



Summary

The IncoNet CA project is an action funded by the European Commission that intends to support the advancement of the bi-regional STI (Science, Technology, and Innovation) policy dialogue between the EU Member States/Associated Countries and Central Asia (CA), with an explicit focus on the Societal Challenges (SC) that have been identified to be of mutual interest for the two regions, namely: Climate Change, Energy and Health.

In particular, the project identifies actions and stakeholders and implements innovative pilot activities to strengthen the coordination and impact of the individual actions

In this context, three Policy Stakeholders Conferences (PSCs) were organised with the main objectives of drawing on the most relevant international policies, initiatives and different programs targeting the CA countries, namely Kyrgyzstan, Kazakhstan, Tajikistan and Uzbekistan, on different levels. The general objectives are to:

 brings together policy makers, representatives of research communities and representatives of the private sector to support the bi-regional policy dialogue between EU and the countries of CA in STI in order to complete the dialogue,

- assist existing platforms and to provide suggestions to the invited stakeholders on the results from analytical evidence and monitoring exercises basis;
- take stock and showcase best practices regarding EU-CA scientific cooperation, discuss concrete innovation cooperation projects, and promote international collaboration, networking, matchmaking with the intention to foster mutual policy learning between EU MS/AC and the countries of CA through the analysis of the policy needs of STI collaboration and the formulation of recommendations;
- in addition, the conferences provide opportunities to present diverse projects from the Central Asian region as well as best practice examples with the aim to create synergies among stakeholders for future cooperation activities in H2020 and beyond.

Introduction

The IncoNet Central Asia Policy Stakeholders Conference "EU–Central Asia STI cooperation in addressing Health Research & Innovation" took place in Warsaw, Poland on 16–17 May 2016. It was the third and final event of its kind organised by the IncoNet CA project and the fifth one in a series of similar successful forums for policy dialogue between stakeholders started by its predecessor project IncoNet CA/SC. The previous two PSCs within the IncoNet CA project were organised in Astana, Kazakhstan, from 30th September to 1st October 2015, focusing on Energy, and in Bishkek, Kyrgyzstan, on 23th and 24th September 2014, focusing on Climate Change.

The conference provided the opportunity for an intensive exchange of views on regional and international STI policies, research programmes and projects addressing Health – primarily Health Research and Innovation – among high-level policymakers, international organisations, and representatives of the research communities in the EU MS/AC and the CA countries, and other key stakeholders active in the region.

The main goals of the conference, among others, were to:

 Identify regional, international initiatives, common objectives, operational instruments (programmes),

- and shape future cooperative initiatives addressing Health between the EU and the CA countries;
- Present good practice examples in order to stimulate new synergies in the area of Research and Innovation in Health under the European Union's current Framework Programme for Research and Innovation;
- Formulate recommendations on the enhancement of the EU-CA STI cooperation in addressing Health issues that could be integrated in the current and forthcoming agendas and funding instruments by the relevant STI actors involved in cooperation;
- Strengthen STI cooperation as a common interest of the EU and CA at strategic and operational levels.



The conference gathered 62 policy makers and representatives of the academic and scientific communities from 52 organisations from 14 European and Central Asian countries (Austria, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Kazakhstan, Kyrgyzstan, Netherlands, Poland, Tajikistan and Uzbekistan). The event was jointly organised by the Centre for Regional and International STI Studies and Support (CeRISS/Greece), the Institute

of Fundamental Technological Research Polish Academy of Sciences (IPPT PAN/Poland) and the Regional Centre for Information and Scientific Development (RCISD/Hungary).

A Major European Health Initiatives– Needs, Opportunities

Health is a significant field of cooperation between the EU MS/AC and CA, whose importance is mirrored by the high interest of health-related stakeholders to this conference, who presented their current international strategies and initiatives operating in the EU MS/AC and in Central Asia. The EU presents itself in Central Asia through several programmes and projects providing Health Research and Innovation opportunities. However, ISTC, GFSR and UNDP are the major donors in this area within the region.

Horizon 2020 promotes Health, Demographic Change and Wellbeing and supported related projects through its all funding instruments. Horizon 2020 is open to eligible participants from Central Asia for funding alongside the participants from the EU. The Horizon 2020 Work Programme 2016–2017 on Health initiates proposals in several topics (personalised medicine, healthy ageing, Health ICT, infectious diseases, human biomonitoring, maternal and child Health). The programme is not specifically designed for collaboration with Central Asia, however, is suitable for fields of health research, considered as priority topics for EU-Central Asia collaboration. The EU also has a significant role in strengthening medical research for a better Health system: the European Commission's Scientific Panel for Health provides foresight, overall vision, strategy and identifies bottlenecks to innovation and proposes solutions.

Active and Health ageing is at the top of the EU's interest, since ageing population is one of the biggest challenges. European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) is a pilot initiative launched by the European Commission to foster innovation in the field of active and healthy ageing. The Partnership gathers stakeholders from the public and the private sectors across different policy areas who work on shared interests, activities and projects to find innovative solutions that meet the needs of the ageing population. The Partnership offers a framework for cooperation in order to address barriers hindering innovation. It intends to expand the partnership, strengthen the international cooperation and include new partners.

ISS, the Istituto Superioredi Sanità, presented its experience regarding international policies and its project on Health Research and innovation. The ISS is the leading technical-scientific body of the Italian National Health Service (SSN), performing under the supervision of the Ministry of Health research, trials, control, documentation and training on Public Health. There are several cooperation actions in the framework of the S&T Cooperation Agreement between the Government of Italy and institutional counterparts. Both parties issue calls for proposals of joint research projects exhibiting strong bilateral impacts either by strengthening existing or new collaborations.

National Centre of Research and Development in Poland gave an overview of international initiatives on Health and possibilities, concepts of participation



in **ERA-NET** projects. The objective of the ERA-NET scheme is to step up the cooperation and coordination of research activities carried out at national or regional level. The scheme also enables national systems to take on tasks collectively that the centres cannot tackle independently. Under the ERA-NET scheme, national and regional authorities identify research programmes

they wish to coordinate or open up mutually. There are several ERA-NETs in the field of Health, such as ERA-NET Transcan on cancer research, ERA-NET E-Rare-3 on rare disease research, Infect-ERA on human infectious diseases, ERA-NET ENM on nanomedicine, ERA-NET Neuron on neuroscience. Several ERA-NETs aim to improve the collaboration by widening the concept, by including underrepresented countries and by enlarging the consortium. Joint calls for proposals are one of the centrepieces of their activities. In the case of most of the Co-fund ERA-NETs under H2020s, CA countries can participate in their calls. For instance, Almaty government intends to participate in ERANET co-funding schemes.

CA national policies on Health Research with local solutions

Management¹ of ministries or institutes dealing with Health Research from all CA countries gave an overview about the state of affairs of national policies on Health Research and innovation in their countries. All speakers aimed at giving more or less clear picture of the state of the art in the field of healthcare system and medical science in their countries. The proposals of joint EU–CA efforts were presented to bring solutions to some urgent challenges. Best practice examples and possible areas for international cooperation were also touched upon.

¹ Health Department of Almaty, Kazakhstan; Institute of Gastroenterology of Academy of Medical Sciences of the Republic of Tajikistan Science, National Centre of Cardiology and Therapy of the Kyrgyz Republic; Republican Specialized Scientific-Practical Medical Centre of Obstetrics and Gynaecology, Uzbekistan

The overview of the current situation on Health Research and Innovation in the CA countries highlighted a general agreement on several critical points for collaboration:

- Active development of effective and cost-efficient management approaches;
- Sufficient e-Health service;
- Stronger scientific activity, utilization of research results;
- Development of training and education programmes for the new generation of young researchers;
- Integration of medical science in CA countries to the international and global scientific network, active participation in international projects;

- Using more possibilities to obtain grant support from international research foundations and other international organizations;
- Improvement of obsolete Health system infrastructure and higher participation of private sector
- Increase of financial resources for the conduct of research.

In Kazakhstan, the current priorities of Health care system are science, medical education; the stable epidemiological situation of majority of infectious diseases; well-developed infrastructures; and funding system. However, Kazakhstan has to deal with several weaknesses, such as lack of funding; sanitary-epidemiological service maintenance and insufficient e-Health service. The main opportunities of the country are among others the positive



dynamics in main demographic health indicators, increasing investments, strengthening international and regional cooperation. The development of Healthcare system is strongly supported by governmental initiatives such as the Almaty Development Programme 2020. These regulations help Kazakh Health managers and researchers to ensure the sustainable socio-economic development of the country. Moreover, the Almaty government is interested in participating in ERANET co-funding schemes, such as the public Health system development and improvement of intersectional collaboration within the city, coordination of European funding for infectious diseases research, ERA-Net for Research Programs on Rare Diseases. It aims also to participate in TRANSCAN-2 whose goal is to coordinate national and regional funding programs for research in the area of translational cancer.

In Kyrgyzstan cardiovascular diseases and noncommunicable diseases, lung cancer, and respiratory diseases, especially among highlanders indicate the highest mortality rates. Therefore, the main national strategy is the prevention and control of non-communicable diseases. The main challenges in the country are the low scientific activity and motivation, the small number of randomized controlled trials, and the limited resources for medical science. Prospects for the development of health research suggest, among others, the strong support of the Government and the Parliament of Kyrgyzstan, the National Science Foundation that started developing a new Strategy of Science and the National Coordinator for Horizon 2020. There is also need for increasing the international cooperation in Health, especially in Horizon 2020. In 2016 Kyrgyzstan, the FreshAir project participates in H2020 as the first project to be realized in Kyrgyzstan in cooperation with numerous international partners.

In Tajikistan the policy document "Conception of Health Care Reform in the Republic of Tajikistan" identifies the main objectives and related developmental strategies for Healthcare reform in the country that includes strengthening of the primary Health care, developing human resources, strengthening management capacity and ensuring necessary data for management of health care. Health care research and innovation sector aims at strengthening the position of the Tajik Health care research and scientific centers in the international scientific and innovation area. Other priorities argue for better integration into the EU and global scientific community and improvement of the research process. The main weakness of the current Health Research system in Tajikistan is the lack of coordination. Health research priorities are not defined, which makes difficult to ensure that research is focused on priority Health issues.

In **Uzbekistan** the priority areas of Health Science are, among others, pharmacy, paediatrics, obstetrics and endocrinology. In the field of Health Research, the main **priorities are development of medical research**, increase of its efficiency, and implantation of scientific and technical achievements and advanced experience into medical practice. The Republican Specialized Scientific-Practical Medical Center of Obstetrics and Gynecology might serve as a good example for better STI cooperation in addressing Health for other CA countries.

B Good practice examples and lessons learnt

The challenges of innovation activity in the CA countries and the promising areas of cooperation with the European Union were also discussed in the conference. Several institutions and Health related projects presented their initiatives, programmes and good practices on Health Research and innovation during the conference, such as: Bibliometric Analysis of Joint EU–CA Publications in Health, the IncoNet CA Twinning Activities, the EIT Health, The "Live Healthier" Cluster programme, the Science and industry collaboration in Response to the Growing Needs of an Aging Society, the Polpharma Group's Perspectives of Cooperation with Central Asia, the FP7 HITT-2008 and H2020 FRESH AIR Project.

The aforementioned institutions and projects developed useful options and recommendations regarding the future of the scientific cooperation between the European Union and Central Asian countries.

A Bibliometric Analysis of Joint EU–CA Publications in Health was conducted under IncoNet CA. Its main goal was to provide a picture and an analysis of the state-of-the-art and recent trends in EU/AC–CA research collaboration. Another aim was to make the ongoing collaboration visible. The data was collected from 2003 to 2013. The EU, Russia, the US, Germany and UK are the most important co-publication partners. Co-publications with the EU/AC have a higher growth rate than those with the US

and Russia. The analysis has also found that from the three main topics: Energy, Climate Change and Health, the field of Health had 2,147 co-publications from the total 14, 881 publications. The most important conclusions of the project were that there is a high rate of co-publication and that the EU countries are getting more important in cooperation in the region. While Kazakhstan attracts most projects on Health, Kyrgyzstan and Tajikistan are also relatively well represented. The most active organisations are the national academies in each CA country as well as some institutes of universities.

The aim of the **Twinning Activities Performed** under the IncoNet CA Project was to increase the participation of CA countries in EU Horizon 2020 calls, to support the information exchange among partners and to achieve the strongest collaboration potential between CA and EU. As for now, that the IncoNet CA project comes to its end (September 2016), the grants have already been distributed and the impact of this activity will become progressively more visible at least one year after the end of the project. The target groups of the twinning grants are small, flexible projects were financed in the fields of the 3 Societal Challenges (Climate Change, Energy, Health). As regards health twinning teams, 5 projects from the 11 positively evaluated applicants received grants from CA countries, namely 3 from Uzbekistan, 1 from Kazakhstan and 1 from Tajikistan. As an outcome,



it came out that the development of more twinning teams involving CA partners through in-loci face-to-face contacts is needed, with the identification of specific H2020 calls and the preparation of applications to H2020 calls. Last but not least, enhancing the chance of successful application with supporting the preparations for proposals for HORIZON 2020 calls is also essential.

EIT Health (European Institute of Innovation and Technology) organisation is an independent EU body which tries to boost innovation and support new talents and ideas. Health EIT aims at enhancing Health and education in the following high potential areas: promoting healthy living and supporting active aging. EIT highlights the importance of the connection between education, innovation and citizens. The idea is that these three elements form a triangle in which all of the points connect, having effects on each other. The ambitions for 2016 are to develop organizations,

strengthen the already existing partnerships and have new ones. Another aim is to build new connections between the CA and EU and also to deliver tangible results. EIT Health Innostars in Poland, Łódź, hosted the dedicated CA session on 13 May, attended by selected stakeholders from CA countries. It supports innovation working as an agency and distributing financial support in 3 ways: EIT Health CAMPUS fosters excellence and innovation in health and business. education, EIT Health Innovation Project programme is a powerhouse for generating new ideas for healthcare, EIT Health Accelerator gathers the best health industry entrepreneurs and facilitate start-ups to bring their idea to the market. These programmes that contribute to widening international network with universities and institutions from the industry can be outreached beyond other countries from CA. In the CA region the main focus is on education and mobility, besides on projects dealing with ageing, women's health, societal challenges, IP management

and commercialisation. EIT Health wants to encourage know-how strategic development as well.

The "Live Healthier" Cluster programme in Lodz deals with active life and healthy ageing not only in the territory of Poland but also in the CA region. They are looking for networking possibilities to cooperate in research, innovation, business and in education. In this programme there are more than 20 partners; several Health centres and companies work together, foundations and institutions as well, and the project also gets support from authorities. The programme also welcomes new partners and new ideas, so it is a future possibility for the CA region.

The Polish **Polpharma Group** is mainly active in Kazakhstan, Russia and in the Central and Eastern Europe (CEE) region. The Polpharma Group's perspectives of cooperation with CA is aiming at the cooperation with the Kazakh SANTO factory. The cooperation is a complex system, it works in the following way: in the frame of the Academic and Research Programme each Kazakh institution or university has a Polish partner. As for the future, Cluster Projects 2015–2019 are prepared to strengthen new technology process development, to achieve best practice training in new product development and regulatory standards, to develop new herbal products and finally, to find new R&D Center for Pharmaceutical producers in South Kazakhstan.

The HITT-2008 programme (Living conditions, lifestyle and trends in population Health in NIS countries) founded by the European Commission under FP7 is a research project performed from 2000 to 2013, which treated research and innovation from a sociological

point of view. In the programme research was measured by surveys, concerning consortium, networks, leaders and contacts. The goal was to understand longterm trends of population Health as a consequence of socioeconomic transitions, with a focus on lifestylerelated issues.



The H2020 FRESH AIR Project (Free Respiratory Evaluation and Smoke-exposure reduction by primary Health cAre Integrated gRoups) with Dutch leading copes with inner air pollution and smoking in different regions, in the CA region as well. The overall aim is to improve Health outcomes for people at risk of or suffering from non-communicable lung diseases in low-resource settings by developing capacity for implementation of evidence-based interventions for prevention, diagnosis and treatment in these contexts. In the CA region the main problem is the addiction of smoking and the effect of indoor burning of biomass fuels when cooking.

C Recommendations for a stronger EU–CA cooperation in Health

The major Health related topics in CA countries in need of attention and strengthened cooperation with the EU are following:

- Ageing society, maternal and newborns Health, early stage diagnostics;
- Diabetes;
- Cancer;
- Addictions: drugs and smoking;
- Cardiovascular diseases: hypertension, stroke;
- Epidemiology;
- Tuberculosis;
- Behavioural and brain research;
- Infections:
- Mental disorders:
- Healthy life (food, sport);
- Water sanitation.

The serious Health threats in CA countries are following:

- Quality of Healthcare, efficiency measurements of the Healthcare systems;
- Mechanisms and priorities in research projects, development of centers of excellence;
- Immigration, climate change, water sanitation.

Even though the major Health topics and threats are familiar to the EU, the European representatives at the conference suggested a deeper analysis, survey or assessment for purposes of analysing and raising strengths and comparative advantages of CA countries in order to foster a more efficient cooperation. Regarding the calls for research funding, the EU is suggested to include incentives for joint consortia of CA and other European partners.

Need for more efficient flow of information and for a more developed communication system

Based on the world café discussion, the most important recommendation of CA countries is to have developed tools for continuous exchange. For that, it is necessary to employ a platform accessible for both, the EU and the CA partners. Modern communication technology tools might contribute to effective communication. The biggest challenges in mutual cooperation are working together systematically and finding out how to make CA countries popular for EU countries. For the CA region the discussion of the Health-related topics would be helpful. Each CA country needs to efficiently and continuously advertise its current research activities, programmes, special targeted Health topics and national priorities in order to extend the collaboration with the EU. That is why it is preferable to use modern

communication technologies, to establish a shared network system, a portal, in which both the CA representatives and the EU partners can easily exchange information. It is also crucial to educate program owners about the cooperation programs, potential benefits and the need for collaboration. On the other hand, NCP² shave a really important role in connecting the EU and the CA region. As it was mentioned during the world café discussion, there should be more opportunities similar to effective NCP systems in the region in order to get more information concerning the cooperation. The EU is quite proactive in CA through NCPs, but the role of the NCPs should be consequently strengthened.

Need for capacity building

NCPs are relevant not only for information flow but also because they can assist the CA partners on applying to EU calls. Developing capacities in proposal writing would help the CA region to further participate in EU calls and the extended experience with projects will even enable to lead international consortia. In the discussion it was also pointed out that the EU regulations are not fragmented in a way that they make difficult to apply, but in a way that they support successful application procedure.

Creating synergies with the EU by exploiting the existing bilateral and national programmes

Although the S&T cooperation between the EU MS/AC and the partner countries of Central Asia is already quite developed, there is a **strong interest on both sides to further enhance the bilateral STI cooperation and twinning activities in Health**. Besides exploiting the bilateral cooperation to trilateral, multilateral cooperation, the widening it with SMEs, governments, academia and industry shall also promote stronger cooperation. Joint Programming Initiatives, pooling national research efforts in order to make better use of public R&D resources and tackling common challenges more effectively in a few key areas, could also provide a platform for collaboration.

IncoNet CA organizes several events that facilitate further cooperation between EU and CA countries, such as workshops and trainings on H2020 current calls, the twinning grants for teaming-up scientific projects and institutions and the grant scheme for participation in H2020 brokerage events.

CA countries can also benefit e. g. from the best practice and H2020 success stories and information on operation of H2020 projects.

Participation of the CA countries in the mentioned policy-related instruments and schemes (ERANETS, JPIS, EIT, EU H2020 Health work programme) contributes also to a stronger cooperation with the EU. Concluding with future possibilities, several new ideas came up

National Contact Points: the network of NCPs is the main structure to provide guidance, practical information and assistance on all aspects of participation in Horizon 2020. NCPs also facilitate finding the appropriate partners from the EU for collaboration. NCPs are established in many non-EU and non-associated countries ("third countries").

as the roadshow of ideas in the region concerning Health and the annual conference giving researchers opportunity of convincing investors to support their work. Another helpful tool to promote will be the cofinancing by government, public and private sector. Lastly, for the CA region the opportunity of participation in the EU research mobility programmes would be beneficial.

Expectations from the CA region

Regarding future cooperation, there were several expectations from the CA region presented in the world café discussion. One of them was to develop,

implement and monitor standards for research following international examples. Also, monitoring research ethics and culture would promote cooperation between the EU and CA. It is crucial to mention that initiatives for cooperation need to come from CA researchers, and they need to be proactive and initiative. In finding partners, CA is responsible for its visibility. Last, but not least, strong development of intra-regional cooperation is needed in Central Asia. Some changes of the political systems are understood as necessary for enhancing development in STI-cooperation. Especially local, regional solutions are believed to work very efficiently.





D Conclusions

On the EU side, the engagement towards Health cooperation with the Central Asian countries is in line with the EU strategy for international cooperation in research and innovation. The IncoNet CA project and the current Policy Stakeholders Conference are part of a larger effort for enhancing and focusing on international cooperation. IncoNet CA formulated the goals to promote the EU–CA cooperation at different levels and to implement variable support actions (studies, grants, twinning, trainings, workshops,

etc.) to assist the CA countries in integrating the EU-funded R&D programmes. The Policy Stakeholders conference served not only for networking of the stakeholders but also as a platform for gathering new ideas on how to develop the cooperation.

Regarding co-publications, the main and strongest co-publications partner in the area of Health is for Central Asian scientists the EU/AC. The publication output is in all CA countries stable or slightly

increasing, in particular in Kazakhstan has showed a tremendous growth rate during the last two years, it can be argued the publication output in STI is developing. However, still in the smaller countries, the dependency on collaboration is higher. In this way, the EU–CA cooperation is an important driver of CA internationalisation

The EU programme Horizon 2020 is the main instrument for funding Health Research and Innovation at European level and it is the largest program in the world for funding collaborative research and innovation actions. The programme is fully open for international cooperation. In the H2020 Work Program 2016–2017 the Health, success rate of Central Asian countries is quite low. For a better success rate it is significant to establish cooperation with industry and SMEs, to create more SMEs from CA through spinoff, start-up programmes and to give more emphasis to innovation and market research. The CA research community, research institutions and universities need to adapt to new R&I conditions and be able to effectively develop a product. There is also a strong interest in increased mutual understanding achieved through partnering events in order to learn needs, capacity and expertise of CA countries.

The conference resulted in:

- Analysis and identification of the most important regional, international initiatives, common objectives, operational instruments (programmes), in the field of Health Research and innovation;
- Full integration of CA into international collaborations, such as H2020, ERA-NETs, etc.;

- Stronger scientific collaboration with CA countries;
- Facilitation of R&D and cooperation with Industry;
- Enhancement of scientific and educational exchange programs for the CA countries;
- Mutual interaction within the knowledge triangle (Higher education, Research and Business);
- Innovative combination of schemes and grants;
- Further development in mutual cooperation.

The conference concluded that strengthening cooperation in medical research for better Health is as important for EU as it is for the CA region. Changing society and new challenges demand the new research and innovation framework and strategy. The conference with the previous two serve as a successful platform, on which grounds the cooperation can be developed and where new ideas can be realised as well as problems can be understood and discussed.

At the end of the 3rd and last PSC we can talk about an existing network and cooperation between EU/MC and CA region, though it is also true that for fruitful future cooperation, both parties should engage in intense information exchange, partners search, self-presentation and visibility for others.

After closing the third PSC of the IncoNet CA project it was obvious that the STI cooperation between the European Union and Central Asia in addressing Health necessitates an integrated approach. This needs to include cooperation with stakeholders beyond the STI sector, such as the national ministries, the civil society and the international donor organizations.



Contact

Would you like to learn more about the collaborative opportunities offered by the European Union and its funding programmes? Feel welcomed to contact your local NCP coordinator office, as listed below:

- Center for Innovative Development of Science and New Technologies of ASRT
 33 Rudaki, 734025 Dushanbe, Tajikistan;
 +992 37 221 83 90, www.anrt.tj
- Committee for coordination of Science and Technology development and Indo-Uzbek Centre for promotion of Scientific and Technological Cooperation (IUCP-T)
 70 Yahio Gulomov street, 100047 Tashkent,

Uzbekistan; +998 71 233 24 29, www.uzscience.uz

- Independent Expert Consultative Board to Promote Scientific Research Activity in Kazakhstan
 224 Bogenbay batyr street, 050026 Almaty, Kazakhstan; +7 727 3544989, www.inexcb.kz
- National Library of the Kyrgyz Republic
 208 Abdrakhmanov street, 720040 Bishkek,
 Kyrgyzstan; +996 31 230 46 75, www.nlkr.gov.kg



