| APPROVED                           |    |
|------------------------------------|----|
| by Order No.                       |    |
| of 2014                            |    |
| of the Minister of Education an    | nd |
| Science and the Minister of Econon | ny |
| of the Republic of Lithuania       |    |

ACTION PLAN OF THE PRIORITY "TECHNOLOGIES AND PROCESSES FOR THE DEVELOPMENT AND IMPLEMENTATION OF BREAKTHROUGH INNOVATIONS" OF THE PRIORITY AREA OF RESEARCH AND ENVIRONMENTAL (SOCIO-CULTURAL) DEVELOPMENT AND INNOVATION (SMART SPECIALIZATION) "INCLUSIVE AND CREATIVE SOCIETY"

### CHAPTER I GENERAL PROVISIONS

- 1. The action plan of the priority "Technologies and Processes for the Development and Implementation of Breakthrough Innovations" of the priority area of research and environmental (socio-cultural) development and innovation (smart specialization) "Inclusive and Creative Society" (hereinafter the Priority RDI development area) (hereinafter the Action Plan) was drawn up in the implementation of the Implementation Programme of Priority Areas of Research and Experimental (Socio-cultural) Development and Innovation (Smart Specialization) and their Priorities approved by Order No. 411 of the Government of the Republic of Lithuania of 30 April 2014 On the Approval of the Programme for the Implementation of Priority Areas of Research and Experimental (Socio-Cultural) Development and Innovation (Smart Specialization) and Their Priorities (hereinafter the Programme).
- 2. The Action Plan was drawn up for establishing the provisions of the implementation of the Priority "Technologies and Processes for the Development and Implementation of Breakthrough Innovations" (hereinafter the Priority) of the Priority RDI development area "Inclusive and Creative Society".
  - 3. The Action Plan shall be implemented in 2015–2020.
  - 4. Concepts used in the Action Plan shall bear the following meanings:
- 4.1. **Design** shall mean a creative process dealing with social, cultural and economic problems, connecting creativity, technologies and management, the result thereof is a product or service. Design includes **visual communication design** (packaging design, book design, interactive design, font design, illustration design, branding and labelling design, advertising design, publishing design, etc.,) and **product design** (furniture design, industrial design, fashion and textile design, transport design, interior design, etc.).
- 4.2. **Audio-visual media** shall mean measures, works, programmes and processes created combining audio and video technologies and perceived and/or interpreted by hearing and/or visually. Audio-visual media include film sector (including the creation thereof, development of infrastructure and film heritage protection), media competences and literacy, video games, audio-visual services, on-line, digital and interactive content, etc.
- 4.3. **Complex audio-visual works** shall mean works identified as such by member states based on predefined criteria, when schemes are created or aid is provided; these can be films, the only original version whereof is released in the language of a Member State having a small territory, population or linguistic area, also, short films, first or second films of beginner film directors, documentary films, low-budget or commercially complex works;
- 4.4. **Social technologies** shall mean new or substantially improved products, services or processes creating social interaction (such as social networks, blogs, social media, etc.), process and

organizational innovation with the help of information and communication as well as other technologies and encouraging the creation and growth of innovative enterprises and social business.

- 4.5. **Organizational innovations** shall mean the application of a new or substantially improved organizational method in business practice, organization of jobs or areas of external relations, except for changes based on organizational methods already used in a company, changes in a management strategy, mergers and acquisitions, ceasing to use processes, simple change or increase of capital, changes related solely to factory price development, regular seasonal and other cyclical changes, trading in new or significantly improved products;
- 4.6. **Process innovations** shall mean the implementation of a new or significantly improved method of production or presentation (including important technology, equipment or software amendments), except for slight changes or improvements, increase of production or service capacities by installing additional production or logistics systems very similar to the already used ones, ceasing to apply processes, simple change or increase of capital, changes related solely to factory price development, customization, localization, regular seasonal and other cyclical changes, trading in new or significantly improved products;
- 4.7. **Social innovation** shall mean adaptation of new ideas (goods, services, methods) for a more efficient meeting of social needs and/or for creating new social relations, partnerships or networks. According to the Guide to Social Innovation (2013, DG Regional and Urban Policy, European Commission), social innovation includes nine problem groups: social inclusion, migration, urban renewal, social economy, microfinance, health and aging, incubation, workplace innovation and regional strategy.
- 4.8. **Innovative enterprise** shall mean a company: a) which, using an expert assessment as a tool, can prove that it will create in the nearest future products, services or processes, which will be technologically new or substantially improved as compared to the newest products of the sector it is operating in, which will be related to technological or industrial failure risk, or b) the expenses of research and development whereof accounted for at least 10 % of its total operating expenses at least one year out of three till the provision of help, or, if it is a new business company without any financial history, based on the audit of the current fiscal period approved by an external audit;
- 4.9. **Social business** shall mean a business model, which, utilizing the market mechanism, links the pursuit of profit with social goals and priorities, follows provisions of the socially responsible business and public and private sector partnership and applies social innovation.
  - 5. Other concepts used in the Action Plan shall correspond to concepts used in the Programme.

### CHAPTER II DESCRIPTION OF THE CURRENT SITUATION

6. Creativity is a universal competence, skill, which each individual needs to develop. Creative activities create some unique results, which play an increasingly important role in the twenty-first century knowledge-based economy, thus more and more attention is paid to a new rapidly developing sector - cultural and creative industries (CCI) - throughout the world. The main participant in the CCI sector creating the greatest value added is human capital and intellectual activities, thus the creative sector is significantly different from other sectors of economy and has features positively affecting social and economic climate. Creativity is generally considered a driving force of a sustainable, smart and balanced growth, while culture also plays a fundamental role in the creation of information and knowledge society.

Cultural and creative industries (CCI) (according to Article 2 of general provisions of the Regulation (EU) No. 1295/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Creative Europe Programme (2014 to 2020) – cultural and creative sectors (CCS)) mean economic activities creating tangible or artistic services, which embody artistic, cultural, symbol content and economic value. Cultural and creative industries include creativity and intellectual capital as primary creative resources of goods and services. CCI are cross-sectoral, they

are at an intersection of service and industrial sectors. "Tera Consultants" and the Regulation ((EU) No. 1295/2013) of the European Parliament and of the Council distinguish the basic cultural and creative industries, which include architecture, archives, libraries and museums, artistic crafts, audiovisual works (including film, television, video games and multimedia), tangible and intangible cultural heritage, design, festivals, music, literature, performing arts, publishing, radio and visual arts.

In addition to the basic cultural and creative industries, the following can be distinguished:

- CCI complementing industries include products and equipment (including production and wholesale and retail trade), the aim whereof is to facilitate the creation, production and consumption of cultural and creative products: audio-video players, radio equipment, TVs, video game equipment, computers, music instruments, photographic and cinematographic instruments, etc.
- *CCI supporting industries* include the dissemination and sale, broadcasting, communication (i.e. internet, telephone communication, transportation, etc.) of the cultural and creative products.

CCI have a huge potential for ensuring economic growth, increase of new jobs, and improvement of socio-cultural environment. Creativity and culture promote the use of content and develop cultural diversity. Moreover, CCI help countries improve international competitiveness, since they allow for exported products to create a greater value added, create a new meaning of consumption.

- 7. Private business and non-governmental organizations actively participate in the creation and presentation of proposals with regard to the improvement of the provision of essentially new or improved products. A particularly great potential has been accumulated in the sectors of computer programming, consultancy and information services, creative industries and other knowledge and technology change-intensive sectors. However, there is a lack of continuous and systematic creation of innovation; significant breakthrough could not be reached (in the wider European context).
- 8. The potential of social sciences and humanities (especially economics and management, sociology, law, psychology, political science, etc.) as well as arts, which should contribute to the creation of technologies and technologic process, organization and social innovation, is currently under-exploited, even though the object of these particular sciences is knowledge management and organizational learning, scanning, evaluation and identification of opportunities, value creation, relationships with customers and users, organization of activities and business, market formation and development, structural changes in the economy, etc.
- 9. Potential of Lithuanian science and education institutions in the area of cultural and creative industries is relatively high. The scope of preparing specialists in this field has been increasing each year. Research centres, the research and experimental (socio-cultural) development (hereinafter R&D) infrastructure held wherein can be used for activities relevant for the implementation of the Priority, are being set up. Study Centres for Audio-Visual and Information Technology and Music Innovation, Design Innovation Centre of Vilnius Academy of Art, which has art and design laboratories in Vilnius, Kaunas, Telšiai and Klaipėda, also, Cultural Industries and Creative Innovation Laboratories conducting R&D activities in Vilnius Gediminas Technical University, infrastructure in Vilnius University enabling to conduct research in the areas of heritage and restoration as well as audio-visual media can be distinguished as such research centres.
- 9. There are about 50 companies directly participating in the creation and implementation of solutions for breakthrough innovation and solutions for R&D and innovation management. Information technology sector can be relevant for the creation of these technologies. About 190 companies provided the services of data processing, internet servers and other information services in 2012. About EUR 47.4 million of value added was created and about 2 thousand employees were employed in 2012. Legal sector provides the services of intellectual property protection and management, which has about 3 thousand companies operating therein. It employs about 6 thousand people and about EUR 120.2 million in value added was created therein. Management advice service

<sup>&</sup>lt;sup>[2]</sup> The Economic Contribution of the Creative Industries to EU GDP and Employment (Evaluation, 2008-2011), 2014, TERA Consultants, 6.

is also relevant here, which had about 2 thousand companies operating therein. It employed about 7 thousand people and had about EUR 57.9 million in value added created therein.

- 10. The scope of investments into innovative and business companies accounted for about EUR 160.9 million during the 2007-2013 European Union structural fund period, however, not all of these funds are directly related to the planned priority. The creation and implementation of innovation is closely related to changes of knowledge and technologies in a certain R&D area and industrial sector, thus it is hard to clearly separate the purpose of investment.
- 11. Currently, there are 133 social companies operating in Lithuania, of which 63 are social enterprises of people with disabilities. There are a total of 4 762 targeted group employees working in social enterprises. During Half 1 of 2014, 1 265 targeted group persons were newly employed in social enterprises. The impact of activities of operating social enterprises on the creation of jobs and solving social exclusion problems is poor, but it requires significant public expenditure state support for social enterprises amounted to EUR 12.7 million in 2013 and it was EUR 7.3 million in Half 1 of 2014.
- 12. The potential of non-governmental organizations promoting social business is untapped in Lithuania. There are about 15 thousand non-governmental organizations (hereinafter NGO) operating in the country. The sale of NGO services must be encouraged and business models must be applied seeking for a defined social goal, also, partnership with business for the public interest must be developed. The synergy of NGO and small business would give an impetus for the development of social business and would be beneficial for both companies and the public.
- 13. During the 2007–2013 European Union structural fund period, EUR 48.7 million from the EU and national funds was allocated for the CCI sector, of which EUR 6.1 million (12.5 percent) for R&D activities. The Ministry of Education and Science allocated EUR 2.7 million for funding of the National Complex Programme "Lithuania's Creative and Cultural Industries", on the basis whereof 3 projects were implemented. The scope of the product created by CCI did not incur any decline in 2001-2011 and survived without any major fluctuations.
- 14. There are about 2 percent of employees working in the CCI sector, which create more than 5 percent of value added; creative industry products and services account for about 5 percent of the country's export (the majority of CCI sector goods and services are exported to the United Kingdom, USA and France, also Moldova, Luxembourg, Russia, etc.).
- 15. 12 art incubators are operating or establishing in Lithuania, which are located throughout the country; Užupis Creative Cluster, Vilnius Film Cluster, Nebula and other clusters are established in Vilnius. Representations from international CCI sectors are being set up in Lithuania.
- 16. In order to implement the Priority, it is useful to strengthen and concentrate R&D and innovation resources in such thematic R&D and innovation fields as innovation management, entrepreneurship, strategic management, organizational psychology, organizational sociology, marketing and public relations, finance and investment management, audio-visual media, graphic and industrial design and in other related disciplines of social sciences, humanities and arts. Competences of information and communication technologies and electronics, new materials and smart production are also important for the Priority. In the implementation of the Priority, communication with technological business and industrial sectors is particularly important so that technologies, products and services created in the Priority enhance the competitiveness thereof. Also, inter-sectorial and inter-directional cooperation of projects is to be promoted. In order to enhance human resource capabilities in these areas, highly skilled specialists must be prepared in the areas of innovation and intellectual property management, organizational psychology and sociology, marketing and public relations, new media, language technologies, finance and economy, audio-visual media and graphic and industrial design. It is very important to ensure a possibility for students to engage in internship activities in business companies and organizations for at least six months. International cooperation networks with science and business authorities leading in the area in other countries should be sought for and encouraged.

## CONFORMITY OF THE ACTION PLAN TO THE PROGRAMME AND OTHER STRATEGIC LEGAL ACTS

- 17. The Action Plan contributes to the implementation of the strategic goal and goals provided for in subparagraphs 19.1 and 19.2 of the Programme as well as of the task established in subparagraph 20.6 to promote R&D and innovation activities, which would allow for the improvement of demographic situation, gradual development of regions, poverty reduction, illegal employment, enhancement of social cohesion, increase of interaction between skills and labour market needs and reduce the gap in between them, develop talents and creative potential, efficiently manage CCI resources, non-technological innovation for the promotion of public and economic progress, increase public sector innovation and management efficiency.
  - 18. Actions of the Action Plan include the following:
  - 18.1. to create and introduce new technologies, products process and methods in the market;
- 18.2. to promote the creation of knowledge-intensive business, the development of enterprises with huge potential;
- 18.3. to encourage clusterization, integration into international value creation networks and investments into R&D and innovation;
- 18.4. to promote cooperation between research and business, transfer of knowledge and technologies with the aim to commercialize R&D and innovation results;
- 18.5. to enhance the potential of science and education institutions and their abilities in the creation and commercialization of knowledge, also, to prepare specialists.
- 19. In the implementation of the Action Plan, the intension is to contribute to changes, which are expected in the implementation of the National Progress Strategy *Lithuania 2030* approved by Resolution No. XI-2015 of the Seimas of the Republic of Lithuania *On the Approval of the National Progress Strategy Lithuania 2030* of 15 May 2012. Results created during the implementation of the Priority will mostly contribute to the formation of one of values important to the progress, which is creativity; the creativity aspect will also be important in the formation of all three segments of smart Lithuania smart society, smart economy and smart management.

### CHAPTER IV STAGES OF THE IMPLEMENTATION OF THE PRIORITY

- 20. Measures for the implementation of the Priority have been selected pursuant to the Lithuanian Innovation Development Programme approved by Resolution No. 1281 of the Government of the Republic of Lithuania of 18 December 2013, the National Programme for the Development of Studies, Research and Experimental (Socio-Cultural) Development for 2013-2020 approved by Resolution No. 1494 of the Government of the Republic of Lithuania of 5 December 2012 and the implementing legislation thereof.
- 21. A set of study, R&D and innovation policy measures necessary for the implementation of the Priority has been identified in light of the report *Priority Implementation Signposts* drawn up on 21 February 2014 by international group of independent experts. Pursuant to this report, the following Priority implementation stages can be distinguished:
- 21.1. the stage of generation of scientific potential critical mass includes activities related to the creation of appropriate environment for the search for new ideas and solutions, development of technologies and prototypes and the readiness to carry out these activities;
- 21.2. the search for new ideas and solutions includes fundamental research of general and targeted nature necessary for the implementation of the Priority;
- 21.3. the stage of the creation of technologies and their prototypes includes industrial research and experimental development activities necessary for the implementation of the Priority;
- 21.4. the stage of introduction into the market includes activities related to introducing new products into the market;

- 21.5. the stage of generating critical mass of business potential includes activities related to the transmission and dissemination of knowledge and innovation, and the use thereof at large.
- 22. Actions established in subparagraphs 18.1–18.5 of the Action Plan are implemented by executing the measures set forth in Annex 1 to the Action Plan.
- 23. Annex 2 to the Action Plan provides for a set of education and RDI policy measures relevant in each Priority implementation stage.
- 24. Annex 1 to the Action Plan establishes actions and measures implemented given the set of education and RDI policy measures presented in Annex 2.

### CHAPTER V THEMATIC SPECIFICS OF THE PRIORITY

- 25. The implementation of the Action Plan is aimed at:
- 25.1. exploring and developing design and audio-visual media technologies, which create a value added to other businesses (B2B) and/or the end user, increase the competitiveness of a product and service in the Lithuanian and export market;
- 25.2. exploring and developing social technologies, which encourage the development and growth of innovative enterprises and social business encouraging social and organizational innovation with the help of information and communication as well as other technologies. Social technologies include:
- 25.2.1. hybrid financing and financial inclusion technologies; hybrid financing technologies combine the advantages of share capital and borrowing. Financial inclusion technologies ensure the availability of financial services at a reasonable price for low-income part of society.
- 25.2.2. high value added cooperation (for example, associative, cluster, mutual help, volunteering, etc.,) technologies;
  - 25.2.3. hybrid market creation technologies;
  - 25.2.4. production process and logistics slimming technologies;
- 25.2.5. technologies for determining, evaluating and interpreting noncompliance of innovation enterprise and social business organizational elements and processes with approved standards;
  - 25.2.6. technologies for rapid growth of innovative enterprises and social business;
- 26. Successful execution of activities mentioned in subparagraphs 25.1 and 21.2 is inseparable from R&D activities conducted by public and private sector institutions.
- 27. An important role in the implementation of the Priority is played by joint initiatives for educational, research and experimental (socio-cultural) development and innovation (hereinafter -joint initiatives), on the basis whereof problems relevant to sectors of economy are planned to be solved conducting R&D activities on topics relevant to the sectors of economy and hoping for the inclusion of private sector entities in the realization of R&D activity results. Given the activities listed in subparagraphs 25.1 and 25.2 of the Action Plan, the implementation of joint initiatives seeks that executed R&D activities would allow the following:
- 27.1. exploring the possibilities of technologies and systems of rapid prototyping intended for the creation of design products and services;
- 27.2. exploring the possibilities of the creation of simulation platforms, new design product, services and creative ideas;
- 27.3. exploring the possibilities of audio-visual and sensor signal recognition and transformation technologies for the development of new creative products;
- 27.4. exploring social technologies and the impact thereof on social, process and organizational innovation and the creation of innovative enterprises and social businesses;
- 27.5. exploring social innovation and the impact thereof on solving social challenges as indicated in the "Social Innovation Guide 2013";
- 27.6. exploring organizational innovation and the impact thereof on the activities of innovative enterprises and social business as well as their ability to adapt to changing environmental conditions;

- 28. The implementation of joint initiatives seeks that activities listed in subparagraphs 27.1–27.7 of the Action Plan would allow the following:
- 28.1. introducing rapid prototyping technologies and systems intended for the creation of design products and services in the market;
- 28.2. introducing simulation platforms for the performance of testing and evaluation of new design products, services and creative ideas;
- 28.3. introducing audio-visual and sensory technologies in the market for the development of creative products and services;
- 28.4. introducing into the market technology transmission and commercialization models, services and technologies aimed at creating and exporting new high value added products and services;
- 28.5. introducing and developing models, services and technologies for the development and management of new innovative enterprises aimed at a faster payback and more rapid growth of innovative enterprises;
  - 28.6. implementing and developing high value added cooperation technologies;
- 28.7. implementing and developing social innovation ensuring the solution of social challenges relevant for Lithuania;
- 28.8. implementing and developing new or substantially improved methods of production ensuring the innovation, efficiency and development of production;
- 28.9. implementing and developing new or substantially improved organizational methods ensuring the development of innovative enterprises and social business;
- 29. Subparagraphs 27.1–27.7 of the Action Plan can be amended by crossing out or supplementing the planned activities upon the proposal of the coordination group of the research and experimental (socio-cultural) development and innovation priority implementation formed by Order No. V-576/4-409 of the Minister of Education and Science and the Minister of Economy of 20 June 2014 (hereinafter the Coordination Group), given the data collected at the time of facilitation, ongoing analysis and evaluation or other reasonable data and proposals.

### CHAPTER VI IMPLEMENTATION OF THE ACTION PLAN

- 30. Possible sources of the implementation of the Action Plan:
- 30.1. state budget funds of the Republic of Lithuania:
- 30.1.1. funds for measures of the 1<sup>st</sup> priority "Promoting Research, Experimental Development and Innovation" of the European Union structural fund action programme 2014-2020 (hereinafter the Action Programme), 3<sup>rd</sup> priority of the Action Programme "Promoting Competitiveness of Small and Medium Enterprises" and 9<sup>th</sup> priority of the Action Programme "Public Education and Increase of Human Resource Potential";
  - 30.1.2. Lithuanian state budget funds (excluding the European Union structural funds);
  - 30.2. funds of science and education institutions;
  - 30.3. funds of private legal entities;
- 30.4. funds of the European Union Research and Innovation Programme *Horizon 2020* and other international programmes.
- 31. A part of funds for measures of priority 1 and priority 9 of the Action Programme are intended for direct support of activities necessary for the implementation of the Priority, thus table presented in Annex 1 provides for a preliminary amount, which is planned to be used for the implementation of the Priority depending on need.
- 32. A part of funds for measures of priority 1 of the Action Programme unattributed to any specific priorities of priority areas of research and experimental (socio-cultural) development and innovation (smart specialization) (hereinafter RDI priorities), the results of the implementation thereof can contribute to the implementation of all or the majority of RDI priorities. These measures are marked in the table presented in Annex 1 to the Action Plan with an asterisk.

- 33. Measures implemented by a part of priority 9 of the Action Programme and the Lithuanian state budget funds are relevant to the entire R&D and innovation system and are not attributed to any specific RDI priorities, but their implementation results can also contribute to the implementation of the Priority. These measures are marked in the table presented in Annex 1 to the Action Plan with two asterisks.
- 34. Measures of priority 3 of the Action Programme are relevant to the entire system of improving business conditions and assistance for business, but they will indirectly contribute to the implementation of the Action Plan, mainly allowing private sector entities to introduce new products in the market and generating critical business potential mass.

In the implementation of measures of priority 3 of the Action Programme, the plan is to support such activities relevant to the implementation of the Priority as the creation of the design of produce and/or products, installation of high-impact technologies in traditional industries, presentation of produce in international exhibitions and/or fairs, certification of the products and services planned for export, increase of new capacities of production and service provision, development of infrastructure of business incubators, membership in international networks (platforms), increasing awareness of new products and services, and business start-up advice.

- 35. The plan is to have funds of science and education institutions attracted by supporting activities related to the creation and renewal of education and RDI infrastructure necessary for the implementation of the Priority (by implementing infrastructure projects, co-funding of science and education institutions is expected). These funds are included in the graph "State budget funds and other funds" in the table presented in Annex 1 to the Action Plan.
- 36. The plan is to have funds of private legal entities attracted by implementing measures, projects executed on the basis whereof are planned to be co-funded by the state; businesses will have to cover a part of the project value using their own funds. These funds are included in the graph "Private sector funds" in the table presented in Annex 1 to the Action Plan.
- 37. The Priority may be partially implemented by participating in the European Union Research and Innovation Programme *Horizon 2020* and other international programmes. Funds attracted participating in international programmes are not indicated in the table presented in Annex 1 to the Action Plan.
- 38. The implementation of the Action Plan seeks for quantitative and qualitative results in line with the evaluation criteria set in Annex 1.
- 39. Deadlines for publishing calls for applications for measures implementing the actions of the Action Plan or for concluding project lists will be planned for in accordance with the plans for publishing calls for applications and concluding project lists prepared by ministries, as provided for in administration rules of 2014-2020 EU fund investment action programmes approved by Resolution No. 1090 of the Government of the Republic of Lithuania of 3 October 2014 *On the Approval of Administration Rules of 2014-2020 EU Fund Investment Action Programmes*.
- 40. Development of the priority areas of research and experimental (socio-cultural) development and innovation (smart specialization) and the implementation of priorities thereof are coordinated by the Coordination Group.
- 41. The Programme and RDI priority action plans are implemented by promoting and supporting the interaction and cooperation of business entities and science and education institutions. The Agency for Science, Innovation and Technology encourages the cooperation between business entities and science and education institutions in the procedure prescribed by the by the Minister of Education and Science and the Minister of Economy. The implementation of the Programme is observed by ongoing analysis and evaluation of the implementation of RDI priority action plans. Research and Higher Education Monitoring and Education Centre conducts the monitoring and evaluation of the implementation of the Programme in the procedure prescribed by the Minister of Education and Science and the Minister of Economy.
- 42. Infrastructure created and equipment purchased during projects planned to be funded from EU funds or other sources and executed on the basis of education and RDI policy measures set in Annex 1 to the Action Plan shall not duplicate equipment currently possessed by science and

education institutions or other public sector entities, except for cases when the capacity of the existing equipment is not enough for ensuring the implementation of the Priority.

43. A list of measures presented in Annex 1 to the Action Plan may be amended in light of the results of the interim evaluation of the Priority implementation planned in 2018, also having assessed the needs of potential executors of the measures.

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Annex 1 to the Action Plan of the Priority "Technologies and Processes for the Development and Implementation of Breakthrough Innovations" of the priority area of research and environmental (sociocultural) development and innovation (smart specialization) "Inclusive and Creative Society"

# ACTIONS AND MEASURES OF ACTION PLANS, PRELIMINARY NEED FOR FUNDS FOR THE IMPLEMENTATION THEREOF AND EVALUATION CRITERIA

| Actions and measures   | • /                                      |                                       | Institution in charge      | Evaluation criteria of actions and measures | values   |      |      |
|--|--|---------------------------------------|----------------------------|---|--|------|------|
|  | European<br>Union<br>structural<br>funds | State<br>budget<br>and other<br>funds | Private<br>sector<br>funds |   |  | 2018 | 2023 |
| Action 1. To create and introduce new technologies, products, processes and methods into the market:   |  |                                       |                            |   | Created prototypes (concepts) of products, services or processes within 3 years after the implementation of the project (pcs.) | 8    | 17   |
| Measure 1.1. Joint science and business projects contributing to the implementation of smart specialization  | 2 317                                    | -                                     | -                          | Ministry of<br>Education<br>and<br>Science  | Number of projects jointly executed by business, science and education institutions (pcs.)                                     | 8    | 15   |
|  | 935                                      | -                                     | 846                        | Ministry of                                 | Number of certified products (pcs.)  | 1    | 3    |
| Measure 1.2. Support for the creation or development of the company's RDI infrastructure and implementation of RDI activities ("Intelektas")  Measure 1.3. Support for company RDI providing innovation vouchers ("Inovaciniai čekiai")  Measure 1.4. Support for patenting inventions and design ("InoPatent LT")  Measure 1.5. Support for precertification of new products and technologies and for conducting tests in laboratories under actual | 7 323                                    | -                                     | 6 702                      | Economy                                     |  |      |      |
| conditions ("Inosertifikavimas")  Action 2. To encourage the creation of   | 1 303                                    | -                                     | 145                        |   | New companies having received investments  | 1    | 2    |
| knowledge-intensive business and development of companies having large potential:  |  |                                       |                            |   | within 3 years after the implementation of the project (pcs.)  |      |      |

| Measure 2.1. Support for the provision of innovation consulting services ("Inogeb LT")  Measure 2.2. Support to companies engaged in RDI by financial tools ("Technostartas LT", "Koinvest LT")  |         |   |         |                          | Number of companies receiving financial support in some other form than a subsidy (pcs.)  | 1          | 3          |
|--|---------|---|---------|--------------------------|---|------------|------------|
| Action 3. To promote clusterization, integration into international value creation networks and investments in RDI:  |         |   |         |                          | New cluster members within 3 years from the start of the implementation of the project (persons)  | 5          | 11         |
|  |         |   |         |                          | Attracted foreign investments into RDI area<br>by areas of smart specialization within 3<br>years after the implementation of the project<br>(thousand EUR) | 42<br>353* | 95<br>295* |
| Measure 3.1. Support for cluster operation ("InoKlaster LT")  Measure 3.2. Support for participating in international RDI initiatives ("InoConect LT")  Measure 3.3. Support for investments into a cluster ("InoKlaster LT+")  Measure 3.4. Support for common use R&D infrastructure ("Technologinių centrų infrastruktūra") | 7 370   | - | 2 785   |                          | Number of legally binding agreements with international partners (pcs.)   | 4          | 10         |
| Measure 3.5. Support for attracting direct foreign investments in RDI area ("Smartinvest LT")  | 5 792*  | - | -       |                          |   |            |            |
| Measure 3.6. Support for direct foreign investments in RDI area ("SmartInvest LT+")  | 28 962* | - | 32 011* |                          |   |            |            |
| Action 4. To promote science and business cooperation, transfer of knowledge and   |         |   |         | Ministry of<br>Education | Business R&D orders executed by science and education institutions (thousand EUR)   | 100        | 300        |
| technologies in order to commercialize R&D results:  |         |   |         | and<br>Science           | Revenues of science and education institutions from intellectual activity results (thousand EUR)  | 150        | 420        |
| Measure 4.1. Creation of the material base intended for the implementation of joint science and business projects and the  | 8 690*  | - | -       |                          | Patent applications and/or applications to EFSA (pcs.)  | 4          | 12         |
| development thereof in science and education institutions (creation and development of infrastructure of centres of excellence)  |         |   |         |                          | Doctoral studies conducted together with business entities (number of doctoral students)  | 6          | 16         |
| Measure 4.2. Support for the implementation of R&D activities executed by centres of excellence  | 11 580* | - | -       |                          |   |            |            |

| Measure 4.3. Implementation of market-<br>oriented science and business projects through  | 93      | -        | - |   |     |     |
|---|---------|----------|---|---|-----|-----|
| cross-border network  Measure 4.4. Promotion of commercialization of R&D activity results in science and  | 523     | 504**    | - |   |     |     |
| education institutions  Action 5. To enhance the potential of science and education institutions and their abilities to create and commercialize knowledge and to prepare specialists:                                  |         |          |   | External users from foreign science and education institutions, Lithuanian and foreign business companies having used the renewed open access research infrastructure (funds received from these users (thousand EUR))  Number of publications in frequently cited periodicals (pcs.) | 120 | 310 |
| Measure 5.1. Renewal of RDI and education infrastructure in the areas of smart specialization   | 52 132* | -        | - | Number of researchers working in improved research infrastructure base (full-time equivalents)  | 30  | 70  |
| Measure 5.2. Creation and development of the European research infrastructures and Lithuania's integration into the European research infrastructures pursuant to Lithuanian research infrastructure signpost and ESFRI | 26 066* | 1008**   | - | Number of spin-offs created in science and education institutions (units)   | 5   | 12  |
| Measure 5.3. Renewal of equipment used in open-access centres by areas of smart specialization  | 26 066* | -        | - |   |     |     |
| Measure 5.4. R&D activities conducted by the Lithuanian science and education institutions  | 594     | -        | - |   |     |     |
| Measure 5.5. Subscription of databases necessary for RDI activities   | 28 960* | -        | - |   |     |     |
| Measure 5.6. Creation of infrastructure of centres of excellence and parallel laboratories  | 26 640* | 504**    | - |   |     |     |
| Measure 5.7. Development of information infrastructure for science and education (LITNET)   | 4 340*  | -        | - |   |     |     |
| Measure 5.8. Attraction of foreign scientists and R&D activities  | 14 481* | -        | - |   |     |     |
| Measure 5.9. Promoting activities of innovation and technology transmission centres of science and education institutions   | 14 480* | -        | - |   |     |     |
| Measure 5.10. Ensurance of the doctoral study process; doctoral studies, trips, scholarship, R&D, transfer, funds for visits (including foreign doctoral students)  | 644     | 62 154** | - |   |     |     |

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<sup>\*</sup> Funds unattributed to specific priority area of research and experimental (socio-cultural) development and innovation (smart specialization), their implementation results can contribute to the implementation of all or the majority of RDI priorities.

\*\* Funds for measures, which are relevant to the entire RDI system and are unattributed to specific RDI priorities, their implementation results will also contribute to the implementation

of the Priority.

Annex 2 to the Action Plan of the Priority "Technologies and Processes for the Development and Implementation of Breakthrough Innovations" of the priority area of research and environmental (sociocultural) development and innovation (smart specialization) "Inclusive and Creative Society"

### A SET OF EDUCATION AND RDI POLICY MEASURES

| Generation of science potential critical  | Search for new ideas and   | Creation of                         | Introduction             | Generation of                    |  |
|---|--|-------------------------------------|--------------------------|----------------------------------|--|
| mass  | their solutions  | technologies and their              | into the market          | business potential               |  |
|   |  | prototypes                          |                          | critical mass                    |  |
| Measure 5.1. Renewal of RDI and education   | Measure 1.1. Joint science and bu  | siness projects contributing to the | implementation of        | Measure 3.1. Support for         |  |
| infrastructure in the areas of smart specialization   | smart specialization   |                                     |                          | cluster operation                |  |
| 7000  | 100  |                                     | Τ                        | ("InoKlaster LT")                |  |
| Measure 5.2. Creation and development of the  | Measure 1.2. Support for the creat   | -                                   |                          | Measure 3.2. Support for         |  |
| European research infrastructures and Lithuania's   | company's RDI infrastructure and   | implementation of RDI               |                          | participating in international   |  |
| integration into the European research infrastructures pursuant to Lithuanian research infrastructure | activities ("Intelektas LT")   |                                     |                          | RDI initiatives ("InoConect LT") |  |
| signpost and ESFRI  |  |                                     |                          |                                  |  |
| Measure 5.3. Renewal of equipment used in open-   | Measure 5.4. R&D activities  | Measure 1.5. Support for precer     |                          | Measure 3.3. Support for         |  |
| access centres by areas of smart specialization   | conducted by Lithuanian  | products and technologies and f     | _                        | investments into a cluster       |  |
|   | science and education  | laboratories under actual conditi   | ons                      | ("InoKlaster LT+")               |  |
|   | institutions   | ("Inosertifikavimas")               |                          |                                  |  |
| Measure 5.5. Subscription of databases necessary for  | Measure 2.1. Support for the prov  | ision of innovation consulting ser  | vices ("Inogeb LT")      |                                  |  |
| RDI activities  | N 22 G   | 1' DDI1 " '1.                       | 1 (// 1                  | ((17. '                          |  |
| Measure 5.6. Creation of infrastructure of centres of   | Measure 2.2. Support to companie   | es engaged in RDI by financial too  | ols ("Technostartas LT", | "Koinvest LT")                   |  |
| excellence and parallel laboratories  | M 246 46   | DOD'C                               | 1                        | 1. (= 22)                        |  |
| Measure 5.7. Development of information   | Measure 3.4. Support for common use R&D infrastructure ("Technologinių centrų infrastruktūra") |                                     |                          |                                  |  |
| infrastructure for science and education (LITNET)   | M 27.0 (C)   | 1:                                  | NI ("C .' . I T          | 722)                             |  |
| Measure 5.9. Promoting activities of innovation and   | Measure 3.5. Support for attracting direct foreign investments in RDI area ("Smartinvest LT")  |                                     |                          |                                  |  |
| technology transmission centres of science and  |  |                                     |                          |                                  |  |
| education institutions  |  |                                     |                          |                                  |  |

| Measure 5.10. Ensurance of the doctoral study process; doctoral studies, trips, scholarship, R&D, transfer, funds for visits (including foreign doctoral students)  | Measure 3.6. Support for direct fo  | reign investments in RDI area ("S  | SmartInvest LT+") |   |  |  |  |
|---|---|--|-------------------|---|--|--|--|
| Measure 5.12. Attraction and reintegration of specialists   | Measure 4.4. Promotion of commercialization of R&D activity results in science and education institutions   |  |                   |   |  |  |  |
| Measure 5.14. Promotion of post-doctoral internships  | Measure 5.20. To ensure funding for R&D activities relevant to the solution of top-level problems strategically important to the public and the state as well as economic development   | Measure 1.3. Support for company RDI by providing innovation vouchers ("Inovaciniai čekiai") | -                 | Measure 5.11. Employment of scientists and other researchers in knowledge-intensive enterprises |  |  |  |
| Measure 5.15. Preparation of specialists in smart specialization priority-related study programmes  | Measure 3.2. Support for participal initiatives ("InoConect LT")  |  |                   | -   |  |  |  |
| Measure 5.16. Development of the science popularization system  | Measure 5.13. Student R&D activ   |  |                   |   |  |  |  |
| Measure 5.8. Attracting foreign scientists and R&D activities   |   | Measure 1.4. Support for patenting inventions and design internationally ("InoPatent LT")    |                   |   |  |  |  |
| Measure 5.17. Funding of undergraduate, graduate, integrated and non-degree studies   | Measure 5.17. Funding of undergraduate, graduate, integrated and non-degree   | Measure 4.3. Implementation of market-oriented scene and business projects within            |                   |   |  |  |  |
| Measure 5.18. Support for mobility of Lithuanian and foreign students and teachers  Measure 5.19. Practical trainings for scientists and other researchers, participation of scientists and other researchers in targeted events of international programmes, participation of Lithuanian researchers in targeted meetings for the preparation of project applications, participation of representatives from Lithuania in the European Union and other international working groups, committees, commissions, related to research and experimental (socio-cultural) development. / Encouragement of participation in <i>H2020</i> Measure 5.21: To support cross-sectoral cooperation in R&D area  Measure 5.22. To allow researchers to use digital scientific data resources  Measure 4.1. Creation of the material base intended for the implementation of joint science and business projects and the development thereof in science and | studies Measure 5.18. Support for mobility of Lithuanian and foreign students and teachers Measure 5.19. Practical trainings for scientists and other researchers, participation of scientists and other researchers in targeted events of international programmes, participation of Lithuanian researchers in targeted meetings for the preparation of project applications, participation of representatives from Lithuania in the European Union and other international working groups, committees, commissions, related to research and experimental (socio-cultural) | -  |                   |   |  |  |  |

| education institutions (creation and development of infrastructure of centres of excellence) | development. / Encouragement of participation in <i>H2020</i> |  |  |
|--|---|--|--|
| Measure 4.2. Support for the implementation of RDI   | Measure 5.21: To support cross-                               |  |  |
| activities executed by centres of excellence   | sectoral cooperation in R&D                                   |  |  |
| detivities executed by control of executence   | area  |  |  |
|  | Measure 5.22. To allow  |  |  |
|  | researchers to use digital                                    |  |  |
|  | scientific data resources                                     |  |  |
|  | Measure 4.1. Creation of the                                  |  |  |
|  | material base intended for the                                |  |  |
|  | implementation of joint science                               |  |  |
|  | and business projects and the                                 |  |  |
|  | development thereof in science                                |  |  |
|  | and education institutions                                    |  |  |
|  | (creation and development of                                  |  |  |
|  | infrastructure of centres of                                  |  |  |
|  | excellence)   |  |  |
|  | Measure 4.2. Support for the                                  |  |  |
|  | implementation of RDI   |  |  |
|  | activities executed by centres of                             |  |  |
|  | excellence  |  |  |