

**SmartEIZ – H2020-TWINN-2015**

**Strengthening scientific and research capacity of the Institute of Economics, Zagreb as a cornerstone for Croatian socioeconomic growth through the implementation of Smart Specialisation Strategy**

<b>Work package:</b>	WP4 - Capacity Building Activities
<b>Deliverable Title:</b>	Staff Exchanges and Training Workshop
<b>Task 4.3:</b>	Organization of Training Workshops (TW)
<b>Task Coordinator:</b>	ICRIOS
<b>Participants:</b>	All Partners
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## 1. Introduction

The key motivation for the SmartEIZ project is based on several facts. Croatia's innovative position relative to the other EU members might be considered unfavourable; relevant public institutions that provide support for R&D cannot provide effective technological and innovative services and there is a growing awareness of the importance of topics related to Research, Development and Innovation among researchers in Croatia. There is a growing need to change the mode of growth from consumption and low-tech services-driven to knowledge-driven growth economy. In turn, this requires better understanding on how RDI and technology operate in the economic system. Research in the area of Economics and Management of Innovation and Technology (EMIT) has become increasingly important for the Institute of Economics, Zagreb (EIZ) to improve its scientific excellence, enhance its policy advice capacity, with a special attention to the Research and Innovation Smart Specialization Strategy (RIS3), and strengthen its regional reputation. There is a growing need for EIZ researchers to improve methodological and analytical skills. This project aims to strengthen the scientific and research capacity and narrow networking gaps and deficiencies of EIZ in the field of EMIT, which might improve its research capabilities, help it analyse, design and evaluate public policies more effectively, empower EIZ to contribute to the implementation of National Smart Specialisation Strategy and strengthen the cooperation between EIZ and leading research institutions in the EU. Activities in this project include WP1 – Coordination and Project Management; WP2 – Development of Twinning Strategy for EIZ; WP3 – Designing Twinning Tools; WP4 – Capacity Building Activities; WP5 – Fostering Regional Network Capacity in the field of EMIT; WP6 – Dissemination of Results. The aim of this part is the description of TW which have been conducted in the period from April 2017 till April 2018. Initially, the plan was to finish everything till March 2018 but we received the approval for the delay from the Project Officer. Before the description of the activities at the TW, we described the idea behind each workshop, the topics as well as the approach to the organisation of TWs.

## 2. Training Workshops

As an idea, Training Workshops (TWs) are seminars of an interactive nature where participants carry out a number of training activities and work individually and / or in groups to discuss research ideas and policy implications.

In total 9 TWs were organized, 6 TWs held in Croatia, 1 in the UK hosted by UCL, 1 in IT hosted by UB (ICRIOS) and 1 in NL hosted by UNU-MERIT. It was however imperative that all of them needed to be co-designed with partner institutions. Each TW was divided in 2 parts, the first part was open to the whole scientific community and provided visibility opportunities. The second part was an intensive workshop. Each TW lasted 2-3 days. There was also budget to sub-contract experts for certain TWs, this had been arranged through UB (ICRIOS), and the procedure for sub-contracting.

The requirements for external experts (sub-contracting) were:

- Having written at least 2 articles concerning the scientific theme in international journals with an IPP referred to the years 2013 higher than 1;
- Having an h-index, at the time of appointment, greater than 3.

### Topics

The following topics are covered during TWs. These topics have been identified during the second project meeting in Milan, 20-21 October 2016:

1. Assessing innovation policy
2. Clusters
3. Global Value Chain, incl. FDI
4. Science-industry link
5. SMART skills
6. Companies, innovation and productivity

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7. Technology, Growth and Productivity incl. KET
8. Evaluation of individual R&D, innovation policy instruments
9. Entrepreneurship & knowledge based economy

These topics were based on Deliverable 2.4 of SmartEIZ named Twinning strategy for EIZ.

## **Approach**

The training workshops are more advanced with involvement of senior people from partner institutes. Wherever possible, the TWs should be applied to the case of Croatia, in line with the focus of the RIS3, smart, sustainable and inclusive regional growth and contribute to policy making in Croatia.

The partner institutions (UB ICRIOS, UCL, UNU-MERIT) agreed on the division of responsibilities of organizing the different TWs, see Table 2 below. The institute responsible for the TW developed a syllabus including a reading list and references to relevant literature. All background materials are available at <https://smarteiz.merit.unu.edu> SmartEIZ Moodle platform organized by UNU MERIT. Researchers from EIZ prepared for the TW using this syllabus. This syllabus started off the discussion internally at EIZ, leading to ideas for research discussed during the TW.

The general idea is that state of the art research is presented during the first part of the workshop; it was of an interactive nature where the audience is able to ask questions and provide input. The second day of the workshop should be policy oriented. The second part (day 3) is used to discuss research ideas from EIZ researchers. In the end, some workshops were organised and held in two days – in these cases policy and research part were held in the second part of the workshop. The objective is that it brings researchers together that work (or would like to work) on a similar topic. This leads to actual work on a research (working) paper published within the projects lifetime. In the following Table there is an Overview of TWs.

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<b>Topic</b>	<b>Organising institution</b>	<b>Location</b>	<b>Date</b>
1. Assessing innovation policy	UCL	Zagreb	19-21 April 2017
2. Technology, Growth and productivity, including KET	UNU-MERIT	Zagreb	18-19 May 2017
3. Companies, innovation and productivity	UCL	London	26-28 June 2017
4.Cluster	UB (ICRIOS)	Milan	6-8 September 2017
5. SMART skills	UB (ICRIOS)	Zagreb	30-31 October 2017
6. Evaluation of individual R&D, innovation policy instruments	UNU-MERIT	Zagreb	21-22 November 2017
7. Entrepreneurship & knowledge based economy	UCL	Zagreb	14-15 February 2018

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8. Science – industry link	UNU-MERIT	Maastricht	21-22 March 2018
9. Global value chain, including FDI	UB (ICRIOS)	Zagreb	16-17 April 2018

In the remaining text the reviews which explain activities within abovementioned Training Workshops could be read. In case where the additional researchers were subcontracted for lecturing in TWs, we explain shortly the procedure which we used for subcontracting. This explanation can be found at the end of the reviews of these training workshops.

### ***2.1 TW Assessing innovation policy***

This report summarises the main issues explored and discussed at the training workshop as well as reports on the main messages from the sessions.

The rationale for the workshop is well expressed in the conclusions of the Compendium of evidence on innovation policy project:

*‘Governments have implemented a wide range of policies to encourage innovation with a view to stimulating economic growth. .... Evidence for their impact, however, is often limited, widely dispersed and exists in many different forms – from academic research to internally-commissioned programme evaluations’.* Source: Compendium of Evidence on Innovation Policy, <http://www.innovation-policy.org.uk/compendium/>

The aim of the training workshop was to provide an introductory and systematic overview of theoretical, design and implementation issues related to the innovation policy studies –

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body of knowledge scattered between academic papers, consultancy reports, policy documents and evaluations. The workshop followed definition adopted in the UK NESTA Compendium project which defines innovation policy as ‘public intervention to support the generation and diffusion of new products, processes or services’. This encompasses a broad array of policies, programmes, and initiatives which directly or indirectly encourage innovation.

The three days training workshop (TW) covered the wide of range of theoretical, design and implementation issues relevant to the practice of innovation policy. The main part of the workshop was an exploration of Croatian innovation policy in all three dimensions: its theoretical basis, design issues and implementation opportunities and challenges (see the program in Annexe).

The program was broadly structured in three major areas: the first day was focused on the innovation policy support for SMEs; the second day on issues related to smart specialisation; and third day on the emerging new issues in innovation policy. However, each of three days was also enriched by presentations of academic papers and analyses of Croatian scholars which were reviewed and discussed by resource persons. Also, each of three days was closed by a panel discussion which brought together Croatian and foreign researchers and policy makers and administrators. All presentations and background papers are uploaded on TW platform Moodle.

### **Innovation policy for SMEs**

This session has brought state of the art understanding of policy for supporting SMEs (Tseokuras, Wintjes, and Radosevic). Subsequent discussion has enabled to compare state of the art with current Croatian support for SMEs (Aralica, Jurisic, and Sesnic).

The overall conclusion was that there is a need to improve quality and ambition of SMEs support in Croatia into more explicit innovation support, i.e., to increase their absorptive capacity. A current policy focus is on inputs, not on outputs, impact and outcomes. The

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main challenges are in the relationship between agency and ministries, in how to support beneficiaries, how to bring other sources of funding and about the overall roles and responsibilities in the innovation system.

### **Innovation policy instruments, smart specialisation and Croatia**

This session gave a brief inventory of innovation policy instruments as developed by The Compendium project. Prof Jakob Edler presented the overall lessons and conclusions on policies to enhance systemic capabilities and complementarities. In continuation, presentation focus was on two major neglected dimensions of innovation policy – demand side and public procurement. Also, participants were introduced to Science & Innovation Policy Evaluations Repository (<http://www.si-per.eu/>).

Croatian smart specialisation policy was introduced by Marija Rajakovic from Ministry of Economy which was followed by panel discussion on benefits and challenges of the current implementation of this significant policy investment in Croatia. The overall conclusion is that there is the huge unexploited potential of demand side policies in Croatia, especially public procurement. Also, there has been agreement that there is need to enhance Croatian innovation policy framework towards GVC.

Prof Radosevic then presented his assessment of the EU S3 in the context of the other emerging new industrial innovation policies in the world based on the completed international book-project.

A valuable addition to the discussion was a presentation on the different discourses on Croatian innovation policy which have been analysed by Ms Mrcic from the perspective of discursive institutionalism.

### **New issues in innovation policy and Croatian context**



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This session has focused on two new major issues in innovation policy: Grand challenges and Responsible Research and Innovation (RRI). Both were introduced by Prof Stefan Kuhlman. The subsequent discussion has demonstrated a significant gap between these two state of the art approaches and the practice of Croatian innovation policy.

Panel discussion on these issues has shown that a new RDI system in Croatia which has evolved after 2013 is driven by the EU Structural funds and S3. Before 2013 Croatian innovation policy could have been described as 'research-based' while today country is moving towards 'national entrepreneurship system' idea with a strong focus on support to SMEs.

On the other hand, there have been arguments that R&D organisations have managed to 'play the game' in their favour by pointing to the strong capacity of R&D organisations to accommodate any change to their needs. The argument is that despite seeming re-orientation of R&D system, scientific papers continue to be the major output of projects. SMEs are under the radar of Research Organisations, typically large. The overall effect of the current support on R&D organisations will be an upgrade of their infrastructure through ERDF which will enable them to be better equipped to implement RD projects in H2020.

The counter-argument was that almost all activities are funded by EU Structural Funds (SF) so that Croatian innovation policy is *de facto* a cohesion policy. The majority of SF is focused on SMEs, and is a common view that science base has suffered in this process.

Given the diversity of views on this issue it seems that this topic is worth further research: whether cohesion funds and national R&D funds in Croatia operate as complements, as substitutes or are in a non-systematic relationship?

### **Analytical contributions on Croatian innovation policy**

Important part of TW were presentations of papers by Croatian authors on different aspects of Croatian innovation policy (assessment of institutional framework on S3 and its phases-Aralica; The discourse analysis of Croatian innovation policy – Mrsic, Evaluating innovation

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policy in Western Balkan; Analysis based on smart city indicators of Croatian large cities; Analysis of synergies between EU Structural Funds and H2020 – Racic and Švarc). These presentations and background papers were reviewed by invited resources persons (Tseokuras, Bruno, Wintjes, Kuhlmann and Edler). They were complemented by policy focused presentations on SMEs support in the City of Zagreb, experiences in implementation of innovation programs in Croatia, recommendations for innovation policies for the Adriatic region, and the state of implementation of S3 in Croatia)

**Summary points:**

1. TW has been very useful three days for participants as it brought them to state of the art ideas and the issues related to innovation policy
2. TW has enabled Croatian researchers to present in the presence of the resource persons areas and receive very useful and constructive suggestions on how to make their work internationally publishable.
3. TW has been early opportunity to bring together Croatian scholars in the area of innovation policy analysis and give them opportunity to discuss Croatian situation in the comparative international context
4. TW has enabled in-depth assessment of Croatian innovation policy and has clearly shown the gaps and challenges as well as directions for further improvements.
5. Finally, TW was an opportunity for establishing relationships between foreign resource persons and Croatian academics and administrators which will form the basis for further cooperation possibilities in either R&D or policy related activities.

## **Participants' assessments**

Regarding the participants' assessments of the TW, they stated their appreciation of an opportunity to be able to participate on a three day event where top EU experts in the field of innovation policy gave lectures about various aspect of Science/Technology/Innovation policy related to Smart Specialisation Strategy in the EU.

Majority of the participants of the TW were representatives from various Ministries responsible for coordination, policy design and policy implementation of Smart Specialisation Strategy in Croatia. There were two round tables within the TW. Each of them had three speakers, one top EU policy expert, one from the research sector in Croatia, and finally one from the Croatian policy bodies responsible for S3.

We asked participants whether they felt that they had acquired certain skills. Most of them have learned a particular skill from the workshop and they were satisfied for acquiring connection and networking skills.

Most of participants pointed out that the TW was a great opportunity for establishing cooperation among the S3 stakeholders in Croatia as well as for establishing cooperation with the EU experts in the field of innovation policy.

## **Subcontracting**

During the organization of the workshop, three external speakers were invited to take part in order to fill the gaps in the capacity of the consortium partners. As explained in the Grant Proposal article 4.2, external experts can be involved to address and cooperate in Training workshops with a budget of up to 3300 euro per expert.

For this particular workshop the consortium decided to look at the possible experts who were able to carry out the task. As leading experts in the area of innovation policy in the EU, the representatives from Bocconi, UNU-MERIT and UCL, using their knowledge of

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potential experts, drew up a short list of possible candidates. This process was documented and shared between all the consortium partners.

In order to achieve best value for money, the external contractors were given a budget of not more than 1000 euros.

A list of 11 candidates were identified by the consortium and taking into account the necessary high quality standards including academic excellence, engagement in current Global/EU level policy analysis and their availability to give lectures during the workshop, 5 candidates were approached. Out of the 5 candidates, only 3 were available and thus prof. Jakob Edler (Manchester Business School), prof. Stefan Kuhlmann (University of Twente) and prof. George Tsekouras (Brighton Business School) were chosen as the best, leading experts for the workshop. Finally, the choice of the three leading experts was validated by the EC project officer as communicated via the EC Portal.

## ***2.2 TW Technology, Growth and productivity, including KET***

The two days training workshop (TW) on Technology, Growth and Productivity, including KET covered a wide of range of theoretical, empirical and policy issues related to interaction of technology and productivity. The topic was investigated and discussed in four perspectives:

1. The macroeconomic perspective of growth and development;
2. The firm-level perspective of analysing panel data;
3. The key-enabling-technologies and policy

#### 4. Regional innovation and R&D policy of Croatia

The first part of the workshop took a macroeconomic growth orientation (T. Ziesemer).

(i) In a review of some descriptive and econometric evidence on the link between human capital and growth tertiary education was shown to reduce educational inequality and strengthen growth for a panel of 144 countries. (ii) An empirical open economy growth model with estimation for Croatia in the presence of imported capital goods showed that tertiary education in Croatia has a positive impact on productivity directly and indirectly via R&D expenditures and the number of researchers. Moreover, world income growth leads to higher exports with an income elasticity of almost two, enhancing imports of machinery and transport equipment (SITC 7) which in turn strengthens growth of the GDP per capita. (iii) However, under the conditions of the past all these favourable effects enhance foreign debt for Croatia. This debt partly comes in the form of foreign direct investment which may enhance employment but also discourages tertiary education.

The second half of the first day, three papers provided evidence based on firm level panel data analysis in the context of Croatia, addressing the topics of Information technology (Škrinjarić), consequences of the war for firm growth (Tkalec), and creativity & innovation (Stojčić, N., Hashi, I., Aralica, Z.). We concluded the first day with discussing challenges in doing scientific and relevant research for economic development in Croatia. In the past the main obstacle was lack of data, whereas in current time the main challenge how to include institutions into the research agenda related to economic development. The second day continued at the micro-level (the second part). A literature survey on determinants of productivity growth highlighted the heterogeneity in firms' capabilities and the importance of different sources of technological upgrading. Special attention was paid to the impacts and returns of R&D and innovation. The role and rationale of public policy in supporting R&D and innovation in firms were discussed through a framework that

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distinguishes between policies providing public inputs or market incentives, and those targeting predefined sectors and firms or with (potential) universal coverage. Among the latter, empirical evidence from industrialized economies and implementation issues were presented regarding publicly executed R&D, indirect support to R&D (tax incentives) and direct support to innovation activities (grants and subsidies). The diversity of constraints faced by Croatian firms and the challenges on the side of policy design and implementation emphasize the need to find a 'better' policy mix. (Vargas). The international dimension of productivity and technology diffusion were emphasized by considering the potential gains from FDI and international spillovers (Stojčić, N., Orlić, E.,).

Strategies to advance manufacturing were discussed. A survey of globally available key-enabling- technologies (KET) added the global dimension to the workshop. Since Croatia cannot excel in each and every technology domain, it has to set priorities for the future. Technologies which can be best applied and deployed in Croatia are most useful. The prioritized R&D policy domains should be complemented with demand-side policies. Examples have been presented of: innovation strategies and policy instruments to advance manufacturing; how to study the 'key enabling' role of technological domains. Since markets and governments may fail to predict which technology strategy would be best for the future, it should be discussed, designed, implemented and evaluated in a systemic way involving a variety of stakeholders (e.g. research organizations, firms, policymakers, agencies, communities).

Finally regional and national policy cases were discussed. A regional policy project report on simultaneous intermediation of rural talent supply, urban high-tech labour demand and adjustment of the school curriculum was presented (M. Čelan). The question how to improve Croatia's national R&D policy linked back to the macroeconomic start of the workshop. Croatia's R&D expenditures as a share of GDP is lower than that of many middle income countries although Croatia is a high-income country. The last presentation (Ramljak) presented suggestions for improving innovation policy in Croatia. These suggestions are: 1) Public and private sector should be connected and harmonized in terms of S3 implementation; 2) A set of policy measures should be harmonized with innovation

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value chain and 3) More ambitious plans related design and implementation of S3 in the future (stronger foreseen leverage effects).

The second day was rounded off by lively panel discussion on future research and policies under the inspiring guidance of the discussion leader (Zoran Aralica). Increasing coordination between public and private sector emerged as a clear challenge for the near future.

### **Participants' assessments**

The participant appreciated an opportunity to be able to participate on the two day TW with mixed topics. The first day was dedicated to the research topics related to technology, productivity and growth, including KET and the second day was dedicated to policy issues related to these topics. Some of participants commented that the TW showed in a convincing way how the analysis of productivity may influence the implementation of Smart Specialisation Strategy in Croatia. Finally, one participant stressed out the importance to listen lectures about Key Enabling Technology and policy initiatives related to this topic in the EU.

At the end of the workshop, participants were bubbling with ideas, techniques they had learned, things they wanted to change about their research upon their return, and which of the people they met they might follow up with.

### ***2.3 TW Companies, innovation and productivity***

Third SmartEIZ Training Workshop “Companies, Innovation, Productivity” was held from 26th to 28th June, 2017 at University College London, School of Slavonic and East European Studies.

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The workshop was divided in two parts. **In the 1<sup>st</sup> part** of the TW has been fully embedded into the CSSSES international conference “*Exploring Technology Upgrading in Emerging and Transition Economies: from “Shifting Wealth I” to “Shifting Wealth II”*”, held at SSEES on the 26-17<sup>th</sup> June 2017. **In the 2<sup>nd</sup> and final part**, on the 28<sup>th</sup> June, the TW has been structured around Dr. Marco Grazzi (University of Bologna) external speaker opening plenary, presentations of EIZ researchers as well as UCL partners of the project.

In the 1<sup>st</sup> day the event has started with a plenary session with five invited speakers setting the tone of the TW as a whole. This plenary was particularly insightful due to the clear intent of *all* speakers to argue how good applied research could not only entice the interest of policy makers, whose research-led policies are still limited, but also enrich the research community as a whole in the quest for a unified and interdisciplinary approach. Scholars of innovation management, international business, economics, innovation studies, etc. and social sciences more in general have the need (and duty) to embrace an encompassing approach to research, where cross-fertilisation multi/cross/inter-disciplinarily should inform and enhance local, national and international collaborations and joints project (as for example is the spirit inspiring the SmartEIZ). In this spirit the parallel sessions which followed have been characterised by high academic content and extremely lively intellectual discussions from scholars from many countries, different perspectives and sometimes contrasting perspectives and point of views. The sheer number of papers presented and the very high quality of the presentations has allowed for full immersion on the thematic areas of technology upgrading, with a particular focus on how companies level innovation strategy could enhance productivity and, ultimately, economic growth, prosperity and social well-being (e.g. lower inequality, high education, less poverty and alike). The first day has been underpinned by an excellent outset for the whole TW. The social event in the evening has spurred new intellectual discussions and debates on the remit of the research community and the duty to inform more and more policy makers and politicians. This is a challenge in its own way.



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The second day of the event has started with parallel sessions in the morning continuing the remarkable high intellectual content of the papers, thematically linked to the previous day parallel sections by ‘stream’ of research and topics. The conclusion of the parallel sessions in the early afternoon has paved the way for the afternoon 2<sup>nd</sup> plenary session of five invited speakers. In the latter the debate has reach both the pinnacle and finale as far as the policy debate is concerned. The chair of the final post presentations panel, Prof. Slavo Radosevic, has stimulated an intellectually vibrant discussion on ‘big questions’ above and beyond technology upgrading, i.e. touching social dimensions of the society, inequality, political contest and regulatory environment. The five invited speaker has taken on board this challenging topics with extreme interest. Overall, the sessions has shown a remarkable participation and extremely lively debate from the audience too on policy implications for technology upgrading in advanced as well developing countries struggling to catch up with the technology frontier (e.g. middle income trap).

The 3<sup>rd</sup> Day Marco Grazzi has started as Keynote, focusing on the intertwined relationship between three “academic” concepts: 1) Companies 2) Innovation 3) Productivity. Prof Grazzi has focus on advance methodological challenges we face when looking at the firm level data and how advanced econometrics tools can work in our favour. In the second part of the morning three EIZ researchers presented their findings, with a focus on firm level data from Croatia in the wider South-East European context. Finally in the afternoon Marco Grazzi presented a paper based on some firm-level recent research findings in Italy, Randolph Bruno on firm-level on the EU and Zoran Aralica on innovation policies in Croatia. The event was successfully concluded at 4pm with an intellectually charged and nurtured EIZ group of scholars.

### **Participants' assessments**

Majority of participants in this TW which was held in London were EIZ’s staff engaged in SmartEIZ. The participants appreciated an opportunity to listen Mario Grazzi and his lectures on firms and productivity based on EU data. Some of the participants were grateful

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about the fact that they were able listen presentations about Croatian firms and their productivity. This topic was a quite a new topic for that time. Several participants stressed out the importance of a discussion which followed the presentation of EIZ's staff. In this way they collected additional ideas for improving their papers.

During this multi-day event, feedback of how the event is going has been shared at the end of each day and feedback to facilitators and organisers. This kind of ongoing feedback allows organizer to identify and respond to problems as they occur. Most of participants feel the event was meeting its objectives.

### **Subcontracting**

For the training workshop on “Companies, Innovation, Productivity”, a keynote speaker was invited as a subcontractor. As highlighted in the Grant Proposal, external subcontractors were envisaged, with a budget of 3300 euros per expert.

For this workshop the consortium members decided that in order to achieve best value for money, the external contractor should be able to carry out their tasks using not more than 1000 euro. The choice of candidates was made according to benchmarks in alignment with the “Description of Action” of the project, and in particular:

- Having written at least 2 articles concerning the scientific theme in international journals with an Impact for Publication, referred to the year 2013 higher than 1 (Source: Scopus)
- Having an h-index, at the time of appointment, greater than 3 (Source: Scopus);

The topic of “Companies, Innovation, Productivity” is complex and aims to provide a methodological and empirical perspective on how to work on firms level data in gauging the complex and multifaceted relationship between productivity and innovation at the firm level. Based on this topic, the consortium committee decided to use the following additional criteria for the choice of candidates:

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- 1) Top expert in Europe in their respective academic or policy areas
- 2) Proven expertise in teaching
- 3) Willingness to accept payment rates well below usual consultancy fees
- 4) Availability for the chosen dates.

Five candidates were drawn up in a shared and documented meeting between the consortium partners.

According to the criteria listed above and after having reviewed and discussed the CVs supplied by the candidates, the committee unanimously decided to award the subcontract to prof. Marco Grazzi, also due to his availability in one of the busiest periods of the year. Prof. Grazzi was paid 750 euros plus obligatory employer charges.

The choice was then validated by the EC project officer as documented via the EC Portal.

## ***2.4 TW Cluster***

The Fourth SmartEIZ Training Workshop on “Cluster Evolution” was held from 6th to 8th September 2017 at ICRIOS, Department of Management and Technology, Bocconi University.

The workshop lasted 3 days and saw the participation of researchers. During the three days, EIZ researchers had the opportunity to listen to and interact with international experts discussing the topic of cluster evolution from different perspectives – industrial cluster demography and performance, cultural clusters, role of clusters in fostering SMEs performance, methods and policies for cluster evaluation. Furthermore, they also had the chance to present their own work. Finally, they also had the chance to visit RSE, an energy-oriented research centre that belongs to the Lombardy Energy CleanTech Cluster, and to listen to a very comprehensive presentation by the Director of the Cluster.

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On September 6th, four presentations were given. First, Francesco Lamperti, from FEEM Sant'Anna School of Advanced Studies discussed the role of science and technology parks in fostering firms' economic and innovative performance. Second, Dario Musolino, from CERTET (Bocconi University) presented a work on the Industrial Districts and the challenge from globalization. In the afternoon, Lucia Cusmano from OECD talked about the importance of clusters for SMEs performance across OECD countries. Then Marek Tiits, from the Institute of Baltic Studies, presented his view on cluster evolution and smart specialization strategy.

On September 7th, Massimiliano Nuccio from the University of Turin opened the workshop with a talk on cultural clusters and smart cities, followed by Carlo Pietrobelli from Roma 3 University, who discussed the impact evaluation of cluster development programs, in terms of methods and clusters. The morning session was closed by Andrea Morrison, who presented a study on the evolution of an industrial cluster from a historical perspective. In the afternoon, Salvatore Monni from Roma 3 University provided insights on a specific H2020 project concerning Energy, Cluster and Social Innovation. The last two presentations were given by two EIZ researchers – Ivana Rašić-Bakarić and Damir Anić – who presented their own work on the development of the wood cluster in Croatia and on the performance of Cluster Initiatives in Croatia.

The third day has been dedicated to learn the structure, evolution and performance of the Lombardy Energy CleanTech Cluster. Researchers went to visit RSE (Research on Energy System), a research centre which is part of the Cluster. After a short meeting with people from RSE, the Director of the Cluster Carmen Disanto gave a detailed presentation of the cluster, focusing on its organisational structure, participation to international projects and activities for cluster members. Researchers were finally taken to visit to research laboratories.

In summary, the TW has been very useful and intense. It allowed participants to get to know the state of the art in relation to cluster evolution and the most relevant emerging issues on the topic. Furthermore, EIZ researchers had the chance to present their own research in front of experts in the field and received useful comments and suggestions on

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how to bring forward their research in order to write papers that could be published in international journals. Finally, TW was not only an opportunity to establish academic relationships, but also to interact with practitioners and to exchange views on the best practices associated to clusters management, which is extremely important from a policy perspective.

## Subcontracting

During this workshop, 6 subcontractors were used over the 3 days. In order to fill these places, ensuring best value for money and a competitive analysis, ICRIOS Bocconi University issued a call on June 6<sup>th</sup>, 2017 on it's website (protocol 5508, [www.unibocconi.eu](http://www.unibocconi.eu)) and on the EURAXESS website. The call was open for 40 days and 8 candidates applied.

An internal committee was nominated and after having examined all the documents sent as part of the application process (CV, publications etc.) 7 candidates were called for interview.

At the end of this process, all 7 candidates were contacted and finally 6 were available for the workshop.

The chosen subcontractors were:

- Salvatore Monni (Roma Tre University)
- Carlo Pietrobelli (Roma Tre University)
- Dario Musolino (CERTeT, Bocconi University)
- Massimiliano Nuccio (DESPINA and Turin University)
- Marek Titiis (Institute of Baltic Studies)
- Francesco Lamperti (FEEM and Sant'Anna School of Advanced Studies)

The project consortium decided to pay each subcontractor 200 euros (plus obligatory employer charges) as well as paying their travel costs.

The choice of experts was communicated and approved by the project officer via the EC Portal.

## Participants' assessments

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Most of attendees on this TW which was held in Milano were EIZ's researchers involved in SmartEIZ. They pointed out that this TW gave them an opportunity to listen lectures from the leading experts about the various aspects of clusters. One of the participant stated that this TW had an optimal mix of policy relevant presentations in the field of clusters. Some participants stressed out that the most important issue in terms of TW 4 was an opportunity to compare the cluster performance of developed EU countries and the New Member States (NMS). There were three presentations from NMS about the clusters, two presentation from Croatia and one from Estonia.

### ***2.5 TW SMART skills***

The Fifth SmartEIZ Training Workshop on “Skills and technical change: policy issues” was held from 30<sup>th</sup> to 31<sup>th</sup> October 2017 at The Institute of Economics, Zagreb.

The workshop lasted 2 days and saw the participation of nine presenters. During the two days, EIZ researchers and their colleagues had the opportunity to listen to and interact with international experts discussing the topic of skills and technical change and their policy issues from different perspectives – skills' mismatch and possibility of reduction of skill mismatch, linking skills to innovation, policy issues, analysis of skill requirements and skill formation in Croatia, S3 in Croatia, digital transformation case in Croatia. Furthermore, they also had the chance to present their own work.

On October 30<sup>th</sup>, four presentations were given. After a brief Introduction to the workshop program, Roberto Mavilia, from ICRIOS- Bocconi University, discussed the future of jobs in terms of employment, skills and Workforce Strategy for the Fourth Industrial Revolution. Second, Mrs Efka Heder, director of South East European Centre for Entrepreneurial Learning – SEECEL presented SEECEL as an example of EU's best practices and focused her attention on Entrepreneurial Learning as one of key elements in developing entrepreneurial eco-system. Then, Paola Monti, from Fondazione Rodolfo De Benedetti and Bocconi University discussed the skill mismatch and labour shortages existing in the Italian

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Labour Market. The last presentation was given by Nicolas Ivandić, from EIZ Zagreb, who discussed the Policy Making Skills as a key learning point the digital transformation and how information & communication technologies are disrupting Established Industries. In the afternoon, a Round Table with Paola Monti, Zrinka Gregov, Frane Šesnić and Darko Oračić was organized and it has seen as Chair Iva Tomić research associate at EIZ Zagreb. Before the round table Mr. Marko Pavić, Minister of labor and pension system with a few opening remarks, opened the training workshop.

On October 31th, Roberto Mavilia opened the workshop with a talk on the impact of education policies on innovation. Then, Ante Lučić with presentation about the Future of Education – Trends Technologies and Learning, followed by Goran Radman, Vice Dean for International Cooperation IgBS e-Leadership MBA Program Director Algebra University College, who presented e-Leadership Curricula in Higher Education as a Case of IgBS e-Leadership Master and MBA Program at Algebra University College. The morning session was closed by two presentation that have seen Roberto Mavilia as discussant. The first one was focused on Lessons from Online Vacancy Index by Ivan Žilić, research assistant at EIZ Zagreb. The second one was based on Entrepreneurial Intentions in Selected Southeast European Countries presented by Edo Rajh and Jelena Budak from Institute of Economics, Zagreb.

In the afternoon, Vedran Šabić, Master's Degree (mag.comp.ing.) in Computer Science, presented the Digital Transformation as a call to action for SMEs. Finally, Nicolas Ivandić discussed about Business Design Skills focused the attention on key opportunities and objectives with Digitalization, the skills required and the projects we should start in our company.

In summary, the TW has been very useful and intense. It allowed participants to get to know the state of the art in relation to skills and technical change and their policy issues. Furthermore, EIZ researchers had the chance to present their own research in front of experts in the field and received useful comments and suggestions on how to bring forward their research in order to write papers that could be published in international journals. Finally, TW was not only an opportunity to establish academic relationships, but also to

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interact with practitioners and to exchange views on the best practices associated to skill requirements and skill formation in advanced economy, which is extremely important from a policy perspective.

## Participants' assessments

Participants agreed that this TW provided them an opportunity to exchange opinion about smart skill. This is a new topic for different sectors (business sector, policy sector and academia), and relevant for Croatian Smart Specialisation Strategy. Majority of participants appreciated the opportunity to listen the lectures about smart skills from different perspectives (education, labor market, business sector). Some participants were grateful to see the minister Mr. Marko Pavić, the Minister of labor and pension system. This was a chance to hear from him how the Ministry assessed the development of Smart Skills in Croatia. Several participants pointed out the importance of the round table where experts from the various perspectives (academia and the business sector) discussed about skill requirements and skill formation in Croatia.

### *2.6 TW Evaluation of individual R&D, innovation policy instruments*

The first day of the workshop was followed by various policy makers from Croatia and led to interesting discussions with them about what can be learned from these evaluation studies. It started with a presentation by Pierre Mohnen from UNU-MERIT of the reasons for innovation policy and the categorization of R&D tax credit programs. Two kinds of evaluation methods were distinguished, the ones based on counterfactuals and natural experiments and the ones based on structural models. He then presented three studies: one using the structural approach on the evaluation of R&D tax incentives in the Netherlands, one using the matching estimators approach on the evaluation of R&D grants in Canada and one on the evaluation of the effectiveness of the innovation box policy in the Netherlands using a difference-in-differences approach. He also emphasized the bang-for-the-buck concept and a benefit-cost analysis of program evaluations.

In the afternoon, Irena Đokić from EIZ presented the composition, the goals and the activities of the evaluation association in Croatia. Mislav Jurišić and Ivana Crnić Duplančić from HAMAG-BICRO presented a somewhat ad hoc evaluation of a proof of concept innovation policy in Croatia along the input, output, outcome and impact logic of evaluation.

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Fernando Vargas presented evaluations of three kinds of innovation policy in Chile, where, as in Croatia, access availability of good quality data remains challenge: the R&D tax incentive, the promotion of collaboration between industry and universities, and the innovation management capacity program.

The day ended with a round table discussion about the past, the present and the future of evaluation methods, a comparison between Croatia and Europe in general. Jadranka Švarc from Ivo Pilar Institute, one of panellists, argued in her short presentation that instead of evaluation, there have been 'administrative analyses' of various scientific and technology programs in Croatia, in the period from the nineties of the last century onwards. In the same period, there have only been a few evaluations in Croatia.

In terms of development of innovation programs and innovation instruments in Croatia, the main implication of existence of weak evaluation practice was that there have been a large number of programmes financed by national funds and recently by EU funds. At the same time, these programs made a weak impact on innovation policy development. A common lesson that emerged from the discussion is that policy makers do more and more evaluations, often dictated by larger organizations like the World Bank, the OECD or the EU. The collection of data during the implementation so that an evaluation can be carried out afterwards is often lacking. Government adopts or changes innovation policies to some extent irrespective of the lessons learnt from past evaluations of existing programs. Political pressures often dominate economic rationality. We should be aware of the difficulty to evaluate complete systems or combinations of innovation policies. The lack of data and the access to administrative data are serious obstacles to the conduct of evaluations.

The second day was more devoted to a presentation and discussion of various empirical papers assessing the effectiveness of different innovation policies and was also more targeted to academic research. The day started with an introduction to various econometric methods that exist to evaluate treatment effects ranging from randomized control trials to regression methods that model at the same time to endogenous selection and the effect of the selection on economic outputs or outcomes. In between these two extreme methods, you have the matching estimators, the difference in differences and the regression

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discontinuity design. What is important in all this is to account for the endogeneity of the selection mechanism, i.e. whether a particular firm gets or does not get some kind of support for innovation. Some methods rely on strong assumptions regarding the functional form, the supposed distribution of random error terms or the conditional independence of selection and outcome.

After that theoretical review of the econometric methods available in the literature presented by Pierre Mohnen, a number of papers were presented on the impact of innovation policies in Croatia by members of the Croatian team (Damir Anić, Zoran Aralica, Valerija Botrić, Sonja Radas, Stjepan Srhoj and Bruno Škrinjarić). One difficulty that all these studies are facing is the access to administrative data, the small number of observations and the shortness of the data in the time dimension. The authors of the studies have done their best to deal with these problems and try to get statistically significant results that could be of use to policy makers. Some of these studies are already published and others are at an advanced stage. The brainstorming discussion of the papers should hopefully help the authors to finalize their studies. A proposal of a study of the effectiveness of innovation policies at the micro and macro levels was also presented by two persons from Slovenia (Dejan Ravšelj and Marko Ropret).

### **Participants' assessments**

The participants appreciated that on this TW there was an opportunity to listen the lectures about evaluation of innovation policy from different perspectives. There were analysis of innovation programs efficiency and the achievement of policy objectives presented by representatives from academia as well as presentations by representatives from the policy bodies who presented evaluation of Innovation programme impact in Croatia.

Some of the participants were grateful about the round table where innovation policy evaluation practice between Croatia and developed EU countries were compared. Finally, a few participants stressed out the quality of speakers on this TW, where Pierre Mohnen, one

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of leading experts in the field of evaluation of innovation policy in Europe, gave a few lectures during this two day TW.

After the workshop, the overall level of knowledge and competences has increased, especially when it comes to the understanding of the concept of evaluation of R&D, innovation policy instruments, and applying this knowledge within respondents' institutions. Most of the participants stated that their knowledge and skills improved significantly after the workshop. In particular their ability to describe, compare and explain key theoretical and policy debates to evaluate R&D and innovation policy instruments.

### ***2.7 TW Entrepreneurship & knowledge based economy***

The 'Entrepreneurship and knowledge-based economy' training workshop took place on the 14-15th of February 2018 at the Institute of Economics in Zagreb. It was structured in two parts with the first day covering the state of the art research in the field, and the second day focusing on thematic topics that have become subjects for more recent research agenda in the field.

The first day of the workshop has started with the presentation of Dr Korosteleva who provided the context for the workshop, discussing Entrepreneurship as an evolving field of the academic research, the controversies surrounding the entrepreneurship theory, including the identification of entrepreneurial function and its role in the economic development, and measures of entrepreneurial activity, concluding with outlining the current research agenda in the field. The workshop continued with the presentation from Dr Domagoj Račić (Mreža znanja), talking about the constraints on the development of the knowledge-based economy in Croatia, and Prof Slavo Radosevic, giving an overview of entrepreneurship as a systemic phenomenon. The following two sessions proceeded with focusing on the discussion of measurement issues and looking at its application to the analysis of the state of entrepreneurship developments in

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Croatia, using Global Entrepreneurship Monitor data; the notion of entrepreneurial ecosystem and how it shapes the entrepreneurial dynamism, drawing on the GEM and OECD conceptual frameworks. High-quality presentation from academic scholars and practitioners in the field allowed for some fruitful discussions of the current key issues pertaining to entrepreneurship. Overall, the first day of the workshop has set a good basis to continue the discussion of thematic topics in the second day.

In the second day, the workshop began with focusing on topics that have become subjects for more recent research agenda in the field, including high-growth entrepreneurship and the role entrepreneurs' strategic orientation and knowledge intensive environment play in facilitating it; cultural diversity and knowledge intensity of the industrial context and how they influence start-up entry, survival and growth; social entrepreneurship and whether there is a gender gap in entrepreneurship. The discussion has continued with a round table bringing together the participants representing the private sector of the economy, the Croatian government, academia and the Centre for innovation policy in Croatia. The discussion was set around the issues related to the current constraints on SMEs and innovation development in Croatia, and how such constraints can be mitigated. The issue to what extent Croatia has been embracing the notion of a knowledge-based economy and, whether this has any noticeable impact on the economy were also raised. The panel discussion was followed by looking into the policy issues surrounding entrepreneurship development in Croatia. The workshop was concluded, drawing summary points on the state of entrepreneurship development as a field of research, constraints on SMEs' development and setting future agenda for policy-making in mitigating some of such constraints.

### **Participants' assessments**

The participants were grateful about the opportunity to discuss about SME developments constraints during the round table organised within this TW. A few participants pointed out

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the importance of this TW, in terms of choice of topics, where entrepreneurship as a topic was combined with knowledge based economy and SME development. Some participants assessed the importance of lectures about knowledge based economy constraints in Croatia, whereas some participants appreciated the opportunity to listen presentations about SME development and its constraints in Croatia.

### *2.8 TW Science – industry link*

The eighth training workshop in the context of SmartEIZ took place 21-22 of March 2018, in Maastricht, The Netherlands. The topic of this workshop was “Science-Industry linkages”. The workshop was divided into two parts. The first part of the workshop was academic in nature, following a traditional setup with paper presentations and discussants, and concluding the day with a round table discussion. The presentations as well as the audience were a mix of project partners and external people. The second part and second day of the workshop was more applied in nature, with the morning session organized by the Service Science Factory, and in the afternoon a field trip visit to the Brightlands.

The first day of the workshop started with a key note presentation by **Bart Verspagen**. He revisited a wide range of research on science industry linkages. He pointed out that there is an increasing demand for policy relevant research as well as policy advice. He emphasized that we have to look at how universities are relevant for scientific knowledge creation, and that we should look more broadly than the limited perspective of science industry linkages only looking at TTOs, patents and firms. The importance of the alignment of motivation for collaboration was pointed out, along with the importance of collaboration through networking, and the processes of initializing collaboration, as well as how results depend on knowledge demands. After the keynote touching on such a wide variety of aspects, **Fernando Vargas** presented his research about scientific systems in Latin America, looking at networks and collaborations with industry, following a top-down perspective. Following was a presentation by **Damir Anic** who presented a comprehensive literature review on how effective science-industry linkages facilitate collaborative research. **Irena**

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**Dokic** presented from the Croatian perspective, investigating the contribution of Croatian Polytechnics to the building of science-industry linkages. After that the discussion turned to a specific industry case by **Lili Wang**, who showed how the knowledge transfers from science to technology in the case of nano medical device technologies specifically. The afternoon session continued with the impact of competition and the regional environment on the knowledge transfer outcomes of universities and research institutes by **Nordine Es-Sadki**, and the academic paper part was concluded by **Rama Kummitha** focusing on an inclusive smart city, with a paradox approach to promote a quadruplex model, and calling for a holistic view on science and industry linkages. Overall the programme of the first day workshop was quite intense, with many paper presentations that spurred discussion throughout coffee breaks. At the end of the day some of the more prominent points were further discussed in the panel discussion (**Rene Wintjes, Vladimir Cvijanovic, Zoran Aralica, and chaired by Bart Verspagen**) on “Who benefits in what way from science-industry cooperation?”. People engaged in the debate topics such as growing demand for the relevant policy was revisited, as well as the regional competitiveness evidence, variations across sectors, the TTO focus on technology dimension, the formal linkages vs how that works with future technology, and how to align policies, and form innovation policy and measure and optimize innovation performance.

The second day was much more applied in nature and the half day was an action based workshop led by the Service Science Factory’s scientific direct **Dominik Mahr**. After introducing SSF and how they facilitate, enable and expand the science - industry collaboration, there was an interactive session working in sub-teams on the topic of power of networks and systems, applying it to a specific case in the health care sector where innovations and industry met. The workshop worked to co-create solutions, and by ideation and concretization further ideas to shape science-industry collaboration and grow the power of the value network. The value added of the workshop:

1. get introduced to design thinking



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2. get introduced to the value network tool (a tool that they can apply in any situation, assess the status quo of partners working together and further shaping the network to reach the full potential)
3. work in subteams and co-create solutions, action-based, interactive learning experience, fit with afternoon programme (Brightlands)
4. learn and apply different techniques to stimulate creativity
5. work towards concrete ideas in the workshop and share these among the subteams
6. all the steps in the workshop was guided in such a way, that much was covered in this comparably short amount of time. Templates were designed and prepared specifically for the workshop.

After the engaging and lively morning session, the participants had the opportunity to participate in the Joint UNU-MERIT/School of Governance Lunch Seminar by **Tommaso Ciarli**, on Innovation, Structural Change and Inclusion. Following this paper presentation, there was organized transportation to the Brightland Campus in Maastricht, where **Charles Beckers**, the Community Development Manager of Brightlands, Maastricht Health Campus presented how Brightlands has evolved over time, and how they are locally working on science-industry linkages, as well as how important the local government is in facilitating this. Following his **presentation Sarfaraz Syed**, the CEO of Next Generation Sensors, presented his company, and how the technical and science demands do not always match up with marked demand, and how it had been a learning experience.

After transportation, back to the city centre the workshop was successfully concluded.

### **Participants' assessments**

Regarding the participants' assessments, they mostly appreciated UNU MERIT's lecturers. Several participants were grateful about the opportunity to listen Bart Verspagen and his

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lecture about the science industry linkages. Minority of participants of this TW which was held in Maastricht were EIZ's staff engaged in SmartEIZ project. They pointed out the importance of the second day which was more applicable and included a seminar about the use of design thinking within science industry linkage as well as visit to Brightlands Campus where examples of science industry cooperation were presented. One participant said that the most important message from this TW was that in terms of science industry linkage we should focus on the following issues: motivation for collaboration, importance of collaboration through networking as well as results dependence on knowledge demands.

### ***2.9 TW Global value chain, including FDI***

The ninth SmartEIZ Training Workshop named “*Global Value Chain in the context of Research Innovation Strategy and Global Industry 4.0*” was divided into two parts. The first was dedicated to theoretical and policy context of Global Value Chain. The second day explained the policy context of implementation of GVC. Since Croatia is a country with the least presence of GVC compared to other Central East European countries, the second day the TW explored potential of participation of Croatia's firms within GVC in the future. The second day included the following topics: GVC in Croatia, Catching up Along the Global Value Chain, Sectoral/Local Value Chain, as well as Digital Transformation.

The ninth SmartEIZ Training Workshop on “*Global Value Chain in the context of Research Innovation Strategy and Global Industry 4.0*” was held from 16<sup>th</sup> to 17<sup>th</sup> April, 2018 at the Institute of Economics, Zagreb. The workshop lasted 2 days and saw the participation of 9 researchers. Moreover, Mr. Igor Matanović from the Croatian Chamber of Economy had one presentation. During the two days, EIZ researchers had the opportunity to listen and interact with international experts discussing the topic of Global Value Chain from different perspectives with a particular focus on the GVC in Croatia. Furthermore, they also had the chance to present their own work. On April 16<sup>th</sup>, six presentations were given. After a brief introduction to the workshop program by Zoran Aralica from the Institute of Economics,

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Zagreb and Roberto Mavilia, from ICRIOS - Bocconi University, the first speaker, Fabio Landini from the University of Parma and ICRIOS-Bocconi University discussed the theory of catch-up cycles with a history-friendly model perspective. Second speaker, Valentina Meliciani, professor at LUISS University in Rome presented the role of Global Value Chain as a megatrend in business transformation. She also discussed Knowledge based capital and value creation in global supply chains in order to investigate the impact of investment in intangible capital on GVC participation in manufacturing and services and on gains from participation at the country level. Also, professor Meliciani discussed the Inter-industry linkages and global value chains in business services. The workshop was further continued by Katarina Kovač, who presented the Croatian participation in global value chains with a focus on GVC participation index, decomposition of value added in exports, GVC participation by sector and GVC participation by industry. The last presentation was given by Igor Matanović (HGK) who discussed the strategic project for Support of cluster competitiveness initiative regarding STPA Sustainable food production and processing.

On 17<sup>th</sup> April, Roberto Mavilia opened the workshop with a talk on the Catching Up Along the Global Value Chain. Then, Nebojša Stojčić, from the University of Dubrovnik, presented Regional FDI Spillovers and total factor productivity of firms in new EU member states, followed by Irena Đokić, from the Institute of Economics, Zagreb, who presented a research project on the Spatial-economic aspects of revitalization and reindustrialisation of the City of Vukovar. After the first round of presentations, the round table “Local value chain meets Global Value Chain” with Irena Đokić, Andrea August (the representative of the Agency for Competitiveness and Investments), Nebojša Stojčić and Roberto Mavilia provided an opportunity to discuss the benefits of including locally produced products and services in global value chains.

The main theme of the round table focused on how local value chains, i.e. firms that are included in them, can get involved in global value chains. Previously mentioned study on revitalisation and reindustrialization in Vukovar, presented by Irena Đokić served as an introductory topic of discussion. The key message of the round table participants is that there has to be a vision that will include the issues of local and global value chains and that

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it should be primarily initiated by the local community, where such local chains are placed. The next important message refers to an existence of the idea about the fields (economic activities) of such integrations – is it about the new economic activities or industries that dominated in the past? One of the conclusions is that new industries and new areas of creation of competitive advantages have to be taken into consideration, and that is now possible to create/generate a competitive advantage on industries that died 20 and more years ago. The programmes should be directed towards various measures of fiscal support, towards technology development as well as programme promoting and stimulating entrepreneurship in such areas.

Beside the programmes and other strategic framework necessary to achieve any success in participation in global value chains, another important recommendation for involvement of local value chains stakeholders in global value chains is lobbying, focused on activities and programmes that can contribute to better participation in global value chains, as well as networking with persons that can contribute to development of these areas. The most desirable persons are those who used to live in these areas. Tajana Barbić closed the morning session. The presentation was focused on a project Study on Digital Transformation of SEE selected countries - Potential for Digital Transformation in the Western Balkans.

In the afternoon, Nebojša Stojčić presented the Microeconomic effects of digital transformation in Western Balkans countries. Then, Zoran Aralica presented his study on mapping Global Value Chain in Croatia. Finally, Ernest Vlačić discussed the topic of Industry 4.0 and digital transformation as a chance to re-launch EU economy.

In summary, the TW has been very useful and intense. It allowed participants to get to know the state of the art in relation to GVC, Industry 4.0. and their policy issues. Finally, Croatian researchers had the chance to present their own research in front of experts in the field and received useful comments and suggestions on how to bring forward their research in order to write papers that could be published in international journals.

## **Participants' assessments**

The participants mostly appreciated the first day lectures about GVC since it was an opportunity to listen high profiled EU experts in this field. Most of the participants were grateful about the choice of topics in the second day. The presentations about GVC were combined with the topics such as Industry 4.0 and digital transformation. Several participants pointed out that the round table was quite interesting since it included experts from various areas with the aim to speak about GVC and how to implement this concept within less developed regions in Croatia.

## **Subcontracting**

For the workshop on Global Value Chains, ICRIOS Bocconi University decided to use some external experts in order to broaden the points of view discussed during the workshop.

A call was issued on January 30<sup>th</sup>, 2018 and was open for 38 days. The call was published on the Bocconi University website ([www.unibocconi.eu](http://www.unibocconi.eu)). The call was also published on EURAXESS and 4 candidates applied. An internal committee was selected and all the documents (CVs, publications etc.) were examined by the committee.

3 candidates were admitted to the interview phase and finally accepted as subcontractors after successfully passing the interview phase. After a meeting via Skype, the consortium partners agreed to pay each subcontractor 1500 euros (plus obligatory employer charges)

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The subcontractors were:

Fabio Landini (Parma University)

Nebojsa Stojcic (University of Dubrovnik)

Valentina Meliciani (LUISS University)

The subcontractors were presented to the other members of the consortium for agreement. This meeting was documented and formally approved by all the partners on April 12<sup>th</sup>, 2018. EC project officer approved the experts.