.

Horizon 2020 support research and innovation activities in the frame of specific type of projects, called actions. The type of action specifies:

- the scope of what is funded;
- the reimbursement rate;
- specific evaluation criteria to qualify for funding.

As follows, we list the most relevant types of actions:

3.3.2.1. RESEARCH AND INNOVATION ACTIONS

They support activities aiming to establish new knowledge or explore the feasibility of a new technology, product, process, service or solution. For this purpose they 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 of all activities and participants: 100%

Eligibility of participants: Defined in the Work programme. Minimum 3 independent legal entities from different member states or associated countries

Main activity type: Research and Development.

Activities: All activities can be covered. They can support the whole project range from large Integrated Projects to small Targeted Research Projects.

Relation to FP7: They would cover the following project types from **FP7**:

– Integrated projects (IP); – Grant for objective driven research;

– Focused projects (STREP); – Grant for specific focused research.

3.3.2.2. INNOVATION ACTIONS

They support activities 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 of all activities and participants: 70% (except non-profit organisations: 100%).

Eligibility of participants: Defined in Work Programme. Minimum 3 independent legal entities from different member states or associated countries

Main activity type: Innovation activities – activities close to the market

Activities: All activities can be covered. They can support the whole project range from large Integrated Projects to small Targeted Research Projects with a focus on innovation

Relation to FP7: They would cover the following project types from FP7:

– Integrated projects (IP); – for take up actions;

– Focused projects (STREPs); – Grant for specific focused innovation projects.

3.3.2.3. COORDINATION AND SUPPORT ACTIONS

They are accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies.

Funding of all activities and participants: 100%.

Eligibility of participants: Defined in Work Programme. Minimum: 1 Participant.

Main activity type: Support and coordination activities.

Activities: Accompanying measure activities, studies, networking etc.

Relation to FP7: They would cover the following project types from FP7:

– Support Actions;

– Coordination Actions.

3.3.2.4. GRANTS OF THE EUROPEAN RESEARCH COUNCIL TO SUPPORT FRONTIER RESEARCH.

EU funding rate – 100%

Starting Grant - support up-and-coming research leaders who are about to establish a proper research team and to start conducting independent research in Europe. The scheme targets promising researchers who have the proven potential of becoming independent research leaders. It will support the creation of excellent new research teams for researchers of any nationality with 2-7 years of experience since completion of PhD (or equivalent degree) and scientific track record showing great promise.

Consolidator Grant - support researchers at the stage at which they are consolidating their own independent research team or programme. The scheme will strengthen independent and excellent new individual research teams that have been recently created for researchers of any nationality with 7-12 years of experience since completion of PhD (or equivalent degree) and scientific track record showing great promise.

Advanced Grant – for exceptional established research leaders of any nationality and any age to pursue ground-breaking, high-risk projects that open new directions in their respective research fields or other domains. The ERC Advanced Grant funding targets researchers who have already established themselves as independent research leaders in their own right.

Proof of Concept Grant - open to researchers who have already been awarded an ERC grant. ERC grant holders can apply for this additional funding to establish the innovation potential of ideas arising from their ERC-funded frontier research projects.

Synergy grant - to enable a small group of researchers and their teams to bring together complementary skills, knowledge, and resources in new ways, in order to jointly address a research problem.

3.3.2.5. MARIE SKLODOWSKA CURIE ACTIONS

EU funding rate – 100%

- Marie Sklodowska-Curie Individual Fellowships (MSCA IF);

- European Fellowships;

- Global Fellowships;

- Marie Sklodowska-Curie Innovative Training Networks (ITN) Training Networks;

- European Industrial Doctorates;

- European Joint Doctorates;

- Marie Sklodowska-Curie Research and Innovation Staff Exchange (RISE);

- Co-funding of regional, national and international programmes (COFUND);

- Doctoral programmes;

- Fellowship programmes.

3.3.2.6. COFUND ACTIONS

ERA-NET COFUND

ERA-NET Cofund supports public-public partnerships, including joint programming initiatives between Member States, in their preparation, establishment of networking structures, implementation of joint activities as well as Union topping-up of a trans-national call for proposals. It is based on the merger of the former ERA-NET and ERA-NET Plus actions. It allows for programme collaboration in any part of the entire research-innovation cycle.

The main and compulsory activity of the ERA-NET Cofund is the implementation of the **co-funded joint call for proposals** to fund trans-national research and innovation projects.

The EU contribution is limited to max. **33% of the total eligible costs** of the action.

Relation to FP7: Would cover the following project types from **FP7**:

– ERANET PLUS.

– Art. 185 activities.

COFUND OF PRE-COMMERCIAL PROCUREMENT (PCP)

PCP enables the public sector as a technologically demanding buyer to encourage research and development of breakthrough solutions that can bring radical quality and efficiency improvements in areas of public interest.

The EU contribution is a proportional contribution to the total investment made by the beneficiaries in the action. It reimburses maximum 70% of the eligible costs to implement eligible activities.

COFUND OF PUBLIC PROCUREMENT OF INNOVATIVE SOLUTIONS (PPI)

PPI reinforces early deployment of innovative solutions that address challenges of public interest. The aim is to enable trans-national groups of procurers to share the risks of acting as early adopters of innovative solutions and to overcome the fragmentation of demand for innovative solutions in Europe. Each PPI action focuses on one concrete unmet need that is shared by the participating procurers and requires innovative solutions that are to a significant extent similar across countries and are therefore proposed to be procured jointly.

The EU contribution is a proportional contribution to the total investment made by the beneficiaries in the PPI action. It reimburses **maximum 20% of the eligible costs** to implement the eligible activities.
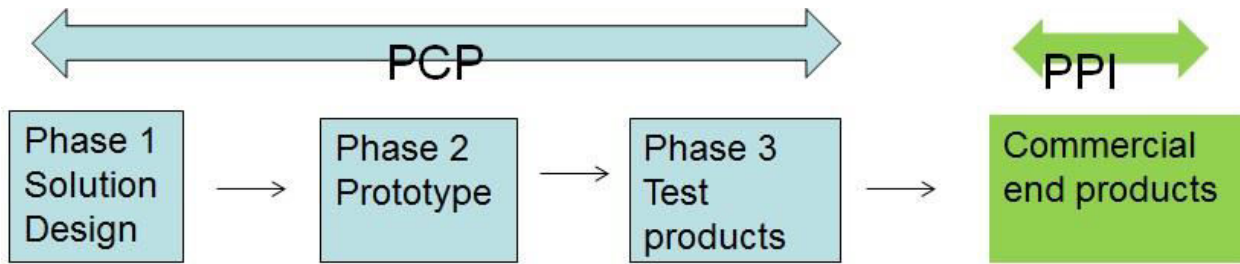
3.3.2.7. SME INSTRUMENT

Horizon 2020 introduces a new SME action for highly innovative SMEs:

Phase 1

EU funding rate – lump-sum i.e. a specific amount of funding is given.

Funds are available for feasibility study verifying the technological/practical as well as economic viability of an innovation idea with considerable novelty to the industry sector in which it is presented). The activities could, for example, comprise risk assessment, market study, user involvement, Intellectual Property management, innovation strategy development, partner search, feasibility of concept and the like.

Phase 2

Funds are available for innovation projects that demonstrate high potential in terms of company competitiveness and growth underpinned by a strategic business plan. Activities should focus on innovation activities such as demonstration, testing, prototyping, piloting, scaling-up, miniaturisation, design, and market replication but may also include some research. For technological innovation a Technology Readiness Level of 6 or above are envisaged.

Bottlenecks in the ability to increase profitability of the enterprise through innovation are analysed during phase 1 and addressed during phase 2 to increase the return in investment in innovation activities.

Questions: Is your project proposal in line with the topic of the call? Is the call budget sufficient in relation to the quality of your project

proposal and consortium? Does your project proposal fit into the type of actions given in the call?

3.4 CONSORTIUM BUILDING. PARTNER SEARCH.

From a formal point of view, each call indicates the minimum number of partners, as a rule minimun 3 partners from different member or associated states. However, this information does not say much, as a clear European dimension of the project has to be evidentiated. As a consequence, the consortium must be built up out of a sufficient number of partners from different European countries. From the experience of previous programmes, on could approximate the indicative number of partners: around 10 in IPs, 6-15 in STREPs and so on.

The quality of the consortium is an important factor of success in Horizon 2020. There are several ways of finding relvant partners, the most important are shown as follows:

3.4.1 CORDIS.

CORDIS is the European Commission's primary public repository and portal to disseminate information on all EU-funded research projects and their results in the broadest sense.

Its main advantage lies in the significant number or partner profiles (over 5000 in January 2014). The disadvantage consists in the fact that information in the profiles are not verified, you take the risk of building up the consortium with „strangers".

3.4.2 IDEAL IST. PARTNER SEARCH FOR NANOSCIENCES AND NANOTECHNOLOGIES, MATERIALS AND NEW PRODUCTION TECHNOLOGIES. FIT FOR HEALTH. IMI PARTNER SEARCH.

IDEALIST Partner Search is developed by the ICT NCPs network, but the partner profiles are not limited only to ICT. The service includes advice on creating your profile by your local NCP and there is a quality control of all the published data.

Partner Search for Nanosciences and Nanotechnologies, materials and New production Technologies Facility has been established by the network on NMP NCPs in order to offer best support to its clients. This web service is strictly focused on the open calls for proposals of the key enabling technologies **Nanotechnologies, Advanced Materials,**

Biotechnology and Advanced Manufacturing and Processing* of *HORIZON 2020 and related actions like FET open and ERA-NETs like SIINN and M-ERA.NET.

Fit For Health has been developed by the Fit for Health network in close cooperation with the Health-NCPs. The quality checked database contains expertise profiles of researchers and SMEs acting in the Health / Life sciences sector. The service includes partner search activities advice on all aspects related to a research project, starting with help in first orientation and strategy development to proposal preparation, implementation, exploitation and promotion.

IMI Partner Search is a recent partner search service provided by the Innovative Medicines Initiative Joint Undertaking (IMI JU) for organisations interested in the development of new medicines. IMI supports collaborative research projects and builds networks of industrial and academic experts to boost pharmaceutical innovation. There are also opportunities for SMEs, such as innovative biotech enterprises.

3.4.3 ENTERPRISE EUROPE NETWORK

EEN is the most important instrument in support of international cooperation with regard to commercial relations, transnational technology transfer and participation to international research programmes, in particular Horizon 2020.

The Enterprise Europe Network (EEN) publishes an extensive number of innovation and technology profiles from international companies and research organisations to help identify suitable partners for bilateral business, innovation and technology cooperation and participation to joint research projects.

The EEN database is updated with new profiles on a weekly basis. All profiles are published anonymously. Express your interest in collaboration by filling in and sending the Expression of Interest form to your local EEN office, who will establish the contact. The database is also a simple way of following the development of technologies and trends in your area.

The main advantage of the network lies in its geographical coverage: over 600 regional points all around the world and in the highly qualitative published profiles which undergo a severe quality checking process. Its main disadvantage lies in the relative

slow response derived from the principle of functioning including 2 intermediate regional EEN points as shown in the figure below:
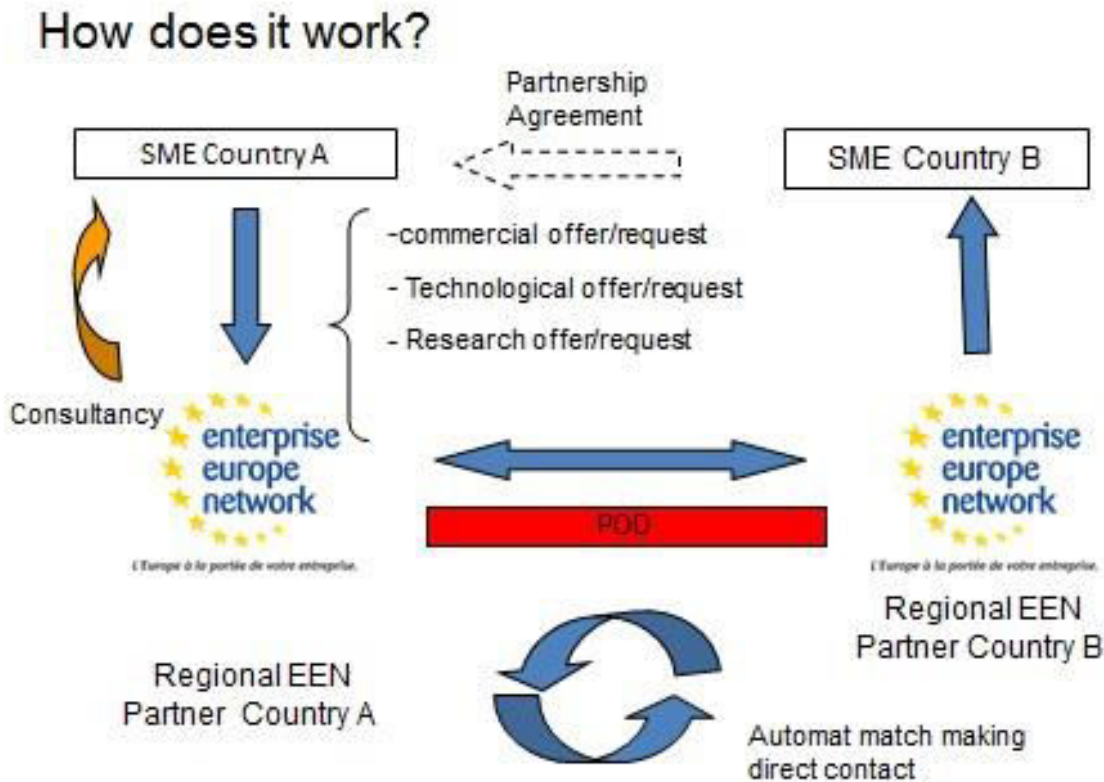
In order to beneficiate from the network support you have to address to the EEN regional point closest to you. Currently, in Ukraine there are 8 EEN contact points: 8 in Kiev and 1 in Simferopol. For further information, please consult http://een.ec.europa.eu/about/branches/UA/.

3.4.4 NATIONAL CONTACT POINTS

The network of National Contact Points (NCPs) is the main structure to provide guidance, practical information and assistance on all aspects of participation in Horizon 2020.

NCPs are national structures established and financed by governments of the 28 EU member states and the states associated to the framework programme. NCPs give personalised support on the spot and in applicants' own languages. The NCP systems can vary from one country to another from highly centralised to decentralised networks,

and a number of very different actors, from ministries to universities, research centres and special agencies to private consulting companies.

In general, the following basic services are available agreed by all countries:

- Guidance on choosing relevant H2020 topics and types of action;
- Advice on administrative procedures and contractual issues;
- Training and assistance on proposal writing;
- Distribution of documentation (forms, guidelines, manuals etc.);
    - Assistance in partner search.

To find your relevant NCP please follow the path. Let us take the example of nanotechnologies.

HOME – National Contact Points (scroll down the page and select Ukraine and NMP) - Search.

In order to find the appropriate Ukrainian NCP, you can address the **Centre for Scientific and Technical Information and Innovation Promotion of Ukraine (NIP) and** http://www.fp6-nip.kiev.ua/index.php/en/fp7/fp7-ncp/.

3.4.5 INFORMAL CONTACTS

It is very advisable to meet with (new, potential) partners on various occasions such as events, conferences or in other projects or business relations. Informal contacts lead to the build-up of a trust capita which is very important in the running of the project in all its phases.

3.5 HORIZON 2020 CHECKLIST

In the following table we present a check list of questions to be answered along the way from an idea to a project proposal:

Nr.	Step	Filter	Yes	No
1	**The idea**, based on real research needs, also based on the requests expressed by the industry.	Does the idea fits the priorities of the program?	OK	Finding an alternative source of funding: - private; - national programs; - structural funds.
		Does the idea have an European dimension?	- pointing out the added value of the project; - choosing a representative European consortium.	Finding an alternative source of funding: - private; - national programs; - structural funds.
2	**The Workprogramme** – upon identifying the appropriate thematic priority where our project idea fits in, it advisable to study the Workprogramme in order to better understand the objectives of the specific priority and to determine the timeframe when the next call of proposals will be launched.	Does your project objectives correspond to those in the Work Programme?	- clearly highlight this accordance when drafting the project; - getting in contact with the partners; - writing a summary of the proposal; - contacting the national point responsible for validating the idea and eventually for finding partners.	If possible, you can try to adapt you project objectives as to fit to the objectives in the Work Programme.

3	The Call: - budget; - Call Topic; - available type of actions.	Is the budget indicated in the Call enough so that your proposal might have real chances of success?	- establishing the maximum budget of the project according to the budget indicated in the Call, the type of the action chosen and the Commision's intentions on the number of projects to be funded.	Wait for the next Call.
		Do the objectives of the call topic coresspond to your project objectives?	- clearly highlight this accordance when you draft the project.	If possible, you adapt your project.
		Do the available type of actions match to your project objectives?	- choosing the right type of actions; - organizing preparatory meetings.	Wait for the next Call.
4	The writing of the project – in English.			

3.6 RESEARCH PARTICIPANT PORTAL.

On the Research Participant Portal, non registered users can:

- Search for funding;
- read the funding guide & download the legal documents;
- check if an organisation is already registered;
- contact the support services or check the FAQs.

While registered users can:

- submit a proposal;
- sign the grant;
- Manage their project(s) throughout its (their) lifecycle.

3.6.1 REGISTER AN ORGANISATION

The Commission has an **online register of the beneficiaries** participating in the EU research and innovation or education, audiovisual and cultural programmes. This allows consistent handling of the beneficiaries' official data and avoids multiple requests for the same information.

If you want to participate in a project proposal, your organisation needs to be registered and have a **9-digit Participant Identification Code (PIC)** that is the unique identifier of your organisation and will be used as a reference by the Commission in any interactions.

To register an organization, please follow this path. Note that you have to have already an ECAS account: HOME – Participant Portal (you have to log in) – My Organisations

3.7 STRUCTURE OF A H2020 PROPOSAL

Comprehensive detalis on the proposal structure can be found on:

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html

Forms are available in the submission system for each call. They are divided in 2 parts:

3.7.1 PART A

Part A contains a set of forms where administrative issues about the project proposal are to be filled in.

Form A1 – General Information about the project proposal;

Form A2 – Information about the partners;

Form A3 – Financial information;

Form A4 – Ethical issues;

Coordiantor has to fill in Forms A1,A3, A4.

All partners have to fill in A2.

All costs are to be given in EUR and excluding VAT (except for the case when VAT is eligible, for organisations which do not have the right to claim it back via the normal procedure).

Within A1 following data are requested:
- Proposal acronym (a short title which allows the identification of the proposal);
- Proposal Title;
- Project Duration (in months);
- Keywords defining most relevant activities;
- Proposal Summary (must be concise and precise: objectives, methodology and relevance to the work programme to be highlighted);
- Previous similar proposals;
- Declarations on eligibility, ethical issues, financial viability.

Within A2 following data are required:

- PIC and legal name of the organisation;
- Short name of the organisation;
- Full address;
- Legal status of the organisation in relation with research and innovation activities: public body, non profit, international organisation, international organisation of European interest, secondary or highe reducation establishment, research organisation, SME, academic sector;
- NACE code of the organisation;
- Possible dependence to other partners;
- Data of the contact person.

Form A3 refers to the budget broken down into cost categories.

Form A4 refers to issues such as human embryos, animals, environment protection etc. involved in the research of the project.

3.7.2 PART B

Part B represents the technical description of the project proposal. The candidates have to prove that the chosen methodology and implementation plans are well elaborated, that the consortium is relevant and that they will react in an appropriate manner to sudden changes and risks. All proposal have to have concrete deliverables and deadlines all along the life time of the project. .Proposal should not be longer than 70 pages with a minimum font size of 11 points. The page size is A4 and all margins must be at least 15 mm (not inlcuding headers and footers). Page limit for the first stage proposal is 15.

The cover page contains the proposal title, acronym, the list of participants and the tabel of contents.

The content of the proposal follows exactly the evaluation criteria:

EXCELLENCE

Objectives: They should be clear, measurable, realsitic and achievable during the life time of the project. Objectives should be consistent with the expected exploitation and impact of the project.

Relation to the Work Programme: The way how the proposal addresses the specific challenge and scope of the topic should be explained.

Concept and approach: Main ideas, models and assumptions; position along the innovation chain (lab to market, idea to application); connection to current national or international research activities; methodology.

Ambition: Your contribution beyond the state of the art and the innovative character should be highlighted.

IMPACT

Expected impact: You should refer to expected impacts in the work programme, improvement of innovation capacity meeting the needs of European and global markets.

Measures to maximize the impact: The dissemination and explanation of results covering the whole range of users and uses, including research, commercial, investment, social, environmental, policy making, setting standards, skills and educational training. Communication activities should also be taken into consideration.

IMPLEMENTATION

Work Plan – Work Packages, deliverables and milestones: These include: a brief presentation of the overall structure of the work plan, timing of the different

workpackages and their components (Gantt chart), a detailed work description in separate tables according to each workpackage and a graphical presentation of the components showing their inter-dependence (Pert chart).

Management structure and procedures: These include among others : the organisational structure and teh decision making and risk assumption.

Consortium as a whole: This section addresses the way in which the proposed consortium will address the project objectives as well as complementarities between the members.

Ressources to be commited: Infromation in this section has to match with A3 Form (Budget).

MEMBERS OF THE CONSORTIUM: This section describes in detail main tasks of each member, provides CVs of the persons to be involved in the project as well as a description of activities to be subcontracted, selected subcontractors and justification. Please note: this section is not covered by the page limit!

ETHICAL ISSUES: This section stays in relation with Form A4 and must provide an ethic self assessment in view of meeting national legal and ethical requirements and how this issues will be addressed.

3.8 FINANCIAL ASPECTS

There are several types of costs to be financed under Horizon 2020:
- Direct Personnel Costs;
- Travel costs and related subsistence allowances;
- Durable equipment;
- Consumables;
- Subcontracting (to some extend);
- Meetings;
- Costs for actual or virtual access to research infrastructure;
- Costs for dissemination and open access;

- Costs for protection of results;
- Other specialties according to the call.

Not eligible are the following types of costs:

- VAT (eligible if not refunded by tax authorities);
- Duties;
- Provisions for losses;
- Debts and costs for debts;
- Costs related to return on capital;
- Costs incurred during suspension of the implementation of the action
- Bank costs charged by the beneficiary's bank for transfer from the EC/Agency
- Interest owed;
- Doubtful debts;
- Currency exchange losses;
- Excessive or reckless expenditure.

3.8.1 PERSONNEL COSTS

Following rules apply for personnel costs:

- Timesheets are obligatory but not for employees working exclusively and full-time for the project.
- Payment must be according to standard in your company, not higher, not lower.
- Full costs are eligible, i.e. incl social security, pension schemes, Xmas bonus etc. according to the regulations in your company and according to local laws.
- Only working hours for the project are to be considered (not for internal meetings, trainings etc.; Hours for travelling for the project is ok; teleworking is ok; Overtime paid out is ok if needed for the project and paid).
- Secondments are eligible.
- SME owners paid according to a flat rate (~ 55 Euro per hour).
- Max hours per year 1720 or less according to Grant Agreement Model.

3.8.2 DURABLE GOODS

Following rules apply for durable goods:

- You have to ensure best value for lowest price (transparent bidding procedure, equal opportunities, follow European legislation on tenders, usually 3 offers).

- They are eligible only if needed for the project.
- Only NET costs are eligible (see Grant Agreement Model).
- Only depreciation during runtime of the project is eligible.
- Installation and fright can be included, maintenance is referred as consumable.
- Import duties are not eligible.

3.8.3 TRAVEL

Following rules apply for travel:

- Costs are available if they occur in direct correlation with the project.
- No luxury is allowed but only Economy Class flights, 2nd class trains, etc., standard hotel rates apply; daily allowance is acceptable, all according to your legislation and internal rules.
- Only NET costs are eligible with the exception of flight tickets where tax is not stated and receipts from abroad with no tax mentioned.
- Conference fees should be mentioned already in the proposal.

3.8.4 SUBCONTRACTING

Subcontracting refers to contracts to independent companies outside the project

- Only for less important tasks, not for research;
- Can be expensive though;
- Typical examples:
- webpage programming;
- catering on meetings;
- room rental fees for conference:
- graphics designer and printing for flyers, brochures;
- No overheads are allowed on subcontracting.

3.8.5 OVERHEADS

Overheads cover all expenses like electricity, heating, administrative support etc. The rate is applied in the direct net costs (except subcontracting). Unlike FP7 which used different overhead calculation rates (7%, 20%, 60%, actual indirect costs), Horizon 2020 uses only one rate: 25%.

	Indirect cost options	Funding rate RTD	Funding rate demo	Funding rate management, dissemination, training
Universities	20%, 60%, real	75%	50%	100%
Research Organisations	20%, 60%, real	75%	50%	100%
SMEs	20%, 60%, real	75%	50%	100%
Industry	20%, real	50%	50%	100%

One project = One rate

	Indirect cost flat rate	Funding rate RTD calls	Funding rate close to market calls
All Beneficiaries	25%	100%	70%

4. BILAT-UKR*AINA – SERVICES IN SUPPORT OF UKRAINIAN RESEARCHERS

The Horizon 2020 Handbook for Ukrainian Researchers is a result of the activities that the members of the BILAT – UKR*AINA team are running with the aim of providing a framework to foster cooperation in Research, Technological Development and Innovation(RTDI) between the European Union (EU) and Ukraine. By its full name, „Enhancing the BILATeral S&T Partnership with UKRraine * Advanced INnovative Approach", BILAT UKR*AINA is a FP7 project running between September 2012 and June 2015..

The members of the project consortium are:

Centre for Social Innovation in Austria (ZSI), acting as the project coordinator, a scientific institute, founded as a not-for profit association under Austrian law in 1990. . ZSI is an independent institution, acting globally by deployment of innovative research, education, advisory services and co-ordination of networks. http://www.zsi.at/.

Centre for Scientific and Technical Information and Innovation Promotion of Ukraine (NIP) Its mission is to create conditions to maintain and develop the Ukranian scientific, technical and intellectual potential by means of industrial and economic implementation of innovations in Ukraine and abroad. NIP assists Ukrainian scientific organizations and enterprises to promote their technologies and innovations both to Ukrainian and world markets. http://www.fp7-ncp.kiev.ua/index.php/en/

Centre for S&T Potential and Science History Studies (named after G.M. Dobrov) of the National Academy of Sciences of Ukraine (STEPS) G.M.Dobrov STEPS Center of the NAS of Ukraine has existed since 1986. But its history goes back to 1965, when a team of science on science researchers had began to establish within the department on computing methods for historic information at the Institute for History of the Academy of Sciences of Ukraine. http://stepscenter.ho.ua/indexen.htm.

National Centre for Scientific Research, France (CNRS) The Centre National de la Recherche Scientifique (National Center for Scientific Research) is a government-funded research organization, under the administrative

authority of France's Ministry of Research. CNRS research units are located throughout France, and employ a large body of tenured researchers, engineers, and support staff. Laboratories are all on renewable four-year contracts, with bi-annual evaluation. http://www.cnrs.fr/index.php.

Project Management Agency c/o German Aerospace Center (DLR) | European and International Cooperation

The key responsibility of the department for European and International Cooperation at the Project Management Agency c/o German Aerospace Center (DLR) is to support stable international cooperation in the areas of education and research). www.internationales-buero.de/en/

Polish Academy of Sciences, Poland (PAN)

PAN is a state scientific institution founded in 1952. The main activities of the organisation are research activities, presentation of opinions and programmes concerned with science and the practical application of its results, international scientific cooperation effected through membership in international scientific organisations and cooperation with foreign scientific institutions, concluding agreements on scientific cooperation with foreign and international organisations and institutions, education on different levels, cooperation with other scientific institutions and higher education institutions and with science societies, issuing opinions on drafts of legal acts concerning science, its application and education. http://www.english.pan.pl/

Research & Development Engineering and Manufacturing for Automation Equipment and Systems, Romania (IPA SA)

IPA SA is a 47 years old Romanian industrial R&D company located in Bucharest and is the most important private Romanian Institute for R&D, Design, Production, and Service for Automation and IT, with a large experience in European projects in technology transfer and in information dissemination. http://www.ipa.ro/ipaen/index.html

Center of Practical Informatics of the National Academy of Sciences of Ukraine (CPI NASU)

The Center of Practical Informatics was set up on March 12, 1993 by NAS Presidium resolution No 548. Research and science-organizing activities of the center are aimed at informational monitoring and management of NAS activities and resources. Among the main tasks of the center are: research into tools and methods for monitoring and management of NAS activities and resources; research into properties of the information infrastructure of NAS entities; and working out the requirements to the NAS corporate information system and to its separate components http://www.nas.gov.ua/en/Structure/riunasp/cpi/Pages/default.aspx.

Regional Centre for Information and Scientific Development (RCISD)

RCISD (Regionális Információs és Fejlesztő Tudásközpont) is an SME, founded by scientists and R&D managers to carry out scientific research but also for participating in coordinating & support actions, furthermore functioning as a back office, where the management R&D activities can be outsourced. As a platform for regional and international cooperation RCISD is particularly interested in contributing to the development and integration of support strategies and decision making practices in strategic international cooperation projects. http://www.rcisd.eu/

Besides the Horizon 2020 Handbook, BILAT-UKR*AINA provides a well-balanced range of services for different stakeholders including research organisations, STI policy level institutions, funding bodies, National Contact Points (NCPs), research-oriented SMEs, industry and the media to enhance bilateral RTDI cooperation between the EU and Ukraine.These services include:

- targeted consultancy to optimise the exploitation of STI cooperation potentials;
- promotion of Horizon 2020 for mutual benefit;
- training activities to support a new generation of Ukrainian researchers and the continuing professional development of Ukrainian NCPs;
- analytical groundwork to substantiate the STI policy dialogue;
- dissemination activities to ensure that information reaches relevant stakeholders.

To enhance the Ukrainian participation in Horizon 2020 BILAT-UKRA*INA organises a series of several information and mentoring Webinars on the opportunities for Ukrainian researchers and project experts on the EU's new framework programme for research, technology and innovation. These web sessions are free, easily accessible and open to all S&T actors interested in Ukraine-EU co-operation. They offer concrete opportunities for EU-Ukraine co-operation within Horizon 2020, focusing on thematic priorities and other relevant topics (e.g. health and transport). The aim of the webinars is to promote S&T co-operation opportunities between Ukraine and EU and to support the creation of networks and the participation in joint projects.

Further information about next activities is available at: http://www.bilat-ukraina.eu/

REFERENCES

Literature:

Baban, S. e. (2007). *Ghidul FP7.* Bucuresti: IPA.

ZENIT Gmbh. (2007). *Europaeische Foerderung von Forschung und Innovation.* Duesseldorf: WesfTeam marketing Gmbh

Web content:

BILAT-UKR*AINA: http://www.bilat-ukraina.eu/

S&T UKR Gate: http://www.st-gateukr.eu/index.php

Enterprise Europe Network: http://een.ec.europa.eu/

Horizon 2020 : Excellent Science

http://ec.europa.eu/programmes/horizon2020/en/h2020-section/excellent-science

Horizon 2020 : Reference Documents:

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html

Horizon 2020 Home Page: http://ec.europa.eu/programmes/horizon2020/Horizon 2020:

Industrial Leadership: http://ec.europa.eu/programmes/horizon2020/en/h2020-section/industrial-leadership

Horizon 2020: Societal Challenges:

 http://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges

National Contact Points:

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

Participant Portal :

https://ec.europa.eu/research/participants/portal/desktop/en/home.html

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