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WP3 – Development of Triple-Helix Creative-Traditional Business Partnership Platform

CTCC – CREATIVE TRADITIONAL COMPANIES COOPERATION

Within the framework of the South Baltic Programme 2014–2020 (ERDF part-financed), 3rd Call

Work Package:	**WP3 – DEVELOPMENT OF TRIPLE-HELIX CREATIVE-TRADITIONAL BUSINESS PARTNERSHIP PLATFORM**
WP Leader:	**PP4 RTVIC**
Task 3.10	**Development of Region Study on Creative-Traditional Business Partnership Platform**
Task Leaders:	**PP4**
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MAPPING CREATIVE – TRADITIONAL COMPANIES COOPERATION FOR INNOVATION IN LITHUANIA (KLAIPEDA AND TELŠIAI REGIONS)

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INTRODUCTION

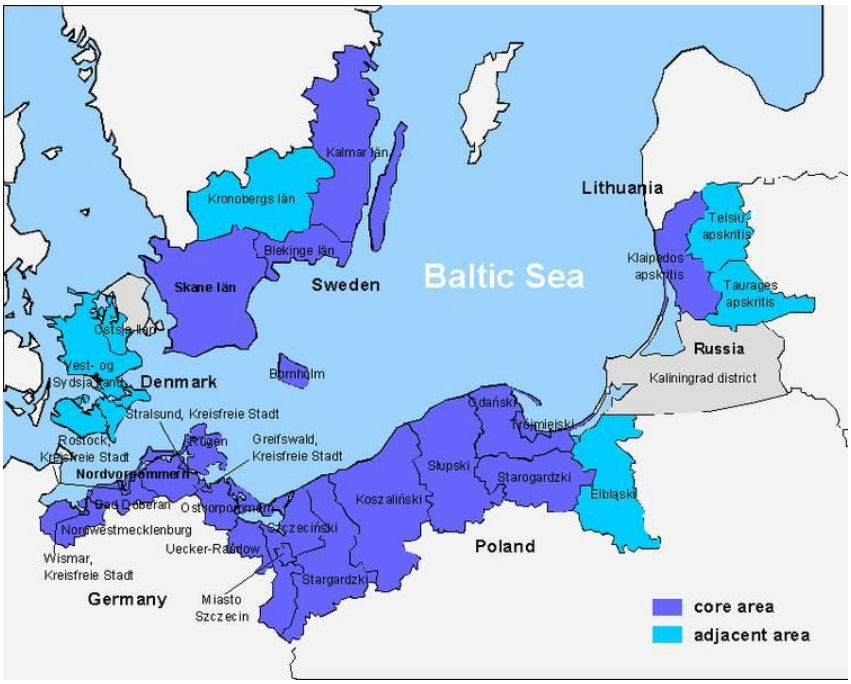
This Studio has been prepared under the project "Creative Traditional Companies Cooperation" (CTCC). CTCC is a non-profit project, part-financed from the European Regional Development Funds within the South Baltic Programme 2014-2020. The aim of the Project is to improve innovation performance of small and medium-sized enterprises (SMEs) through cross-sectoral Creative-Traditional companies' cooperation in South Baltic Sea Region.

10 partners representing local and regional actors from 4 South Baltic Sea Region countries – Germany, Lithuania, Poland and Sweden – are involved in the Project activities (the eligible area of the South Baltic Cross-border Co-operating Programme see in picture No. 1).

The Project partners cover the following administrative units at the NUTS 2 and NUTS 3 levels that fall into the eligible areas of the South Baltic Cross-border Co-operating Programme:

- in Germany – ***Mecklenburg-Vorpommern region*** (DE80) which includes district (Landkreise) of Nordwestmecklenburg (partners: Hochschule Wismar, University of Applied Sciences: Technology, Business and Design, and ATI erc gGmbH education, research and furtherance of cooperations) and district-free city (kreisfreie Stadt) Rostock (partner – Season of Creativity e. V.);
- in Lithuania – counties of ***Klaipėda*** (LT003) (partner – Klaipeda Science and Technology Park) and ***Telšiai*** (LT008) (partners: Public institution Rietavas Tourism and Business Information Centre and Association Rietavas Women Employment Centre);
- in Poland – ***Zachodniopomorskie region*** (PL42) which includes Miasto Szczecin (partner – Media Dizjan), ***Warminsko-Mazurskie region*** (PL62) which includes Elbląski subregion (partner – Association of Polish Communes of Euroregion Baltic) and ***Pomorskie region*** (PL63) which includes Trójmiejski subregion (partner – Pomeranian Science and Technology Park);
- in Sweden – ***Sydsverige region*** (SE22) which includes county of Blekinge (partner – Blekinge Institute of Technology).

Picture 1.
The eligible area of the South Baltic Cross-border Co-operating Programme



BACKGROUND INFORMATION OF THE TARGET REGIONS

It was already mentioned that the Project implementation territory covers a set of target local areas at NUTS 3 level within the South Baltic Sea Region countries. Nevertheless, for analysis of the situation in the target regions, NUTS 2 level was selected due to more accessible statistical data.

Therefore the description of the target regions includes the following administrative units: Mecklenburg-Vorpommern region (DE80), Zachodniopomorskie region (PL42), Warminsko-Mazurskie region (PL62), Pomorskie region (PL63) and Sydsverige region (SE22). The only exception is Lithuania where two NUTS 3 level regions – Klaipėda County (LT003) and Telšiai County (LT008) – were identified as Lithuania is treated as a single NUTS 2 region.

Territory and inhabitants

According to geographical area, Warminsko-Mazurskie (PL), Mecklenburg-Vorpommern (DE) and Zachodniopomorskie (PL) are the largest regions, which territories cover more than 0,5 percent of EU's land area (see Table No. 1).

Table 1.
Area and population in the target regions

	Area, km^2 (2015)	Area relative to		Population, number (2017)	Population relative to	
		Country	EU		Country	EU
EU-28	**4 369 364**	**--**	**100**	**511 522 671**	**--**	**100**
Germany	**357 376**	**100**	**8,18**	**82 521 653**	**100**	**16,13**
Mecklenburg-Vorpommern	23 213	6,5	0,53	1 610 674	2,0	0,31
Lithuania*	**65 286**	**100**	**1,49**	**2 821 674**	**100**	**0,55**
Klaipeda	5 222	8,0	0,12	318 003	11,3	0,06
Telšiai	4 349	6,7	0,10	135 388	4,8	0,03
Poland	**312 679**	**100**	**7,16**	**37 972 964**	**100**	**7,42**
Zachodniopomorskie	22 892	7,3	0,52	1 681 246	4,4	0,33
Warminsko-Mazurskie	24 173	7,7	0,55	1 410 641	3,7	0,28
Pomorskie	18 310	5,9	0,42	2 285 800	6,0	0,45
Sweden	**438 574**	**100**	**10,04**	**9 995 153**	**100**	**1,95**
Sydsverige	14 341	3,3	0,33	1 483 018	14,8	0,29

Source: Eurostat
**Data from the Statistical Department of Lithuania*

The most populous among target regions is Pomorskie region (PL), with an estimated 2,3 million people in 2017. Zachodniopomorskie (PL) and Mecklenburg-Vorpommern regions follow the next and have more than 1,6 million inhabitants or more than 0,3 percent of the EU population.

The most densely populated areas are the Pomorskie (PL) and Sydsverige (SE) regions: there are about 129 inhabitants per km^2 in the Pomorskie region, and the population density in Sydsverige in 2016 was 106 inhabitants / km^2. While the least densely populated region is Telšiai (LT) with 33 persons per square kilometre and this is 3,5 times less than EU average (see Table No. 2.).

Table 2.
Population density by target regions, 2016

	Population density, inhabitants per km^2	Population density relative to	
		Country, percent	EU, percent
EU-28	**117,5**	**--**	**100**
Germany	233,1	100	198
Mecklenburg-Vorpommern	71,4	31	61
Lithuania	**45,8**	**100**	**39**
Klaipeda	69,0	151	59
Telšiai	33,1	72	28
Poland	**123.6**	**100**	**105**
Zachodniopomorskie	77,0	62	66
Warminsko-Mazurskie	61,5	50	52
Pomorskie	128,9	104	110
Sweden	**24,4**	**100**	**21**
Sydsverige	105,9	434	90

Source: Eurostat

Standards of living the target regions

The gross domestic product (GDP) is the basic indicator to measure a country's/region's economy in general. GDP reflects the total value of everything produced by all the people and companies in the country/ region. However countries/regions have very different numbers of people and if we are trying to compare standards of living it is commonplace to use GDP per capita, in other words, adjusted for the size of an economy in terms of its population. As well the relative position of individual countries/ regions can be expressed through a comparison with the EU-28 average, with this set to equal 100.

The average GDP per capita at current prices within the EU-28 in 2016 was EUR 29,2 thousand (see Table No. 3.).

Table 3.
Gross domestic product (GDP) at current market prices, GDP per capita and its percentage of the EU average in the target regions, 2016

	Million euro	Euro per inhabitant	Euro per inhabitant in percentage of the national average	Euro per inhabitant in percentage of the EU average
EU-28	**14,907,852**	**29,200**	**--**	**100**
Germany	3,144,050	38,200	**100**	**131**
Mecklenburg-Vorpommern	41,580	25,800	67,5	89
Lithuania*	**38,668**	**13,500**	**100**	**46**
Klaipeda	4,282	13,300	98,5	46
Telšiai	1,315	9,400	69,9	32
Poland	**425,980**	**11,100**	**100**	**38**
Zachodniopomorskie	15,878	9,300	83,8	32
Warminsko-Mazurskie	11,362	7,900	71,2	27
Pomorskie	24,807	10,700	96,4	37
Sweden	**465,186**	**46,900**	**100**	**161**
Sydsverige	57,925	39,400	84,0	135

Source: Eurostat
**Data from the Statistical Department of Lithuania*

The dispersion in GDP per capita across the target regions is quite remarkable. The highest value among the target regions was recorded for Sydsverige region (Sweden), where in 2016 GDP per capita exceeded the EU-28 average. Mecklenburg-Vorpommern region (Germany) had a level of GDP per capita which was only about 10% below the EU-28 average**.** On the other hand, the GDP per capita in Klaipeda and Telšiai counties (Lithuania) and in target regions of Poland (Zachodniopomorskie, Warminsko-Mazurskie, Pomorskie) was 2-3 times lower than the EU average

Innovation performance of the target regions

Regional Innovation Scoreboard (RIS) provides a comparative assessment of innovation performance of target regions. Regional innovation performance is measured using the Regional Innovation Index (RII), which summarizes the performance on a range of selected indicators.

Lithuania is included only at the country level, as in Lithuania NUTS 1 and NUTS 2 levels are identical to the country territory.

Regions are grouped into four innovation performance groups according to their performance on the Regional Innovation Index relative to that of the EU. Regions have been classified into:

- regional Innovation Leaders – regions which perform 20% or more above the EU average;
- regional Strong Innovators – regions performing between 90% and 120% of the EU average;
- regional Moderate Innovators – regions performing between 50% and 90% of the EU average;
- regional Modest Innovators – regions which perform below 50% of the EU average.

The table No. 4 shows the scores per indicator and relative results compared to the country and the EU. The table also shows the Regional Innovation Index (RII) in 2017 compared to that of the country and the EU in 2017, the RII in 2011 compared to that of the EU in 2011, and performance change over time.

Table 4.
Regional Innovation Scoreboard indicators by target regions[1]

Mecklenburg-Vorpommern (DE80)	Data	Normalised score	Relative to	
			Country	EU
R&D expenditures business sector	0.47	0.257	45	56
SMEs innovating in-house[2]	±	0.639	±	±
Innovative SMEs collaborating[3]	±	0.295	±	±
EPO patent applications per billion regional GDP (PPS€)	2.23	0.276	49	71
Trademark applications per billion regional GDP (PPS€)	2.51	0.256	61	65
Design applications per billion regional GDP (PPS€)	0.22	0.231	42	44
RII 2017	-	0.452	82.2	99.5
RII 2011	-	0.445	79.2	100.7
RII – change 2011-2017	-	1.5	-	-
Zachodniopomorskie (PL42)	Data	Normalised score	Relative to	
			Country	EU
R&D expenditures business sector	0.09	0.088	36	19
SMEs innovating in-house	±	0.163	±	±
Innovative SMEs collaborating	±	0.098	±	±
EPO patent applications per billion regional GDP (PPS€)	0.46	0.119	88	31
Trademark applications per billion regional GDP (PPS€)	3.25	0.292	85	74
Design applications per billion regional GDP (PPS€)	1.23	0.546	82	105
Regional Innovation Index 2017	-	0.213	87.5	47.0
Regional Innovation Index 2011	-	0.189	80.7	42.6
RII – change 2011-2017	-	5.6	-	-
Warminsko-Mazurskie (PL62)	Data	Normalised score	Relative to	

[1] *https://ec.europa.eu/growth/industry/innovation/facts-figures/regional_en*
[2] *SMEs innovating in-house as percentage of SMEs*
[3] *Innovative SMEs collaborating with others as percentage of SMEs*

			Country	EU
R&D expenditures business sector	0.06	0.064	26	14
SMEs innovating in-house	±	0.165	±	±
Innovative SMEs collaborating	±	0.098	±	±
EPO patent applications per billion regional GDP (PPS€)	0.15	0.062	46	16
Trademark applications per billion regional GDP (PPS€)	1.56	0.202	59	51
Design applications per billion regional GDP (PPS€)	1.46	0.595	89	114
RII 2017	-	0.177	72.4	38.9
RII 2011	-	0.191	81.9	43.3
RII – change 2011-2017	-	-3.3	-	-
Pomorskie (PL63)	Data	Normalised score	Relative to	
			Country	EU
R&D expenditures business sector	0.61	0.299	121	65
SMEs innovating in-house	±	0.138	±	±
Innovative SMEs collaborating	±	0.090	±	±
EPO patent applications per billion regional GDP (PPS€)	0.66	0.146	107	37
Trademark applications per billion regional GDP (PPS€)	4.40	0.339	99	86
Design applications per billion regional GDP (PPS€)	1.38	0.578	87	111
RII 2017	-	0.250	102.4	55.0
RII 2011	-	0.248	106.1	56.0
RII – change 2011-2017	-	0.4	-	-
Sydsverige (SE22)	Data	Normalised score	Relative to	
			Country	EU
R&D expenditures business sector	2.58	0.660	111	145
SMEs innovating in-house	±	0.525	±	±
Innovative SMEs collaborating	±	0.299	±	±
EPO patent applications per billion regional GDP (PPS€)	14.00	0.708	125	182
Trademark applications per billion regional GDP (PPS€)	9.18	0.490	108	125
Design applications per billion regional GDP (PPS€)	2.47	0.773	118	148
RII 2017	-	0.644	100.7	141.8
RII 2011	-	0.674	107.8	152.4
RII – change 2011-2017	-	-6.8	-	-
Lithuania[4]	Performance relative to EU in		Change 2010-2016	
	2010	2016		
R&D expenditures business sector	15.0	21.9	+6.9	
SMEs innovating in-house	50.5	100.7	+50.2	
Innovative SMEs collaborating	68.5	140.3	+71.8	
EPO patent applications per billion regional GDP (PPS€)	38.5	46.4	+7.9	
Trademark applications per billion regional GDP (PPS€)	57.0	93.0	+36.0	
Design applications per billion regional	13.0	30.9	+17.9	

[4] *http://ec.europa.eu/DocsRoom/documents/24829*

GDP (PPS€)			
Innovation Index	58.3	79.4	+21,0

General innovation performance per Region:

- Sydsverige (SE) is an Innovation Leader, however its innovation performance has decreased in 2011-2017;
- Mecklenburg-Vorpommern (DE) is a Strong Innovator, and innovation performance has increased in 2011-2017;
- Zachodniopomorskie and Pomorskie (PL) are a Moderate Innovators, and innovation performance has increased slightly in 2011-2017;
- Lithuania is a Moderate Innovator; in 2010-2016 its performance has increased by 21% relative to that of the EU;
- Warminsko-Mazurskie (PL) is a Modest Innovator, and innovation performance has decreased in 2011-2017

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I. SUPPLY CAPACITY OF CREATIVE INDUSTRIES IN PROMOTING INNOVATION AND INTER-SECTORAL COOPERATION

Increasing focus on innovation in business gave rise to the interest in the knowledge and methods, which are used in the creative industries (CI). Though creative industries can be considered as part of the business economy, they are distinguished from business sector by the products and services they offer. As a result of the creative process, creative industries can offer highly original and unique products and services. Thus, in order to facilitate development, growth, change and transformation, businesses shall not miss on opportunities to learn from creative industries[5].

Despite some criticism concerning definition of the creative industries, the most widely accepted is one set by UK DCMS[6]*, according to which creative industries are "those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property"*[7]*. The structure of the creative industries evolved with time and different countries have made their adjustments concerning the sectors included in creative industries.*

As specified in the Communication of the European Commission[8] *cultural and creative sectors cover in particular architecture, archives and libraries, artistic crafts, audio-visual (including film, television, video games and multimedia), cultural heritage, design (including fashion design), festivals, music, performing and visual arts, publishing and radio. They can also include other sectors, which rely on a strong cultural and creative input, such as advertising, software, as well as fashion and high-end industries.*

The framework of the study involves focusing on a few creative industries, namely architecture (naval architects), design (industrial, graphic, interior and interaction), advertising and software & games that exist in each target region.

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[5] *https://waset.org/publications/9877/what-creative-industries-have-to-offer-to-business-creative-partnerships-and-mutual-benefits*

[6] *The Department for Digital, Culture, Media and Sport (DCMS) of the United Kingdom government.*

[7] *https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/394668/Creative_Industries_Economic_Estimates_-_January_2015.pdf*

[8] *26.9.2012, COM(2012) 537 final http://www.europarl.europa.eu/registre/docs_autres_institutions/commission_europeenne/com/2012/0537/COM_COM%282012%290537_EN.pdf*

CREATIVE INDUSTRIES IN KLAIPEDA AND TELŠIAI REGIONS

Describing the status of the creative enterprises in Klaipeda and Telšiai regions, this section provides the statistical data analysis, which covers region specific business structure data related to the selected creative sectors, i.e. architecture (naval architects), design, advertising and software & games. However, the statistical databases do not provide data that would allow to distinguish some specific business sectors that are targeted – there is no possibility to obtain statistics of naval architects, as statistics is collected only for architectural activities in general. Therefore, for the purpose of the precision and comparability of statistical information, enterprises operating in the selected creative sectors were defined according the statistical classification of economic activities (NACE)[9]. The enterprises analysed are those who correspond to the following economic activities (NACE 2 rev.):

- Publishing of computer games (J58.21);
- Computer programming activities (J62.01);
- Architectural activities (M71.11);
- Advertising agencies (M73.11);
- Specialised design activities (M74.10)[10].

The range of economic activities that are related to the creative industries are expressed in terms of the smallest units, and classified in the terms of the classification model, using the so-called classes with their 4-digit codes. Therefore, for the analysis of the creative industries, the publically available statistics is of limited use, as it does not provide such "small" data. For this reason, the request for more specified statistics was formed for national Statistical office.

In addition, seeking to find out supply capacity of creative industries in fostering innovation and identify the scale of cooperation with traditional businesses, the qualitative data (derived from qualitative interviews and focus groups conducted with representatives of creative and traditional business enterprises in target regions) were collected, that made it possible to reveal the creative

[9] NACE *(fr. **N**omenclatures des **A**ctivities de **C**ommunite **E**uropeene)* – Statistical Classification of Economic Activities in the European Community.

[10] *This class includes:*
- fashion design related to textiles, wearing apparel, shoes, jewellery, furniture and other interior decoration and other fashion goods as well as other personal or household goods;
- industrial design, i.e. creating and developing designs and specifications that optimise the use, value and appearance of products, including the determination of the materials, mechanism, shape, colour and surface finishes of the product, taking into consideration human characteristics and needs, safety, market appeal in distribution, use and maintenance;
- activities of graphic designers;
- activities of interior decorators.

companies' attitudes towards cross-sectoral cooperation, the motives and barriers to engage in such cooperation.

STATISTICS OF CREATIVE ENTERPRISES

In 2016, Lithuanian business economy was made up of 3735 active local enterprises[11] operating in the sphere of the selected creative industries (i.e. architecture, design, advertising and software & games[12]) with some 19913 persons employed (see Tables No. 1.1.-1.2.). The local creative enterprises of mentioned sectors accounted for about 4 percent of all local companies operating in the country and employed about 2 percent of all persons employed in non-financial local business enterprises.

KLAIPEDA REGION

In 2016, there were 307 local creative enterprises operating in Klaipeda Region, which comprised 2,8 percent of all local enterprises in the Region and 8,2 percent of local creative sector businesses in Lithuania (see Tables No. 1.1.-1.2.). These companies employed 1102 people, i.e. produced about 1,0 percent of the region's jobs.

Table 1.1.
Dynamics of number of local enterprises, 2015-2016.

	Number of all local enterprises			Number of local enterprises of creative sectors		
	2015	2016	Change in 2015-2016, %	2015	2016	Change in 2015-2016, %
Lithuania	92695	93718	1,1	3626	3735	3,0
Klaipeda Region	10921	11042	1,1	295	307	4,1

Source: Lithuanian Department of Statistics

In recent years, the local creative sector companies in the Klaipeda Region have grown – the number of these companies increased by 4,1 percent in 2015-2016 and exceeded the overall national trends (3%). It should be noted that according to the general growth rate of all local enterprises, the Klaipeda Region is in line with the average of Lithuania (1,1 %).

[11] *The statistics is presented at the local unit level. Due e to the clarity of the description, the term 'local enterprise' instead of the local unit is used. The local unit is defined as an enterprise or part thereof (e.g. a workshop, factory. The analysis of the local units/local enterprises focuses on the non-financial business sector.*

[12] *For the sake of clarity of the description, the local enterprises of these selected creative sectors will be referred to as creative local enterprises, but it is important to emphasize that they represent only a part of the local creative sector companies.*

Table 1.2.
Dynamics of number of persons employed, 2015-2016.

	Number of persons employed in all local enterprises			Number of persons employed in the local creative sector enterprises		
	2015	2016	Change in 2015-2016, %	2015	2016	Change in 2015-2016, %.
Lithuania	920537	938234	1,9	19913	20484	2,9
Klaipeda Region	109044	111815	2,5	1084	1102	1,7

Source: Lithuanian Department of Statistics

The number of people employed in the local creative sectors enterprises in the Klaipeda region has also increased in recent years, but this growth rate was lower than the national average – the number of people employed in the analysed creative sector enterprises increased by 1,7 percent in Klaipeda Region, while in Lithuania by 2,9 percent. Moreover, the growth in the number of people employed in the local creative sector companies in the Klaipeda Region (1,7 %) was slower as compared to the growth of the number of people working in all local business enterprises in the Region (2,5 %).

In 2016, the total local non-financial business economy in Klaipeda Region produced a turnover of 8763,636 million euros at current prices and 2055,818 million euros of added value. While the turnover of local enterprises engaged in the creative sectors amounted to EUR 27,291 million, generating a total value added of 12,09 million euros (see Table No. 1.3.).

Table 1.3.
Turnover and value added at factor cost of local non-financial business enterprises, 2016.

	Turnover, million EUR			**Value added**, million EUR			The share of added value as a percentage of turnover, in total / in CI
	All local enterprises	Local creative enterprises	Ratio of total and CI turnover, %	All local enterprises	Local creative enterprises	Ratio of total and CI value added, %	
Lithuania	76423,73	923,859	1,2	17016,23	431,892	2,5	22,3/ 46,7
Klaipeda Region	8763,636	27,291	0,3	2055,818	12,09	0,6	23,5 / 44,3

Source: Lithuanian Department of Statistics

The selected creative sectors companies represent 0,3 percent of turnover and 0,6 % of added value of the total local business economy in the Region, indicating that local creative enterprises in

general perform relatively better on the generation of added value. In order to assess the ability to generate

added value, the share of added value as a percentage of turnover can be used. On average 23,5 percent of all non-financial local business turnover remains as added value in Klaipeda Region, nevertheless the local creative industries show the higher added value/turnover ratio – 44,3 percent. In general, Klaipeda Region turnover and value added indicators related to the local creative enterprises (percentage of turnover and value added) are worse than the national average.

The overwhelming majority (99,7 %) of all local business enterprises active within the Klaipeda Region in 2016 were SMEs (the national average is the same). Micro-enterprises[13] with number of employees not exceeding 10 constituted 80,8 percent of the total number of local enterprises (see Table No. 1.4,).

Table 1.4.
Number of local non-financial business enterprises by enterprise size class, 2016.

Size class of enterprise	Lithuania		Klaipeda Region	
	Numb.	% of total	Numb.	% of total
Micro (< 10)	76660	81,8	8929	80,8
Small (< 50)	14148	15,1	1752	15,9
Medium (< 250)	2589	2,8	329	3,0
SMEs	**93397**	**99,7**	**11010**	**99,7**
Large (≥ 250)	321	0,3	32	0,3
Total	**93718**		**11042**	

Source: Lithuanian Department of Statistics

SMEs play an even larger role in the local creative sector in Klaipeda Region – in 2016, 100 percent of local enterprises active in the sphere of the selected creative sectors were SMEs (see Figure No. 1.1. and Table No. 1.5.).

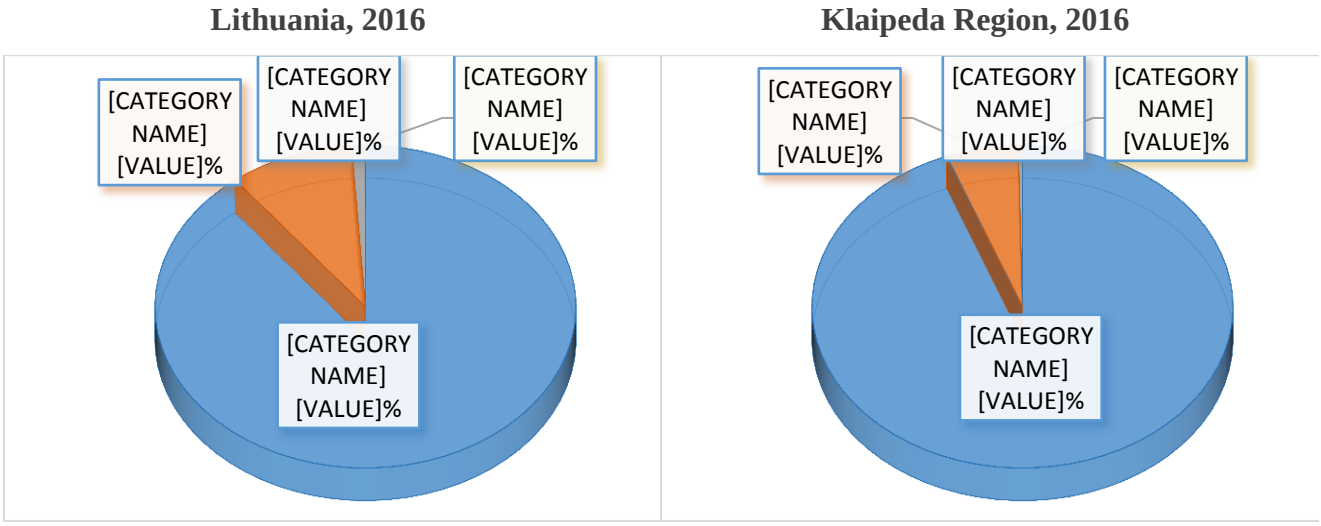
Table 1.5.
Number of local creative business enterprises by enterprise size class, 2016.

Size class of enterprise	Lithuania		Klaipeda Region	
	Numb.	% of total	Numb.	% of total
Micro (< 10)	3338	89,37	289	94,14
Small (< 50)	357	9,56	17	5,54
Medium (< 250)	39	1,04	1	0,32
SMEs	**3734**	**99,97**	**307**	**100**
Large (≥ 250)	1	0,03	0	0
Total	**3735**		**307**	

[13] *The official EC definition of SMEs takes account of three different factors (level of employment, level of turnover, and size of the balance sheet). However, the data are based only on the employment definition, since this is the* definition *used by the Structural Business Statistics database maintained by Eurostat and Statistical Department of Lithuania.*

Source: Lithuanian Department of Statistics

Figure 1.1.
Share of all local creative enterprises by size class.



Source: Lithuanian Department of Statistics

The creative sector (covering architecture, design, advertising and software & games) in Klaipeda Region is dominated by micro-enterprises, which account for 94,1 percent, while national average is 89,4 percent. Small-sized creative enterprises account for 9,6 percent and large-sized companies account for only 0,03 percent.

Moreover, the data presented in the table No. 1.6. demonstrate that the percentage of local micro enterprises of the selected creative sectors in Klaipeda Region is increasing (by 4,7 % in 2015-2016). This means that enterprises size reduction is taking place – the percentage of the small local enterprises is falling (by 5,6 % in 2015-2016), while number of medium-sized local enterprises remains constant.

Table 1.6.
Change in the number of local creative sector enterprises by size class.

	Micro (< 10)			Small (< 50)			Medium (< 250)			Large (≥ 250)		
	2016	**2015**	Change 2015-2016, %	**2016**	**2015**	Change 2015-2016, %	**2016**	**2015**	Change 2015-2016, %	**2016**	**2015**	Change 2015-2016, %
Lithuania	3338	3240	+3,0	357	347	+2,9	39	38	+2,6	1	1	0
Klaipeda Region	289	276	+4,7	17	18	-5,6	1	1	0,0	0	0	0

Source: Lithuanian Department of Statistics

In 2016, the creative micro-enterprises of the Klaipeda Region employed more than two-thirds (68,9 %) of the people working in the creative sector. Small companies have created about one fifth of jobs (21,87%) and large companies have employed 9,3 percent of the people (see Table No. 1.7.). At national level, creative micro-enterprises employed 42,3 percent of the people working in this sector, small businesses – 33,3 percent, and the share of people employed by large companies was almost double that of the Region.

Table 1.7.
Number of persons employed in the local creative sectors enterprises by size class, 2016.

Size class of enterprise	Lithuania		Klaipeda Region	
	Numb.	% of total	Numb.	% of total
Micro (< 10)	8654	42,25	759	68,87
Small (< 50)	6817	33,28	241	21,87
Medium (< 250)	3861	18,85	102	9,26
SMEs	**19332**	**94,4**	**1102**	**100**
Large (≥ 250)	1152	5,62	0	0
Total	**20484**		**1102**	

Source: Lithuanian Department of Statistics

The birth[14] of new enterprises is often seen as one of the key determinants of job creation and economic growth. In Klaipeda Region, there were 5346 jobs created from 5320 newly-born enterprises, in 2016 (see Table No. 1.8.). It accounted for more than 11 percent of newly-created enterprises and persons employed in start-ups in Lithuania.

Enterprises representing the selected creative sectors accounted for 3,4 percent of all start-ups in the Klaipeda Region and their number in 2016 was 179. It accounted for 9,7 percent of newly-born creative enterprises in Lithuania. The fact that the Region creates 11 percent of all national new enterprises, while creative start-ups make up 9,7 percent of new creative enterprises in the country, shows that the establishment of new creative companies is slower than the births of all other companies.

[14] *New business registrations are referred to as business births.*

Table 1.8.
Number of newly-born enterprises and persons employed in the population of births, 2016.

	All non-financial enterprises			Enterprises of the selected creative sectors		
	Births of enterprises	Persons employed in the population of births	Average size of enterprises	Births of enterprises	Persons employed in the population of births	Average size of enterprises
Lithuania	46669	48038	1,0	1841	1707	0,9
Klaipeda Region	5320	5346	1,0	179	159	0,9

Source: Lithuanian Department of Statistics

In Klaipeda Region, the contribution of these newly-born creative enterprises to employment was also not very high – there were 159 persons engaged in newly established creative enterprises, accounting for 3,0 percent of the total number of people employed in new enterprises in the Region. Persons employed in the creative sector start-ups in Klaipeda Region account for 9,3 percent of the country's employees in the newly established creative enterprises.

In Lithuania, the average size of newly born enterprises for the whole of the business economy in 2016 was 1 person per enterprise (see Table No. 1.8.), while creative companies were smaller in size – on average they employed 0,9 person per enterprise. In terms of this indicator, Klaipeda Region is fully in line with the national average.

Another feature of entrepreneurial dynamism relates to the presence of high-grow enterprises. High growth enterprises are those which average annualized growth in employment greater than 10% a year, over a three-year period. In 2016, around 1940 companies, or 2,1 percent of all active enterprises in Lithuania were recognized as high-growth enterprises (see Table No. 1.9.). In the Klaipeda Region, there were 225 high-growth enterprises (11% of all high-growth companies in the country), of which only 1 represented the creative sector.

Table 1.9.
Number of high-grow enterprises, 2016.

	All non-financial enterprises	Enterprises of the selected creative activities
Lithuania	1940	75
Klaipeda Region	225	1

Source: Lithuanian Department of Statistics

TELŠIAI REGION

In 2016, there were 42 local creative enterprises operating in Telšiai Region, which comprised 1,3 percent of all local enterprises in the Region and 1,1 percent of local creative sector businesses in Lithuania (see Tables No. 1.10.–1.11.). These companies employed 141 people, i.e. produced about 0,4 percent of the Region's jobs.

In recent years, the number of the selected creative sector companies in the Telšiai Region has been decreasing – the number of these companies decreased by 4,5 percent in 2015-2016 and significantly lagged behind the national average (+3 %). It should be noted that according to the general growth rate of all local enterprises, the Telšiai Region (0,7 %) was also below the national average (1,1 %).

Table 1.10.
Dynamics of number of local enterprises, 2015-2016.

	Number of all local enterprises			Number of local enterprises of creative sectors		
	2015	2016	Change in 2015-2015, %.	2015	2016	Change in 2015-2015, %.
Lithuania	92695	93718	1,1	3626	3735	3,0
Telšiai Region	3330	3354	0,7	44	42	-4,5

Source: Lithuanian Department of Statistics

Table 1.11.
Dynamics of number of persons employed, 2015-2016.

	Number of persons employed in all local enterprises			Number of persons employed in the local creative sector enterprises		
	2015	2016	Change in 2015-2015, %.	2015	2016	Change in 2015-2015, %.
Lithuania	920537	938234	1,9	19913	20484	2,9
Telšiai Region	36436	37051	1,7	159	141	-11,3

Source: Lithuanian Department of Statistics

The number of people employed in the local creative sector enterprises in the Telšiai Region has also decreased in recent years, moreover the extent of employment decline was even more significant. The number of people employed in the local creative enterprises decreased by

11,3 percent in Telšiai Region, while in Lithuania the number of people employed in this type of enterprises has increased by 2,9 percent in 2015-2016. It is important to note that the number of persons employed in all local enterprises in Telšiai Region grew by 1,7 percent in 2015-2016 and was only slightly lagged behind the national average (+1,9).

In 2016, the total local non-financial business economy in Telšiai Region produced a turnover of 5149,183 million euros at current prices and 720,999 million euros of added value. While the turnover of local enterprises engaged in the creative sectors amounted to EUR 2,1 million, generating a total value added of 0,7 million euros (see Table No. 1.12.). The local creative sector companies represent 0,04 percent of turnover and 0,1 percent of added value of the total local business economy in the Region, indicating that local creative enterprises in general perform relatively better on the generation of added value. In order to assess the ability to generate added value, the share of added value as a percentage of turnover can be used. On average 14,0 percent of all non-financial local business turnover remains as added value in Telšiai Region, nevertheless the local creative industries show the higher added value/turnover ratio – 33,3 percent.

In general, regional turnover and value added indicators related to the local creative enterprises are worse than the national average.

Table 1.12.
Turnover and value added at factor cost of local non-financial business enterprises, 2016.

	Turnover, million EUR			Value added, million EUR			The share of added value as a percentage of turnover, in total / in CI
	All local enterprises	Local creative enterprises	Ratio of total and CI turnover, %	All local enterprises	Local creative enterprises	Ratio of total and CI value added, %	
Lithuania	76423,728	923,859	1,2	17016,23	431,892	2,5	22,3/ 46,7
Telšiai Region	5149,183	2,1	0,04	720,999	0,7	0,1	14,0 / 33,3

Source: Lithuanian Department of Statistics

The overwhelming majority (99,6 %) of all local business enterprises active within the Telšiai Region in 2016 were SMEs (the national average is almost the same – 99,7 %). Micro-enterprises[15]

[15] *The official EC definition of SMEs takes account of three different factors (level of employment, level of turnover, and size of the balance sheet). However, the data are based only on the employment definition, since this is the definition used by the Structural Business Statistics database maintained by Eurostat and Statistical Department of Lithuania.*

with number of employees not exceeding 10 constituted 78,6 percent of the total number of local enterprises (see Table No. 1.13.).

Table 1.13.
Number of all local non-financial business enterprises by enterprise size class, 2016.

Size class of enterprise	Lithuania		Telšiai Region	
	Numb.	% of total	Numb.	% of total
Micro (< 10)	76660	81,8	2638	78,6
Small (< 50)	14148	15,1	591	17,6
Medium (< 250)	2589	2,8	113	3,4
SMEs	**93397**	**99,7**	**3342**	**99,6**
Large (≥ 250)	321	0,3	12	0,4
Total	**93718**		**3354**	

Source: Lithuanian Department of Statistics

SMEs play an even larger role in the selected creative sectors in Telšiai Region – in 2016, 100 percent of local enterprises active in the sphere of the selected creative sectors were SMEs (see Table No. 1.14.).

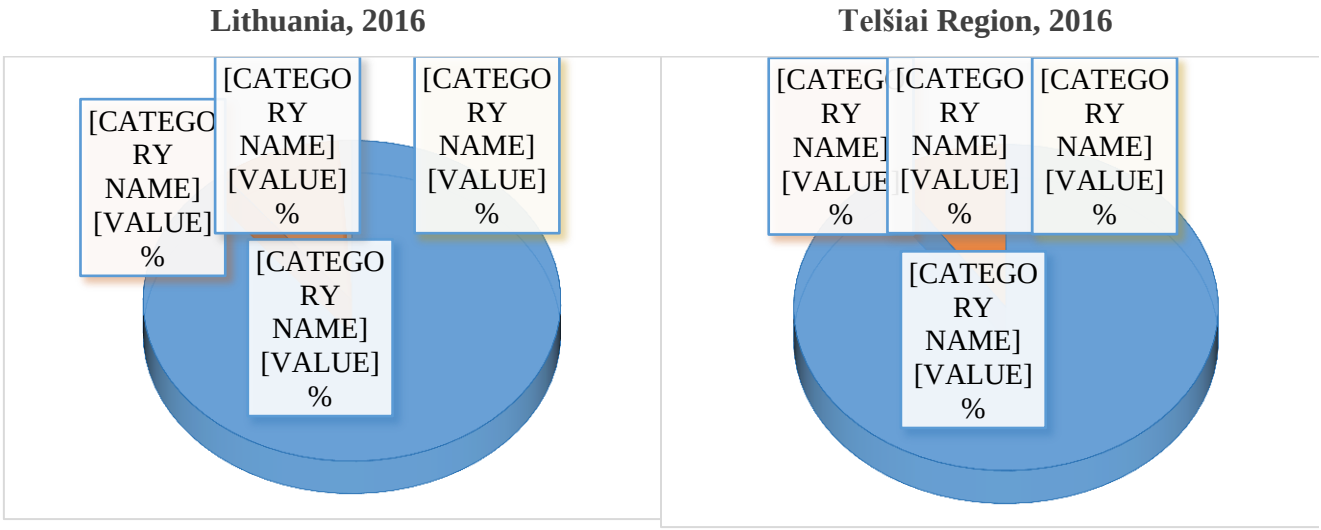
Table 1.14.
Number of local creative business enterprises by enterprise size class, 2016.

Size class of enterprise	Lithuania		Telšiai Region	
	Numb.	% of total	Numb.	% of total
Micro (< 10)	3338	89,37	38	90,48
Small (< 50)	357	9,56	4	9,52
Medium (< 250)	39	1,04	0	0
SMEs	**3734**	**99,97**	**42**	**100**
Large (≥ 250)	1	0,03	0	
Total	**3735**		**42**	

Source: Lithuanian Department of Statistics

The creative sector in Telšiai Region is dominated by micro-enterprises, which account for 90,5 percent, while local small-sized enterprises accounted for 9,5 percent. There are no medium-sized or large creative enterprises (covering architecture, design, advertising and software & games) in the Region (see Figure No. 1.2.).

Figure 1.2.
Share of local creative enterprises by size class.



Source: Lithuanian Department of Statistics

Data presented in the table No. 1.15. demonstrate that the percentage of local micro and small creative enterprises in Telšiai Region was decreasing in 2015-2016 (by 2,6 % and 20,0 % respectively). This means that enterprises size reduction is taking place, as the number of local small enterprises decline faster than micro enterprises. Meanwhile, growth in the number of SMEs of all sizes was observed in the country.

Table 1.15.
Change in the number of local creative sector enterprises by size class.

	Micro (< 10)			Small (< 50)			Medium (< 250)			Large (≥ 250)		
	2016	**2015**	Change, %	**2016**	**2015**	Change, %	**2016**	**2015**	Change, %	**2016**	**2015**	Change, %
Lithuania	3338	3240	+3,0	357	347	+2,9	39	38	+2,6	1	1	0
Telšiai Region	38	39	-2,6	4	5	-20,0	0	0	0,0	0	0	0

Source: Lithuanian Department of Statistics

In 2016, creative micro-enterprises of the Telšiai Region employed 62,4 percent of the people working in the creative sector. Small-sized enterprises have created almost 37,6 percent of jobs (see Table No. 1.16.). Compared to the national average, relatively more jobs have been created by Regional creative micro and small enterprises and this is due to the fact that there are no medium and large enterprises in the region.

Table 1.16.
Number of persons employed in the local creative sectors enterprises by size class, 2016.

Size class of enterprise	Lithuania		Telšiai Region	
	Numb.	% of total	Numb.	% of total
Micro (< 10)	8654	42,25	88	62,4
Small (< 50)	6817	33,28	53	37,6
Medium (< 250)	3861	18,85	0	0
SMEs	**19332**	**94,4**	**141**	**100**
Large (≥ 250)	1152	5,6	0	0
Total	**20484**		**141**	

Source: Lithuanian Department of Statistics

The birth[16] of new enterprises is often seen as one of the key determinants of job creation and economic growth. In Telšiai Region, there were 1794 jobs created from 1752 newly-born enterprises, in 2016 (see Table No. 1.17). It accounted for about 3,7 percent of newly-created enterprises and persons employed in start-ups in Lithuania.

Table 1.17.
Number of newly-born enterprises and persons employed in the population of births, 2016.

	All non-financial enterprises			Enterprises of the selected creative sectors		
	Births of enterprises	Persons employed in the population of births	Average size of enterprises	Births of enterprises	Persons employed in the population of births	Average size of enterprises
Lithuania	46669	48038	1,0	1841	1707	0,9
Telšiai Region	1752	1794	1,0	26	18	0,7

Source: Lithuanian Department of Statistics

Enterprises representing the selected creative sectors accounted for only 1,5 percent of all start-ups in the Telšiai Region and their number in 2016 was 26. It accounted for 1,4 percent of newly-born creative enterprises in Lithuania. The fact that the Region creates 3,7 percent of all national new enterprises, while creative start-ups make up 1,4 percent of new creative enterprises in the country, shows that the establishment of new creative companies is slower than the births of all other companies.

[16] *New business registrations are referred to as business births.*

In Telšiai Region, the contribution of these newly-born creative enterprises to employment was also not very high – there were 18 persons engaged in newly established creative enterprises, accounting for only 1,0 percent of the total number of people employed in new enterprises in the Region. Persons employed in the creative start-ups in Telšiai Region as well account for 1,0 percent of the all employees in the newly established creative enterprises in the country.

In Lithuania, the average size of newly born enterprises for the whole of the business economy in 2016 was 1 person per enterprise (see Table No. 1.17.), while creative companies were smaller in size – on average they employed 0,9 person per enterprise. In terms of this indicator, Telšiai Region also lags behind the overall national trends by employing 0,7 person per new creative enterprise on average.

Another feature of entrepreneurial dynamism relates to the presence of high-grow enterprises. High growth enterprises are those which average annualized growth in employment greater than 10% a year, over a three-year period. In 2016, around 1940 companies, or 2,1 percent of all active enterprises in Lithuania were recognized as high-growth enterprises (see Table No. 1.18.).

Table 1.18.
Number of high-grow enterprises, 2016.

	All non-financial enterprises	Enterprises of the selected creative activities
Lithuania	1940	75
Telšiai Region	50	0

Source: Lithuanian Department of Statistics

In 2016, there were 50 high-growth enterprises (2,6 % of all high-growth companies in the country) in the Telšiai Region, among which there were no companies representing the selected creative sectors.

Qualitative research with representatives of creative sector in Klaipeda and Telšiai Regions

In order to get more contextual information on the level of traditional-creative cooperation, a qualitative research was carried out with the representatives of creative sector. The aim of the research was to investigate the experience, attitudes, motives and obstacles of the creative sector representatives that influence the development of cross-sectoral cooperation.

The methodology of qualitative research (for more details see Appendix No. 2.) included 9 semi-structured interviews (interview guidelines and list of informants in Annex No. 3.) and focus group discussion (the themes of focus group discussions see in Annex No. 4.) with creative sector representatives from Klaipeda and Telšiai Regions.

From the creative sector's point of view, traditional business approaches to creativity have recently undergone positive changes – the value of creativity is increasingly understood: *"the number of those who do not want anything is decreasing" [KL-4], "the process is gradually evolving, traditional business sometimes turns to creators, wants quality things" [KL-2]*. However, it was emphasized that these trends are just beginning to develop and not widespread: *"it is difficult without creativity, but only a small part of traditional business understands this" [Telš-3], "traditional business has a need, but there are not many such cases, others don't know, don't realize that they need creators" [Telš-1]*.

The creative sector itself is clearly aware of the value of creative services for traditional business. A number of arguments have been put forward suggesting that creative solutions are directly linked to the growth of business competitiveness: *"art and creation bring value" [FG-2], "non-professional design or marketing hinders competition, and then they complain that it is difficult to find international partners" [Telš-3], "they don't realize that investing in creativity will give them returns, maybe 100 times higher" [Telš-3]*.

It was emphasized that finding and applying creative solutions is complicated by the fact that traditional business is conservative and hard to innovate: *"they sometimes want something new, but they are conservative and frightened – too many challenges" [Telš-1]*. Moreover, the creative sector representatives considered that traditional business generally lacks awareness of creative services and understanding of how cooperation with the creative sector could benefit their business

development: *"there is a lack of understanding, traditional business thinks they know better, because when you know nothing about creative possibilities, you don't know what you might want" [KL-2]*.

It was said that such a position of traditional business could be partly related to the lack of more targeted state policy and support for the creative sector: *"state policy should understand the importance of art, science, creativity and purposefully support them, but it is not much appreciated even at ministerial level" [KL-1]*. Also, informants pointed out that in general, insufficient attention is paid to the development of creativity in society: *"there is insufficient attention to development of creativity – the creativity of everyone needs to be nurtured, and then the traditional business will better understand the need for creators" [Telš-3]*.

However, some of the creative sector informants believed that the creative sector itself is not prepared to cooperate with traditional business. It was noted that not all creative sector representatives are able to generate creative ideas: *"we would certainly fulfill orders in our field of activity, but it is unclear whether our competencies would be sufficient to find innovations" [KL-1]*. It was also said that the difficulty arises from the inability of creators to present their services or products in a way that is understandable/ acceptable to traditional business: *"business does not refuse innovation if it is presented properly, results and clearly visible benefits are important for business" [KL-4], "not all creators are ready to work with traditional business – some cannot explain their idea, others are simply in their own world" [KL-2]*. Summing up the thoughts expressed, it was concluded that *"the creators themselves must be creative and entrepreneurial" [FG-2]*.

While discussing the potential contribution of the creative sector to strengthening cooperation with traditional businesses, it was noted that the creative services supply is dominated by public institutions, but all interviewed creative sector representatives have admitted that the supply of creative services or products is primarily driven by their demand: *"if there is a demand, it will be a supply" [KL-1]*. Thus, the need for creative services in traditional business is seen as a key factor in ensuring cooperation between these sectors, otherwise, in the absence of clearly understood mutual benefits, the creators feel like supplicants: *"in relationship with a traditional business we often find ourselves in the position of supplicants, therefore understanding of mutual value is important" [FG-2]*.

It has been argued that cooperation between traditional and creative business is hindered by lack of information and prevailing prejudices and stereotypes. For example, it was said that traditional business often does not turn to the creative sector because there is a widespread belief that the services of creators will cost them a lot: *"there are common myths that creative services are very expensive, so business thinks I will do it myself" [Telš-3]*. Other existing stereotypes were also mentioned: creators sometimes blame the traditional business for greed, on the other hand, traditional business often perceives creators as being out of reality. Therefore, it was considered important for creative and traditional businesses not to apply prejudices and to know each other better: *"it must be understood that the opinion about the inadequacy of the creators is a myth and that the traditional business is greedy is also myth" [Telš-3]*, *"it is important for traditional and creative businesses to introduce themselves to each other and get to know each other" [FG-2]*. The need for intermediaries between traditional and creative business has been identified as one of the possible solutions that can help bridge the gap between the two sectors. Many creators agreed that creative-traditional collaboration would be encouraged by "*facilitators as an intermediate link" [KL-2, Telš-1, Telš-3, FG-2]*. It was also pointed out that collaboration between creative and traditional business would be more active if examples of good practice in cross-sectoral cooperation were more widely presented: *"it would be useful to present success stories that could motivate" [KL-2, FG-2]*.

Main points concerning supply capacity of creative industries for business cross-sectoral collaboration:

- Statistical databases do not provide data that would allow to distinguish some specific creative business sectors that are targeted – there is no possibility to obtain statistics of naval architects, as statistical databases collect data only for architectural activities in general, therefore the enterprises analysed are those who correspond to the following economic activities: publishing of computer games, computer programming activities, architectural activities, advertising agencies and specialised design activities.
- According to 2016 data, there were 307 local creative enterprises of the selected activities in Klaipeda Region. These companies accounted for 8% of the selected creative sector businesses in Lithuania and 3% of all local enterprises in the Region. The analysed creative enterprises employed 1102 people, i.e. produced about 1% of the Region's jobs. In the Telšiai Region, selected creative businesses accounted for a smaller share – there were 42 local creative enterprises, which comprised 1% of all local enterprises in the Region and 1% of the selected creative sector businesses in Lithuania. These companies employed 141 people, i.e. produced about 0,4 % of the Region's jobs.
- In 2016, the turnover of local enterprises engaged in the selected creative activities in Klaipeda Region accounted for 0,3 % of the total business turnover in the Region and generated value added, which amounted to 0,6 % of region's business value-added. In Telšiai Region, the turnover

of local enterprises engaged in the selected creative activities made up 0,04 % of business turnover in the Region, and the added value amounted to 0,1 % of region's business value-added.

- In 2016, 100% of local enterprises active in the sphere of the selected creative sectors were SMEs in both Telšiai and Klaipeda Regions. The selected creative companies in both Regions are dominated by micro-enterprises, which account for 94% in Klaipeda Region and 90,5 % in Telšiai Region while national average is 89%.
- In Klaipeda Region, there were 179 newly established enterprises representing the selected creative sectors (3% of all start-ups in the Region) in 2016. These companies employed 159 persons accounting for 3% of people employed in new enterprises in the Region. In Telšiai Region the emergence of new creative businesses is slower – in 2016, 26 new companies were established (1,5 % of all start-ups in the Region), employing 18 people or 1 % of people employed in new enterprises in the Region.
- In 2016, there were 225 high-growth enterprises (11% of all high-growth companies in the country) in the Klaipeda Region, of which only 1 represented the creative sector. In Telšiai Region, there were 50 high-growth enterprises (2,6 % of all high-growth companies in the country), among which there were no companies representing the selected creative sectors.
- During the interviews and focus group discussions, representatives of the creative sector expressed the view that traditional business is conservative and hard to innovate, and that it lacks awareness of creative services and understanding of how cooperation with the creative sector could benefit business development. Such a traditional business position was associated with a lack of more targeted state policy and insufficient attention to the development of creativity in society.
- It was also noted that in some cases the creative sector itself is not prepared to cooperate with traditional business because not all creators are able to generate creative ideas or present their services and products in a way that is acceptable to traditional business.
- It has been argued that cooperation between traditional and creative business is hindered by lack of information and prevailing prejudices and stereotypes. The need for intermediaries between traditional and creative business has been identified as one of the possible solutions that can help bridge the gap between the two sectors It was also pointed out that collaboration between creative and traditional business would be more active if examples of good practice in cross-sectoral cooperation were more widely presented.
- The creative sector has emphasized that the supply of creative services is primarily driven by their demand.

II. CREATIVITY AND INNOVATION DEMAND IN TRADITIONAL BUSINESS

The European Union aims at making Creative industries (CI) more visible, emphasizing the change of the European economy from traditional production towards services and innovation. Creative industries have great potential and are considered strategic for the development of the regions. As producers of intellectual property, the Creative industries may be a particularly attractive source of external knowledge for innovating firms. They offer a diverse creative products and services which can be integrated into the innovation process of other businesses.

In the context of global economy, traditional businesses have a lot to learn from creative industries – there is a growing demand for the creation and implementation of new products, services and processes to secure innovation and success[17]*. On the other hand, traditional businesses may become important customers, stimulating the development of the creative sector.*

Although there is agreement that collaboration between the creative and traditional business sectors results in cross-innovation, there is still no proper understanding of the mechanism behind successful collaboration. Companies in creative industries have limited contacts with (potential) clients from traditional businesses[18]*. Despite the accepted fact that creative industries possess unique "creative" competences and their 'special' way to see the world and engage in business, the most common perception about them is still that they are "not logical" and usually are considered as missing business skills*[19]*.*

Though a broad variety of industries benefits from the direct and indirect demand generated by the creative industries, often traditional business companies cannot assess the value of creative services for their enterprise adequately. Current practices in engaging into creative-traditional business collaborations are still very few.

[17] *http://www.central2013.eu/fileadmin/user_upload/Downloads/outputlib/CreativeCities_SWOT_Gdansk_EN.pdf*
[18] *http://www.cross-innovation.eu/wp-content/uploads/2014/04/Report_cross-innovation-creative-industries_final_140315.pdf*
[19] *https://waset.org/publications/9877/what-creative-industries-have-to-offer-to-business-creative-partnerships-and-mutual-benefits*

TRADITIONAL BUSINESS IN KLAIPEDA AND TELŠIAI REGIONS

This section aims to overview the current state of traditional businesses in target regions of Lithuania (Klaipeda and Telšiai Regions) focusing on the following selected traditional industries:

- Maritime tourism (yachting, marinas and cruising infrastructure);
- Maritime transport & shipbuilding;
- Green (renewable) energy production (offshore wind energy, biofuels & biogas).

It was considered appropriate to provide a statistical analysis of the selected traditional business, which reflects the region specific business structure data. However, the statistical databases do not provide data that would allow to distinguish the traditional business sectors or sub-sectors that are targeted – there is no possibility to obtain statistics on maritime tourism, as statistical databases only collect general data on tourism (without specifying maritime tourism); the statistical databases do not provide aggregate data for maritime transport & shipbuilding.

Therefore, for the above-mentioned reasons, for the statistical analysis of traditional businesses in the target regions, the companies engaged in the following economic activities (according to the NACE 2 rev.[20]) were selected:

Maritime transport & shipbuilding	– Building of ships and floating structure (C30.11); – Building of pleasure and sporting boats (C30.12); – Repair and maintenance of ships and boats (C33.15); – Sea and coastal passenger water transport (H50.10); – Sea and coastal freight water transport (H50.20); – Service activities incidental to water transportation (H52.22)
Tourism	– Travel agency activities (N79.11); – Tour operator activities (N79.12); – Accommodation and food service activities (I)

Data on renewable energy resources and renewable energy companies are provided separately, because the statistical classification of economic activities (NACE) does not allow the identification of data for renewable energy companies, moreover national Statistical Department does not collect regional data on enterprises of renewable energy production.

[20] NACE *(fr. **N**omenclatures des **A**ctivities de **C**ommunite **E**uropeene)* – Statistical Classification of Economic Activities in the European Community.

Describing the creativity and innovation demand in traditional business, it is also appropriate to identify whether (and to what extent) the companies of traditional businesses recognize the importance of collaboration with creative sector in order to overcome different type of challenges they are facing, including issues concerning product development, innovation, human resource development etc. For this purpose the qualitative interviews and focus groups were conducted with representatives of the creative and traditional companies, which provided more contextual information on the level of traditional-creative cooperation, allowed to identify the main motives and barriers of such cross-sectoral cooperation.

STATISTICS OF SELECTED TRADITIONAL BUSINESS ENTERPRISES

In 2016, Lithuanian business economy was made up of 4477 active local enterprises[21] operating in the sphere of the selected traditional businesses, excluding renewable energy production (i.e. maritime transport & shipbuilding and tourism[22]) with some 51387 persons employed (see Tables No. 2.1.-2.2.). The local traditional business enterprises of mentioned areas accounted for about 4,8 percent of all local companies operating in the country and employed about 5,5 percent of all persons employed in non-financial local business enterprises.

It should be noted that among the selected traditional businesses tourism companies dominate, which, according to 2016 data, made up 96 percent (4305 units) of all selected traditional business enterprises, while local companies of maritime transport and shipbuilding accounted for only 4 percent. (i.e., 172 units).

Analysing the selected traditional businesses, there is an overall increase in the number of people working in these sectors from 49111 in 2015 to 51387 in 2016; i.e. the number of people employed increased by 4,6 percent per year. However, it should be emphasized that the number of people working in Lithuanian local tourism enterprises has grown very fast – in 2015–2016 they increased by 5,2 percent (almost three times the overall growth rate of all other local enterprises). Meanwhile, the increase in the number of employees in maritime transport and shipbuilding companies was much slower – 0,5 percent over the same period.

[21] *The data presented reflect the statistics of business enterprises and their subdivisions, excluding self-employed persons. The statistics is presented at the local unit level. Due e to the clarity of the description, the term 'local enterprise' instead of the local unit is used. The local unit is defined as an enterprise or part thereof (e.g. a workshop, factory). The analysis of the local units/local enterprises focuses on the non-financial business sector.*

[22] *For the sake of clarity of the description, the local enterprises of these selected traditional business sectors will be referred to as traditional local enterprises, but it is important to emphasize that they represent only a part of the local traditional business sector companies.*

KLAIPEDA REGION

In Klaipeda Region, there were a total of 11 042 business enterprises, employing 111 815 people in 2016. This accounted for 11,8 percent of all Lithuanian business enterprises and 11,9 percent of those employed (see Tables 2.1–2.2). Comparing the years 2015 and 2016, the growth rate of local enterprises in Klaipeda Region was in line to the national average and made up 1,1 percent. However, the increase in the number of employees was higher than the average in Lithuania – the number of persons employed in the Klaipeda Region increased by 2,5 percent during the analysed period, while the Lithuanian average was 1,9 percent.

Table 2.1.
Dynamics of number of local enterprises (units), 2015-2016

		Number of all local enterprises	Number of tourism enterprises	Number of maritime transport and shipbuilding enterprises	Number of all selected traditional business enterprises
Lithuania	**2015**	92695	4249	170	4419
	2016	93718	4305	172	4477
Change in 2015-2015, %.		1,1	1,3	1,2	1,3
Klaipeda Region	**2015**	10921	605	137	742
	2016	11042	615	141	756
Change in 2015-2015, %.		1,1	1,7	2,9	1,9

Source: Lithuanian Department of Statistics

Looking at the companies of the selected traditional businesses, we can see that most of them (over 80%) in the Klaipeda region are local tourism companies. However, it should be emphasized that there are not many maritime transport and shipbuilding enterprises in Lithuania (there were 172 companies in 2016) and majority of them (141 local enterprises) operate in the Region. In other words, 82 percent of all Lithuanian maritime transport and shipbuilding companies are located in the Klaipeda region. In 2016, the number of tourism enterprises (representing selected traditional businesses) in Klaipeda Region was 615 and constituted 14,3 percent of all tourism enterprises in the country.

Table 2.2.
Dynamics of number of persons employed in local enterprises (units), 2015-2016.

		Number of persons employed in all enterprises	Number of persons employed in tourism enterprises	Number of persons employed in maritime transport and shipbuilding enterprises	Number of persons employed in all selected traditional business enterprises
Lithuania	**2015**	920537	43269	5842	49111
	2016	938234	45518	5869	51387
Change in 2015-2015, %.		1,9	5,2	0,5	4,6
Klaipeda Region	**2015**	109044	6199	5451	11650
	2016	111815	6503	5366	11869
Change in 2015-2015, %.		2,5	4,9	-1,6	1,9

Source: Lithuanian Department of Statistics

In 2016, 11869 persons were employed in the selected traditional business enterprises in the Klaipeda Region, i.e. 23,1 percent of all employed in the selected traditional businesses in Lithuania. By business sector, these employees were distributed as follows:

- 5366 persons were employed in maritime transport and shipbuilding enterprises, representing 91,4 percent of the country's employees in this economic activity;
- 6503 persons were occupied in tourism enterprises, i.e. 14,3 percent of the country's employees working in tourism sphere.

During the 2015-2016 period, the number of the selected traditional business companies and their units in Klaipeda Region increased by 2,2 percent, i.e. faster than the national average (1,3%). Although the increase in the number of local enterprises exceeded the national average in each of the selected traditional business sectors, the positive change in the number of maritime transport and shipbuilding companies was nevertheless more significant: in 2015-2016, the number of these enterprises in Lithuania increased by 1,2 percent, while in the region – by 2.9 per cent.

The total increase in the number of persons employed in all business enterprises in Klaipeda Region in 2015-2016 was faster than the national average (2.5 percent in Klaipeda Region and 1.9 percent in Lithuania). However, according to the increase in the number of persons employed in the enterprises of the selected traditional businesses, Klaipeda Region lagged behind the Lithuanian average. In Lithuania, the number of persons employed in all selected traditional business

enterprises increased by 4,6 percent in 2015-2016, while in Klaipeda Region only by 1,9 percent. This indicator was mainly

influenced by the decrease (-1,6%) in the number of persons employed in the Regional maritime transport and shipbuilding enterprises, as the growth of the number of persons employed in the Regional tourism enterprises was only slightly behind the national average (4,9% in Klaipeda Region and 5,2% in Lithuania).

Regarding the size (measured by the average number of persons employed in one company) of the selected traditional business enterprises in the Klaipeda Region, it can be said that according to the data of 2016, the Regional tourism enterprises were on average smaller than in Lithuania: in Klaipeda Region, one tourism company employed an average of 8,87 persons and in Lithuania 10,6 persons. However, the Region's maritime transport and shipbuilding enterprises were on average bigger than the national average (in Klaipeda Region, one maritime transport and shipbuilding enterprise employed an average of 38,1 persons, compared to 34,1 in the country).

In 2016, the total turnover of all companies in Klaipeda Region amounted to EUR 8763,636 million, i.e. 11,5 percent of the total domestic turnover of business enterprises, and their value added amounted to EUR 2055,818 million or 12,1 percent of value added created by all companies in the country (see Tables No. 2.3.–2.4.).

Table 2.3.
Turnover of local non-financial business enterprises, 2016.

	Turnover of all enterprises, million EUR	**Tourism enterprises**		**Maritime transport and shipbuilding enterprises**		**All selected traditional business enterprises**	
		Turnover, million EUR	Share of total business turnover, %	Turnover, million EUR	Share of total business turnover, %	Turnover, million EUR	Share of total business turnover, %
Lithuania	76423,728	1130,142	1,5	465,066	0,6	1595,208	2,1
Klaipeda Region	8763,636	130,453	1,5	441,04	5,0	571,493	6,5

Source: Lithuanian Department of Statistics

Table 2.4.
Value added at factor cost of local non-financial business enterprises, 2016.

	Value added of all enterprises, million EUR	**Tourism enterprises**		**Maritime transport and shipbuilding enterprises**		**All selected traditional business enterprises**	
		Value added, million EUR	Share of total business value added,%	Value added, million EUR	Share of total business value added,%	Value added, million EUR	Share of total business value added,%
Lithuania	17016,226	364,948	2,1	175,465	1,0	540,413	3,2
Klaipeda Region	2055,818	51,145	2,5	168,1	8,2	219,245	10,7

Source: Lithuanian Department of Statistics

The turnover of the selected traditional businesses enterprises in Klaipeda Region in 2016 was EUR 571,493 million and the added value was EUR 219,245 million. Compared to all local companies in the Region, the share of the turnover of the selected traditional business enterprises was 6,5 percent, and the value added amounted to 10,7 percent. This suggests, that selected traditional business enterprises generate relatively higher added value.

Particularly significant contributions to the Regional economy have come from local maritime transport and shipbuilding companies. In 2016, the turnover of these companies (EUR 441,04 million) was more than three times higher than the turnover of local tourism enterprises (EUR 130,453 million) and accounted for 5 percent of the total business turnover of the Region. Correspondingly, the total volume of added value generated by maritime transport and shipbuilding enterprises, compared to all companies in the Klaipeda Region, was higher than the added value generated by the Regional tourism enterprises and their units.

Assessing the ability of companies to create added value, it is useful to calculate which part of the turnover comes from the added value. In Klaipeda Region, according to the data of 2016, 23,5 percent of the total turnover of all local enterprises was generated by their added value, whereas selected traditional business enterprises created significantly higher value added – the ratio of turnover and value added was 38,4 percent. By distinguishing local enterprises according to the sector of economic activity, it can be said that the value added generated by Regional tourism enterprises accounted for 39,2 percent of turnover, while the value added generated by local maritime transport and shipbuilding enterprises accounted for 38,1 percent of turnover. Thus, although the overall value added of the different business sectors in the Region varies considerably

(depending on turnover), their ability to create added value is almost similar (it should be noted that the capacity of Regional tourism companies to create added value is even relatively higher).

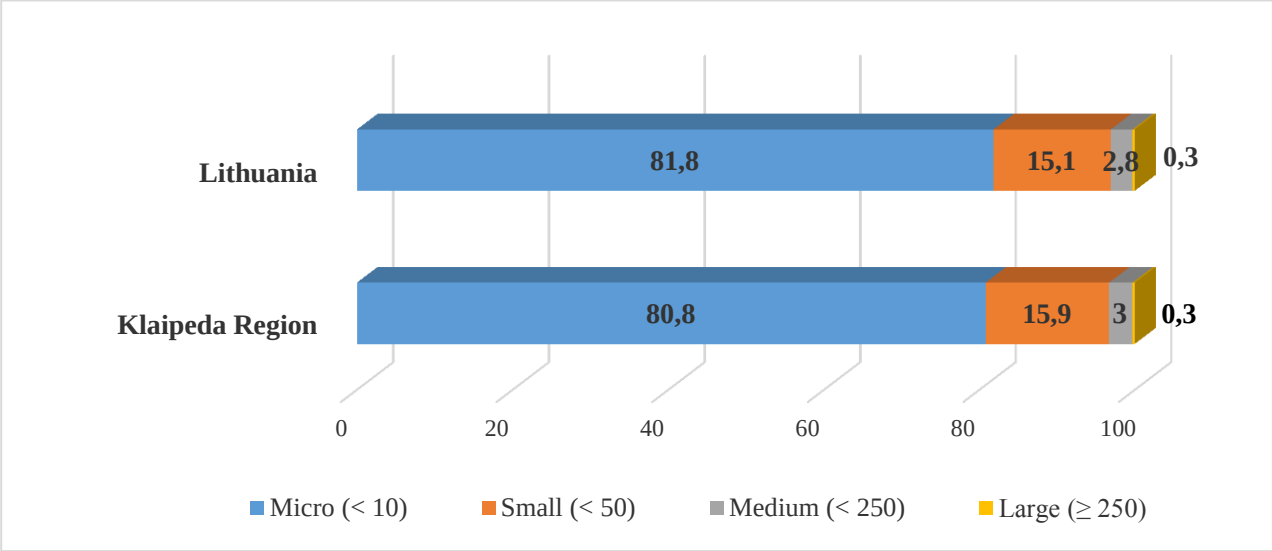
Considering the overall situation of business enterprises and their units, it is important to note that the vast majority (99,6%) of businesses operating in the Klaipeda Region (as well as in the country) are small and medium-sized enterprises (SMEs). Moreover, micro-enterprises with up to 10 employees dominate – in 2016, they accounted for 80,8 percent of all local businesses in the Region (see Table 2.5. and Figure 2.1). Compared to the Lithuanian average, in 2016 the number of micro-enterprises in Klaipeda Region was slightly lower (the national average was 81,8%) and, subsequently, the number of small-sized enterprises was a bit higher than the average in Lithuania (see Figure 2.1.).

Table 2.5.
Number of local business enterprises (units) by enterprise size class, 2016[23].

Size class of enterprise	Lithuania		Klaipeda Region	
	2015	2016	2015	2016
Micro (< 10)	75811	76660	8858	8929
Small (< 50)	14025	14148	1724	1752
Medium (< 250)	2545	2589	303	329
SMEs	**92381**	**93397**	**10885**	**11010**
Large (≥ 250)	314	321	36	32
Total	**92695**	**93718**	**10921**	**11042**

Source: Lithuanian Department of Statistics

Figure 2.1.
Share of business enterprises and their units by enterprise size class in 2016, %.



Source: Lithuanian Department of Statistics

[23] *The enterprise size class is determined according to the number of persons employed.*

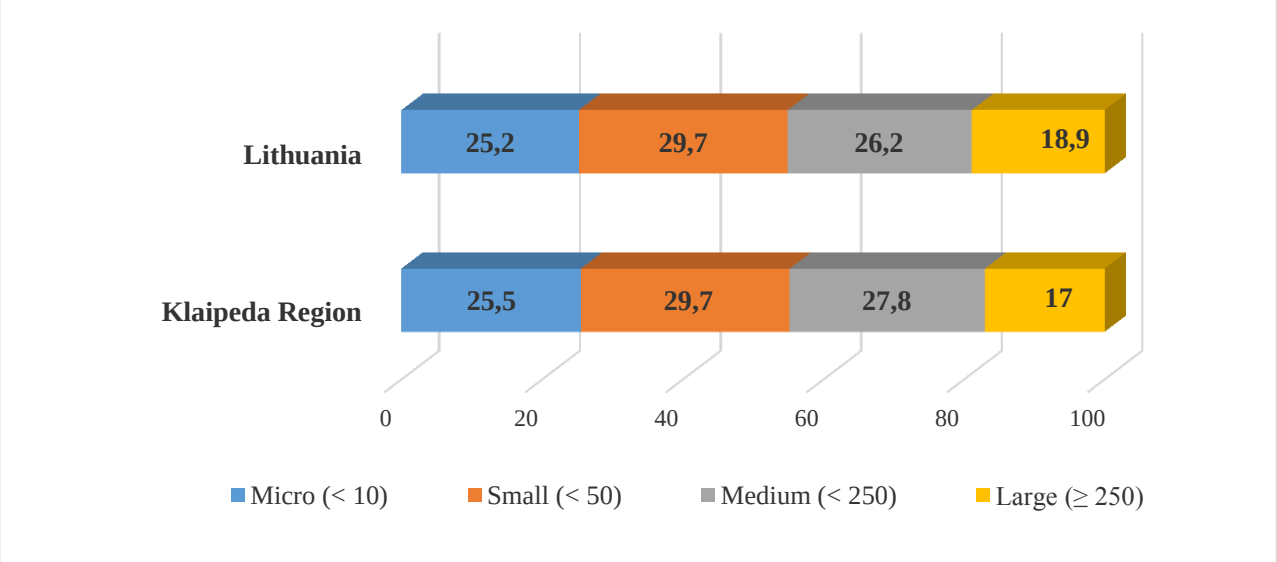
In 2016, 11042 local enterprises operating in the Klaipeda Region employed 111815 people, i.e. on average, 10 people worked in one company, which corresponds to the national average (see Tables 2.5.–2.6.). The majority of the Region's employees were employed by small (29,7%) and medium-sized (27,8%) local enterprises, although local micro enterprises have also created more than a quarter of jobs (25,5%) (see Figure 2.2.). Large companies of Klaipeda Region employed relatively fewer people (17%) than the average in Lithuania (18,9%).

Table 2.6.
Number of persons employed in local business enterprises (units) by enterprise size class.

Size class of enterprise	Lithuania		Klaipeda Region	
	2015	2016	2015	2016
Micro (< 10)	232947	236883	28233	28472
Small (< 50)	275726	278894	32939	33235
Medium (< 250)	241027	245447	28619	31151
SMEs	**749700**	**761224**	**89791**	**92858**
Large (≥ 250)	170837	177010	19253	18957
Total	**920537**	**938234**	**109044**	**111815**

Source: Lithuanian Department of Statistics

Figure 2.2.
Share of persons employed in business enterprises by enterprise size class in 2016, %.



Source: Lithuanian Department of Statistics

Maritime transport &shipbuilding and tourism enterprises in Lithuania are also mostly represented by micro-enterprises. However, among the selected traditional companies of Klaipeda Region, micro

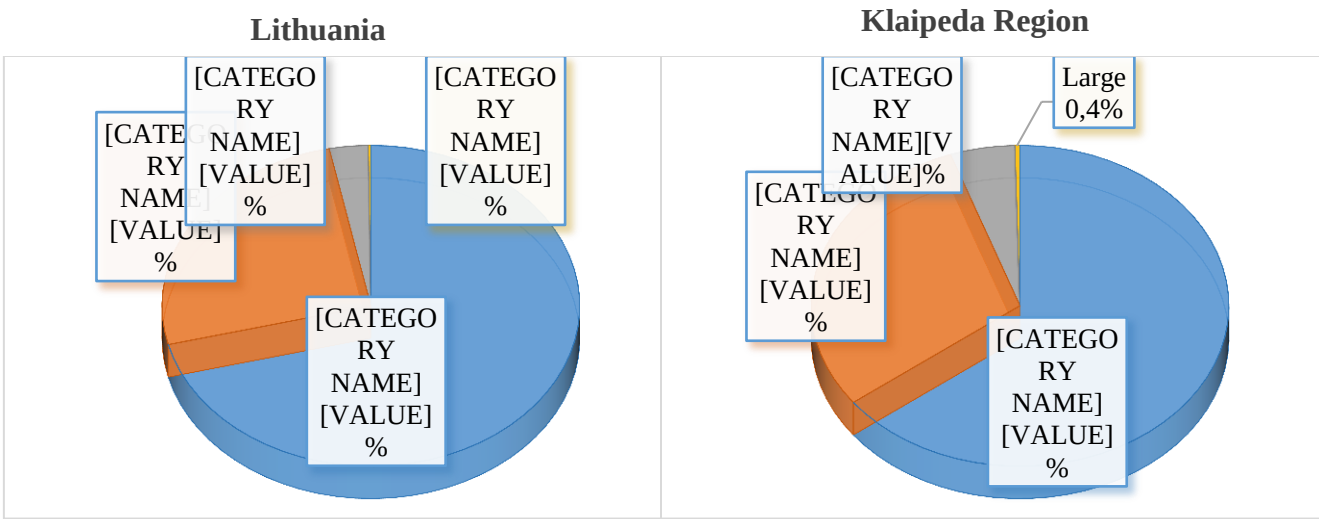
enterprises make up a relatively smaller share than the national average. In 2016, micro enterprises in Klaipeda Region accounted for 64,7 percent of all selected traditional business enterprises, while in the country 71,1 percent (see Table 2.7 and Figure 2.3). Consequently, the share of small, medium and large traditional enterprises in the Klaipeda Region exceeded the national average. These tendencies are largely determined by the fact that sea transport and shipbuilding companies (which are quite significant in Klaipeda Region) are usually larger than tourism companies.

Table 2.7.
Number of the selected traditional business enterprises (units) by enterprise size class, 2016.

Size class of enterprise	Lithuania		Klaipeda Region	
	Numb.	% of total	Numb.	% of total
Micro (< 10)	3183	71,1	489	64,7
Small (< 50)	1149	25,7	226	29,9
Medium (< 250)	136	3,0	38	5,0
SMEs	**4468**	**99,8**	**753**	**99,6**
Large (≥ 250)	9	0,2	3	0,4
Total	**4477**		**756**	

Source: Lithuanian Department of Statistics

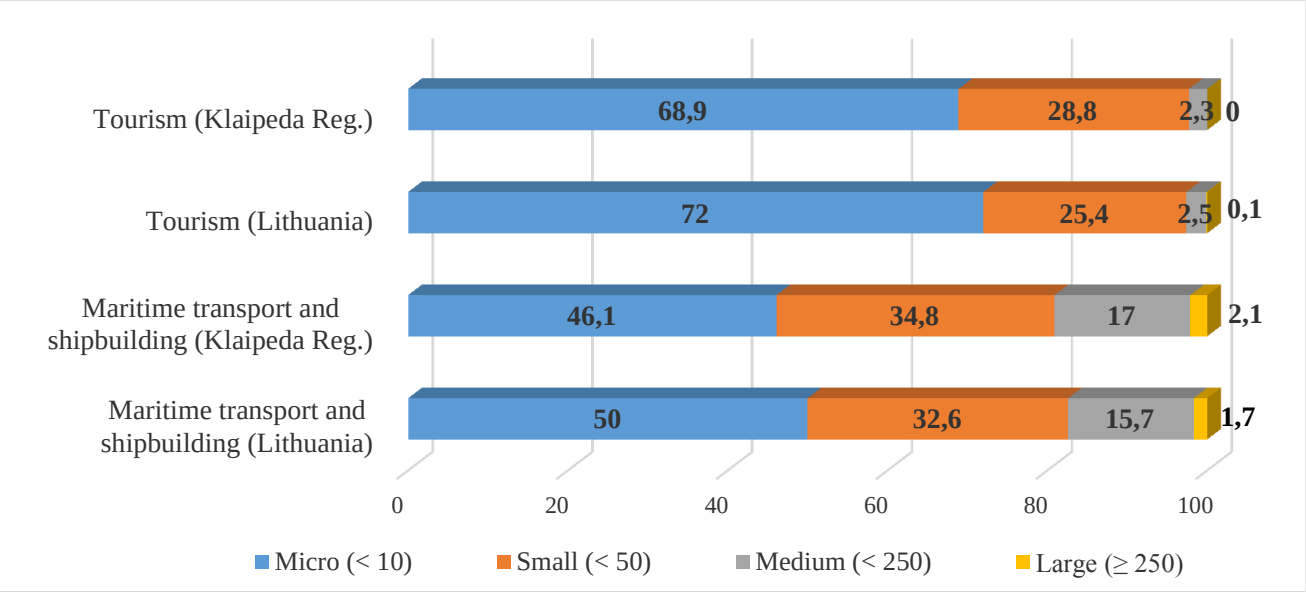
Figure 2.3.
Share of selected traditional business enterprises (units) by enterprise size class in 2016.



Source: Lithuanian Department of Statistics

Distinguishing traditional businesses by sector of their economic activity, it can be seen that maritime transport and shipbuilding companies are quite different from tourism enterprises by size class. As has already been noted, the share of micro-enterprises in the maritime transport and shipbuilding companies of the Klaipeda region is much smaller and the proportion of small, medium-sized and large companies is higher than in the case of tourism companies (see Figure 2.4.). This is a general trend for Lithuania as a whole.

Figure 2.4.
Share of operating maritime transport& shipbuilding and tourism enterprises by size class in 2016, %.



Source: Lithuanian Department of Statistics

Analysing such an important factor of economic growth as the birth[24] of new businesses, we can see that in 2016, 5320 new companies, which created 5346 jobs, were registered in the Klaipeda Region (see Table No. 2.8.). This accounted for about 11 percent of all businesses started in the country and people employed there. In both Lithuania and Klaipeda Region, all newly established companies employed on average 1 person per enterprise.

[24] *New business registrations are referred to as business births.*

Table 2.8.
Number of newly-born enterprises and persons employed in the population of births, 2016

		Lithuania	Klaipeda Region
All local enterprises	Number of newly established enterprises	46669	5320
	Number of persons employed in newly established enterprises	48038	5346
	Average size of newly established enterprises (person per enterprise)	1,0	1,0
Maritime transport and shipbuilding enterprises	Number of newly established enterprises	14	10
	Number of persons employed in newly established enterprises	59	49
	Average size of newly established enterprises (person per enterprise)	4,2	4,9
Tourism enterprises	Number of newly established enterprises	922	138
	Number of persons employed in newly established enterprises	2701	414
	Average size of newly established enterprises (person per enterprise)	2,9	3,0
Selected traditional business enterprises in total s	Number of newly established enterprises	936	148
	Number of persons employed in newly established enterprises	2760	463
	Average size of newly established enterprises (person per enterprise)	2,9	3,1

Source: Lithuanian Department of Statistics

In 2016, 936 enterprises of the selected traditional businesses were established across the country, including 14 in maritime transport and shipbuilding and 922 in tourism. These companies have created 2760 new jobs: 59 jobs in new maritime and shipbuilding companies and 2701 jobs in tourism companies.

In the same period, 148 selected traditional business companies started operations in Klaipeda region. Among them were 10 new maritime transport and shipbuilding enterprises and 138 tourism companies. These companies accounted for 15,8 percent of all newly registered traditional businesses in Lithuania and created 463 jobs or 16,8 percent of all jobs in newly established traditional businesses in the country.

The fact that, compared to the national level, the percentage of new traditional business enterprises in the Klaipeda Region is lower than the proportion of people employed in them shows that the size of a newly established traditional businesses in the Klaipeda Region is bigger than the average in Lithuania. In Lithuania, the average size of a newly registered tourism company in 2016 was 2,9 persons per 1 company, while in Klaipeda Region – 3 employees per 1 enterprise; newly established

national maritime transport and shipbuilding companies employ an average of 4,2 persons in 1 company, and in Klaipeda Region 4,9 persons in 1 company.

Business dynamism can be defined by the number of high-growth enterprises.[25] In 2016, 1940 Lithuanian business enterprises were recognized as high growing, including 132 traditional business enterprises, i.e. 121 tourism companies and 11 maritime transport and shipbuilding companies (see Table No. 2.9.).

Table 2.9.
The number of high-growth enterprises, 2016.

	All business enterprises	Tourism enterprises		Maritime transport and shipbuilding enterprises		All selected traditional business enterprises	
		Numb.	% of total	Numb.	% of total	Numb.	% of total
Lithuania	1940	121	6,2	11	0,6	132	6,8
Klaipeda Region	225	18	8,0	8	3,6	26	11,6

Source: Lithuanian Department of Statistics

In 2016, 225 Klaipeda Region companies were recognized as fast growing (11,6% of the country's fast growing companies), including 18 tourism business companies (14,9% of the country's fast growing tourism companies) and 8 maritime transport and shipbuilding companies (74,7% of the country's fast-growing maritime and shipbuilding companies).

Renewable energy production plants in the Klaipeda Region

It has already been mentioned that the Statistical Classification of Economic Activities (NACE) does not allow the identification of renewable energy producers, and furthermore, the Lithuanian Department of Statistics does not collect regional data at all, so data on renewable energy companies, employees or turnover are available only at national level (see Annex No. 1.).

The Energy Agency, acting under the Ministry of Energy of the Republic of Lithuania, is the only source that provides information on renewable energy production companies at regional level.

[25] *A high growth enterprise is a company whose growth rate over three years exceeds an average of 10 percent annually (growth is measured by the number of people employed).*

According to the data of the Energy Agency[26], there are currently 416 renewable energy plants in Klaipeda Region, which makes 10,9 percent of all Lithuanian power plants. Among them, 342 (i.e. 82,2% of power plants in the Region) use solar energy and 47 plants (11,3%) use wind power (see Table No. 2.10.). 18 producers (4,3%) generate energy from wood and wood waste. There are also 5 hydroelectric power plants in the Region, 1 biogas power plant (Dumpiai wastewater treatment plant), Glaudėnai landfill power plant using landfill gas. Klaipeda Region is the only one in Lithuania that has a municipal waste-using power plant (Klaipeda city) and a geothermal heat pump (Neringa, Nida).

Table 2.10.
Number of plants, their installed thermal and electrical capacity by renewable energy sector in Klaipeda Region at the end of 2018.

Energy source	Number of power plants			Installed thermal power, MW			Installed electricity power, MW		
	Total	Manufacturers	Producing users	Total	Manufacturers	Producing users	Total	Manufacturers	Producing users
Biogas	1	1	0	0,886	0,886	0	0,654	0,654	0
Geothermal energy	1	1	0	0,082	0,082	0	0	0	0
Hydro energy	5	5	0	0	0	0	0,809	0,809	0
Landfill gas	1	1	0	0	0	0	1,64	1,64	0
Municipal waste	1	1	0	0	0	0	20	20	0
Solar energy	342	223	119	0	0	0	8,789	7,976	0,813
Straw	0	0	0	0	0	0	0	0	0
Wind energy	47	47	0	0	0	0	246,909	246,909	0
Wood and wood waste	18	18	0	99,690	99,690	0	1,5	1,5	00
Total	**416**	**297**	**119**	**100,658**	**100,658**	**0**	**280,301**	**279,488**	**0,813**

In the Region, as in the rest of the country, the highest installed electricity capacity is in wind power plants (246,909 MW), accounting for 88 percent of the total installed Region's electrical capacity. The total installed electrical capacity of the region's renewable energy sources amounts to 280,301 MW or 32,5 percent of the country's total installed electrical capacity.

The heat capacity installed in the Klaipeda Region is derived from biogas, geothermal energy and wood. However, wood and wood waste energy is absolutely dominant – it accounts for 99 percent of the total installed heat capacity in the Region. The installed heat capacity in Klaipeda Region reaches 100,658 MW or 20,7 percent of the total installed heat capacity in Lithuania.

[26] *http://www.avei.lt/en/energy-resources*

TELŠIAI REGION

In Telšiai Region, there were a total of 3354 business enterprises, employing 37051 people in 2016. This accounted for 3,6 percent of all Lithuanian business enterprises and 3,9 percent of those employed (see Tables 2.11.–2.12.). Comparing the years 2015 and 2016, the growth rate of local enterprises in Telšiai Region was slightly lower (0,7 percent) than the national average (1,1 percent). The increase in the number of persons employed was also slower – in Telšiai Region it increased by 1,7 percent during the analysed period, while the average for Lithuania was 1,9 percent.

Table 2.11.
Dynamics of number of local enterprises (units), 2015-2016.

		Number of all local enterprises	Number of tourism enterprises	Number of maritime transport and shipbuilding enterprises	Number of all selected traditional business enterprises
Lithuania	**2015**	92695	4249	170	4419
	2016	93718	4305	172	4477
Change in 2015-2015, %.		1,1	1,3	1,2	1,3
Telšiai Region	**2015**	3330	136	0	136
	2016	3354	139	0	139
Change in 2015-2015, %.		0,7	2,2	0,0	2,2

Source: Lithuanian Department of Statistics

Table 2.12.
Dynamics of number of persons employed in local enterprises (units), 2015-2016.

		Number of persons employed in all enterprises	Number of persons employed in tourism enterprises	Number of persons employed in maritime transport and shipbuilding enterprises	Number of persons employed in all selected traditional business enterprises
Lithuania	**2015**	920537	43269	5842	49111
	2016	938234	45518	5869	51387
Change in 2015-2015, %.		1,9	5,2	0,5	4,6
Telšiai Region	**2015**	36436	967	0	967
	2016	37051	1002	0	1002
Change in 2015-2015, %.		1,7	3,6	0,0	3,6

Source: Lithuanian Department of Statistics

When analysing the companies of the selected traditional businesses, it is evident that in Telšiai Region there are no companies that have declared that they are engaged in maritime transport and shipbuilding activities. Thus, traditional businesses in the Region are represented mainly by local tourism companies (and renewable energy companies, whose statistics is presented separately), the number of which in 2016 was 139, which accounted for 3,2 percent of the total country's tourism enterprises and their units. In 2016, there were 1002 persons working in these companies in the Region, i.e. 2,2 percent of all employed in Lithuanian tourism companies.

During the 2015-2016 period, the number of the selected traditional business enterprises (in this case, it only concerns tourism companies) in Telšiai region increased by 2,2 percent, i.e. faster than the national average (1,3%). Nevertheless, even though the growth of the number of persons employed in these enterprises was faster (3,6%), it lagged behind the average growth rate of employees of Lithuanian tourism enterprises (5,2%).

The fact that the Telšiai region is characterized by a faster growth of the number of selected traditional business enterprises than the national average, but slower than the average increase in the number of employees, is explained by the size of local enterprises. In 2016, an average of 11,5 persons were employed in one selected traditional business enterprise in Lithuania, whereas in Telšiai Region the average size of the selected traditional business enterprise was 7,2 employees.

In 2016, the total turnover of all companies in Telšiai Region amounted to EUR 5149,183 million, i.e. 6,7 percent of the total domestic turnover of business enterprises, and their value added amounted to EUR 720,999 million or 4,2 percent of value added created by all companies in the country (see Tables No. 2.13.–2.14.).

Table 2.13.
Turnover of local non-financial business enterprises, 2016.

	Turnover of all enterprises, million EUR	**Tourism enterprises**		**Maritime transport and shipbuilding enterprises**		**All selected traditional business enterprises**	
		Turnover, million EUR	Share of total business turnover, %	Turnover, million EUR	Share of total business turnover, %	Turnover, million EUR	Share of total business turnover, %
Lithuania	76423,728	1130,142	1,5	465,066	0,6	1595,208	2,1
Telšiai Region	5149,183	14,2	0,3	0	0	14,2	0,3

Source: Lithuanian Department of Statistics

The turnover of the selected traditional businesses (tourism) enterprises in Telšiai Region in 2016 was EUR 14,2 million and the added value was EUR 5,1 million. Compared to all local companies in the Region, the share of the turnover of the selected traditional business enterprises was 0,3 percent, and the value added amounted to 0,7 percent. This suggests, that selected traditional business (tourism) enterprises generate relatively higher added value.

Table 2.14.
Value added at factor cost of local non-financial business enterprises, 2016.

	Value added of all enterprises, million EUR	**Tourism enterprises**		**Maritime transport and shipbuilding enterprises**		**All selected traditional business enterprises**	
		Value added, million EUR	Share of total business value added,%	Value added, million EUR	Share of total business value added,%	Value added, million EUR	Share of total business value added,%
Lithuania	17016,226	364,948	2,1	175,465	1,0	540,413	3,2
Telšiai Region	720,999	5,1	0,7	0	0,0	5,1	0,7

Source: Lithuanian Department of Statistics

In order to assess the ability of companies to create added value, it is appropriate to calculate which part of the turnover comes from the added value. In Telšiai Region, according to the data of 2016, 14 percent of the total turnover of all local enterprises was generated by their added value, whereas selected traditional business enterprises (tourism) created significantly higher value added – the ratio of turnover and value added was 35,9 percent.

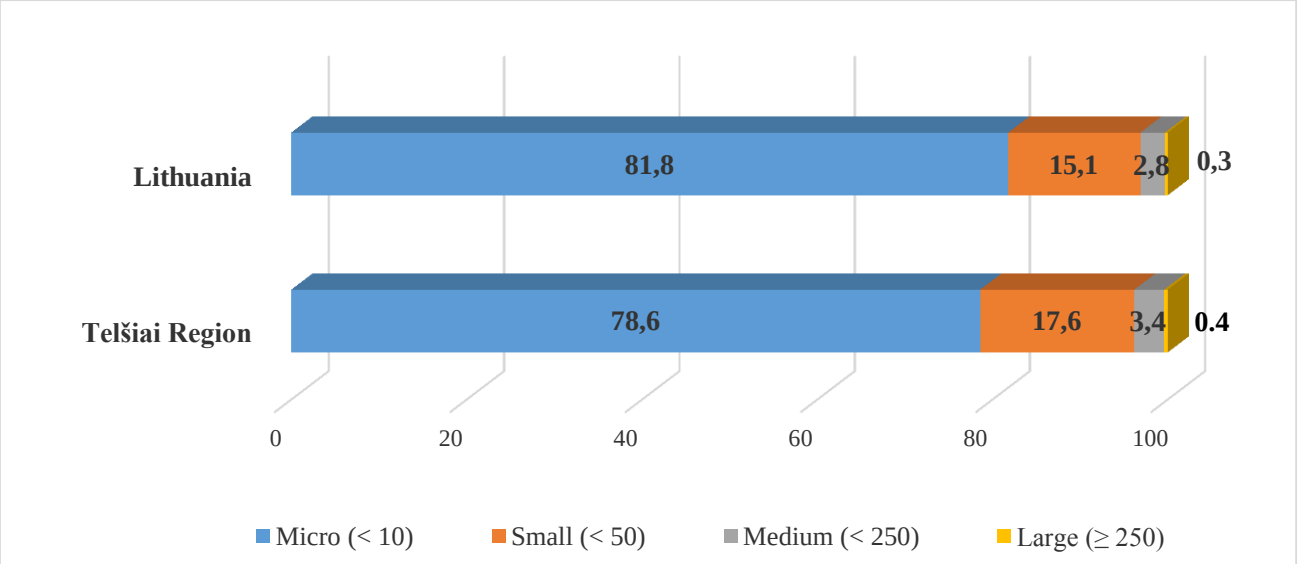
When assessing the general situation of business enterprises and their units, it is important to note that the vast majority (99,6%) of businesses operating in the Telšiai Region (almost the same as the national average) are small and medium-sized enterprises (SMEs). Moreover, micro-enterprises with up to 10 employees dominate, in 2016, they accounted for 78,6 percent of all local businesses in the Region (see Table 2.15. and Figure 2.5.). Compared to the Lithuanian average, in 2016 the number of micro-enterprises in Telšiai Region was lower (the national average was 81,8%) and, subsequently, the number of small and medium-sized enterprises in the Region was higher than the average in Lithuania (see Figure 2.5.).

Table 2.15.
Number of local business enterprises by enterprise size class[27].

Size class of enterprise	Lithuania		Telšiai Region	
	2015	2016	2015	2016
Micro (< 10)	75811	76660	2645	2638
Small (< 50)	14025	14148	561	591
Medium (< 250)	2545	2589	111	113
SMEs	**92381**	**93397**	**3317**	**3342**
Large (≥ 250)	314	321	13	12
Total	**92695**	**93718**	**3330**	**3354**

Source: Lithuanian Department of Statistics

Figure 2.5.
Share of business enterprises and their units by enterprise size class in 2016, %



Source: Lithuanian Department of Statistics

All 3354 Telšiai Region local enterprises employed 37051 people in 2016, i.e. on average, 11 people per company. In Lithuania, on average, there were 10 people per company (see Tables 2.15. –2.16.). The majority of the Region's employees were employed by small (30,9%) and medium-sized (28,5%) local enterprises, although local micro enterprises have also created nearly a quarter of jobs (23,4%) (see Figure 2.6.). Large companies of Telšiai Region employed relatively fewer people (16,9%) than the average in Lithuania (18,9%).

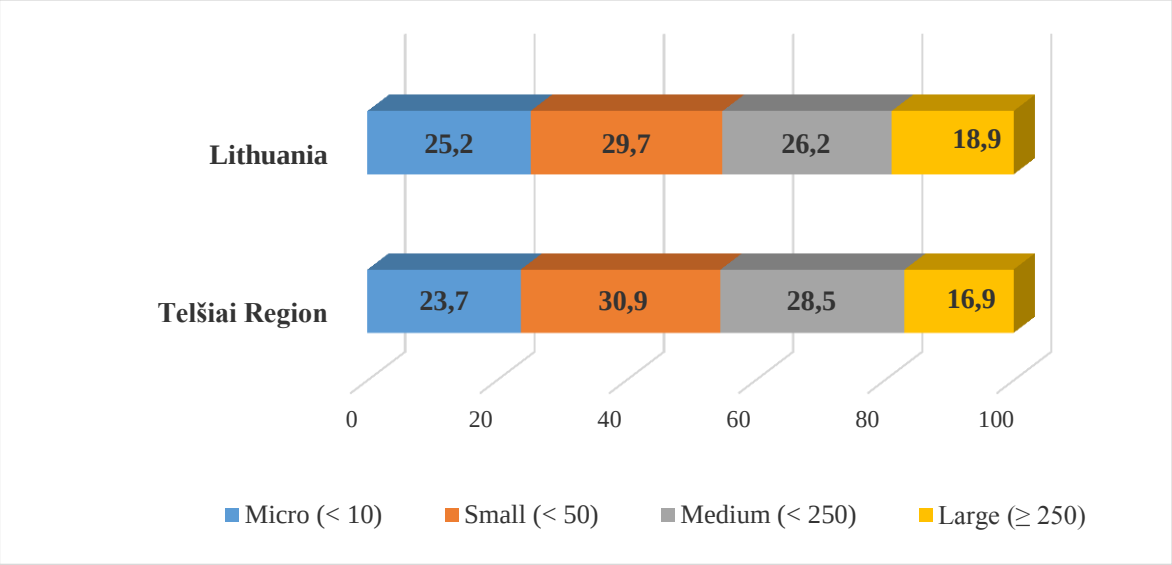
[27] *The enterprise size class is determined according to the number of persons employed.*

Table 2.16.
Number of persons employed in local business enterprises (units) by enterprise size class.

Size class of enterprise	Lithuania		Telšiai Region	
	2015	2016	2015	2016
Micro (< 10)	232947	236883	8719	8780
Small (< 50)	275726	278894	11154	11467
Medium (< 250)	241027	245447	10227	10556
SMEs	**749700**	**761224**	**30100**	**30803**
Large (≥ 250)	170837	177010	6336	6248
Total	**920537**	**938234**	**36436**	**37051**

Source: Lithuanian Department of Statistics

Figure 2.6.
Share of persons employed in business enterprises by enterprise size class in 2016, %.



Source: Lithuanian Department of Statistics

The selected traditional business enterprises (maritime transport &shipbuilding and tourism) in Lithuania were also mostly represented by micro-enterprises. In 2016, micro enterprises in Lithuania accounted for 71,1 percent, and in Telšiai Region 77,7 percent of all selected traditional business enterprises (see Table 2.17. and Figure 2.7.).

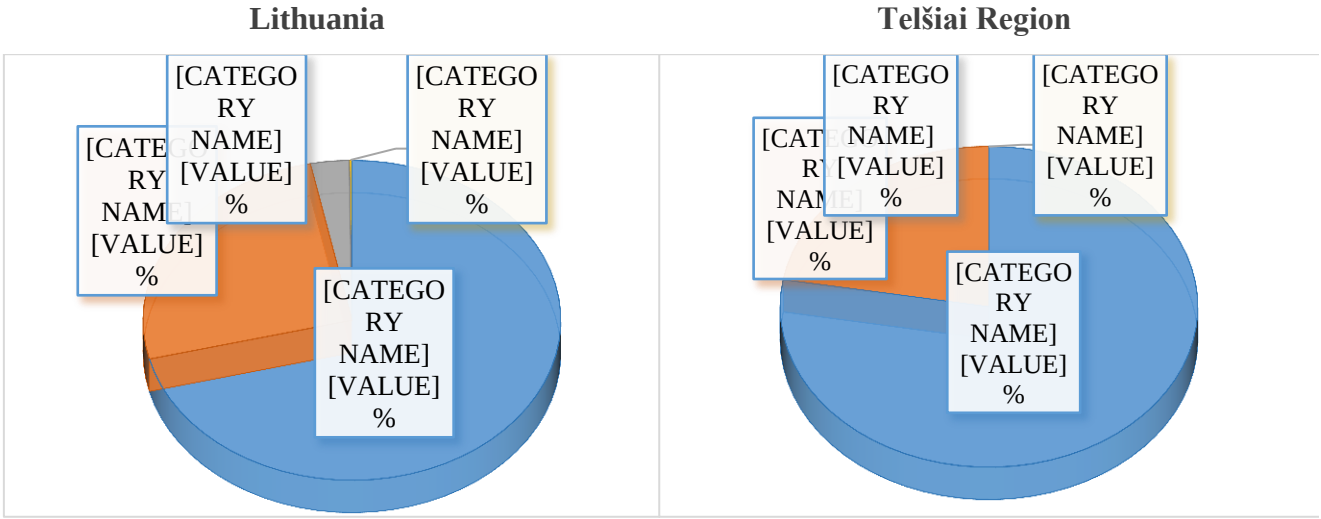
The share of small-sized enterprises among the selected traditional businesses in Telšiai Region was 22,3 percent and it was lower than the Lithuanian average, which in 2016 was 25,7 percent. There were no medium-sized (< 250 employees) and large enterprises (≥ 250 employees) operating in economic activities related to the selected traditional businesses (tourism) in Telšiai Region in 2016.

Table 2.17.
Number of selected traditional business enterprises (units) by enterprise size class, 2016.

Size class of enterprise	Lithuania		Telšiai Region	
	Numb.	% of total	Numb.	% of total
Micro (< 10)	3183	71,1	108	77,7
Small (< 50)	1149	25,7	31	22.3
Medium (< 250)	136	3,0	0	0
SMEs	**4468**	**99,8**	**139**	**100**
Large (≥ 250)	9	0,2	0	0
Total	**4477**		**139**	

Source: Lithuanian Department of Statistics

Figure 2.7.
Share of selected traditional business enterprises (units) by enterprise size class in 2016.



Source: Lithuanian Department of Statistics

The birth[28] of new businesses is often seen as one of the main drivers of job creation and economic growth. In 2016, a total of 1752 new companies were registered in the Telšiai Region, with 1794 jobs created, which accounted for about 3,7 percent of all country's business start-ups and people employed therein (see Table No. 2.18.). In Telšiai Region, the average size of enterprises established in 2016 was in line with the overall situation in the country and made up 1 person per enterprise.

In 2016, 936 enterprises of the selected traditional business sectors were established across the country, including 14 in the field of maritime transport&shipbuilding and 922 in tourism. These

[28] *New business registrations are referred to as business births.*

companies have created 2760 new jobs: 59 jobs were created by newly established maritime transport and shipbuilding companies and 2701 jobs by tourism enterprises.

During the analysed period, 40 enterprise occupied in the areas of the selected traditional businesses (consisting of only tourism companies) started operating in Telšiai Region. These companies accounted for 4,3 percent of the total number of newly established companies operating in selected traditional businesses in Lithuania and have created 76 jobs, or 2,8 percent of all jobs in newly born so-called "traditional business" companies in the country.

The fact that, compared to the national level, the percentage of new traditional business enterprises in the Telšiai Region is higher than the proportion of people employed in them shows that the size of a newly established traditional business in the Telšiai region is smaller than the average in Lithuania. This is partly due to the absence of maritime transport and shipbuilding companies in the Region, as newly established maritime transport and shipbuilding companies employ more people than tourism companies – on average 4,2 employees per 1 company. However, the size of tourism companies in Telšiai Region is also lower than the national average. In Lithuania, the average size of a newly registered tourism company in 2016 was 2,9 person per 1 company, while in Telšiai Region – 1,9 employees per 1 enterprise.

Table 2.18.
Number of newly-born enterprises and persons employed in the population of births, 2016.

		Lithuania	Telšiai Region
All local enterprises	Number of newly established enterprises	46669	1752
	Number of persons employed in newly established enterprises	48038	1794
	Average size of newly established enterprises (person per enterprise)	1,0	1,0
Maritime transport and shipbuilding enterprises	Number of newly established enterprises	14	0
	Number of persons employed in newly established enterprises	59	0
	Average size of newly established enterprises (person per enterprise)	4,2	0
Tourism enterprises	Number of newly established enterprises	922	40
	Number of persons employed in newly established enterprises	2701	76
	Average size of newly established enterprises (person per enterprise)	2,9	1,9
Selected traditional business enterprises in total s	Number of newly established enterprises	936	40
	Number of persons employed in newly established enterprises	2760	76
	Average size of newly established enterprises (person per enterprise)	2,9	1,9

Source: Lithuanian Department of Statistics

Business dynamism can be defined by the number of high-growth enterprises. A high growth enterprise is a company whose growth rate over three years exceeds an average of 10 percent annually (growth is measured by the number of people employed).

In 2016, 1940 Lithuanian business enterprises were recognized as high growing, including 132 traditional business enterprises, i.e. 121 tourism companies and 11 maritime transport and shipbuilding companies (see Table No. 2.19.). In Telšiai Region, there were 50 fast growing companies, which accounted for 2,6 percent of the country's high-growth companies. Only 1 of these companies represented the selected traditional businesses (namely tourism).

Table 2.19.
The number of high-growth enterprises, 2016.

	All business enterprises	Tourism enterprises		Maritime transport and shipbuilding enterprises		All selected traditional business enterprises	
		Numb.	% of total	Numb.	% of total	Numb.	% of total
Lithuania	1940	121	6,2	11	0,6	132	6,8
Telšiai Region	50	1	2,0	0	0,0	1	2,0

Source: Lithuanian Department of Statistics

Renewable energy production plants in the Telšiai Region

It has already been mentioned that data on renewable energy companies, employees or turnover are available only at national level (see Annex No. 1.). The Energy Agency, acting under the Ministry of Energy of the Republic of Lithuania, is the only source that provides information on renewable energy production companies at regional level.

According to the data of the Energy Agency[29], there are currently 460 renewable energy plants in Telšiai Region, which makes 12 percent of all Lithuanian power plants. Among them, 392 (i.e. 85% of power plants in the Region) use solar energy, 29 energy producers (i.e. 6%) use wood and wood waste. 4,6 percent of the Region's renewable energy plants are hydropower, and there are also 17 wind power plants (see Table No. 2.20.).

[29] *http://www.avei.lt/en/energy-resources*

Table 2.20.
Number of plants, their installed thermal and electrical capacity by renewable energy sector in Telšiai Region at the end of 2018.

Energy source	Number of power plants			Installed thermal power, MW			Installed electricity power, MW		
	Total	Manufacturers	Producing users	Total	Manufacturers	Producing users	Total	Manufacturers	Producing users
Biogas	1	1	0	0	0	0	0,400	0,400	0
Geothermal energy	0	0	0	0	0	0	0	0	0
Hydro energy	21	21		0	0	0	5,514	5,514	0
Landfill gas	0	0	0	0	0	0	0	0	0
Municipal waste	0	0	0	0	0	0	0	0	0
Solar energy	392	304	88	0	0	0	12,946	12,096	0,850
Straw	0	0	0	0	0	0	0	0	0
Wind energy	17	17	0	0	0	0	53,550	53,550	0
Wood and wood waste	29	29	0	43,575	43,575	0	1	1	0
Total	460	372	88	43,575	43,575	0	73,410	72,560	0,850

In the Region, as in the rest of the country, the highest installed electricity capacity is in wind power plants (53,550 MW), accounting for 72,9 percent of the total electrical power installed in the Region. The total installed electrical capacity of the Region's renewable energy sources amounts to 73,410 MW or 8,5 percent of the country's total installed electrical capacity.

The installed thermal capacity in the Telšiai Region is derived from wood and wood waste. It accounts for 43,575 MW or 9 percent of the total installed thermal capacity in Lithuania.

Qualitative research with representatives of traditional businesses in Klaipeda and Telšiai Regions

Qualitative research was considered appropriate to look at the problem of traditional-creative cooperation from the point of view of the representatives of traditional businesses. The research sought to identify whether and to what extent traditional businesses recognize the importance of cooperation with the creative sector, to reveal motivations and barriers that encourage or hinder such cooperation. The methodology of qualitative research (for more details see Appendix No. 2.) included 9 semi-structured interviews (interview guidelines and list of informants see in Annex No. 3.) and focus group discussion (the themes of focus group discussions see in Annex No. 4.) with traditional business representatives from Klaipeda and Telšiai Regions.

When discussing the need for creativity and innovation of traditional businesses in Klaipeda and Telšiai Regions, the interviewees noted that the situation is not unambiguous. It has been said that traditional business is not interested in more creative solutions because *"innovation in the market does not matter" [KL2]*, *"the customer does not always need innovation" [FG-1]*. On the other hand, the refusal of creative sector services is often explained by the limited financial capacity of traditional businesses *"some businesses can't afford much because they live from wages to wages" [Telš-4]*. This is especially true for smaller companies. Larger companies have indicated that they usually have their own creative staff, such as designers, IT specialists *"we need to have creators, we have everything from designers to programmers" [KL-3]*. It was noted that *"inviting external specialists in Lithuania is not common (which is more usual abroad), bigger companies have their own specialists*" *[KL-3]*. However, representatives of both small and larger traditional businesses have emphasized that potential financial support would be a significant incentive to strengthen cooperation between traditional and creative sectors.

The representatives of the traditional business who said that their company uses the services of the creative sector indicated that the creators are usually used for the purpose of representing the company: *"when we need to create a logo or website design" [FG-1]*, *"we contacted when we wanted to create a movie about the company" [Telš-2]*; as well for the purpose of improving environment (design, architecture): "*when we need to design something, we turn to the architects – we think about what we need and formulate the tasks" [KL-3]*. Another aspect of the use of the creative sector in traditional business enterprises is related to the human resources development:

"for example, team building events take place" [FG-1], or to social activity of the company: *"we appeal to the creators for organizing events or looking for event hosts, presenters" [KL-3]*.

However, the informants hardly perceived the role of the creative sector when dealing directly with the issues concerning company's products or services development: *"I don't even imagine how they could be applied to the main activities of the company" [KL-3]*. This opinion has formed due to the view that the creative sector lacks understanding of the specifics of a traditional business and widespread belief that *"the creator should be practically related to a specific area of traditional business" [Telš-2]*. Therefore, traditional business tends to believe that it is able to cope with emerging problems itself: *"business thinks for itself" [KL-3], "many creative people work in our company" [Telš-2]*.

On the other hand, traditional business admits that while business is successful, the need for innovation or creative solution is not relevant, it arises when businesses start to face difficulties: *"everything is fine for us, we manage to control the flows, so no help is needed" [KL-3], "the need for creators becomes relevant when stagnation occurs, whether it is internal stagnation of a company, or market stagnation" [FG-1]*.

A cautious (and often sceptical) attitude of the traditional business to the representatives of creative sector is related to the fact that the competence of the creators does not always correspond to the expectations of the traditional business: *"the creative sector's representatives are not necessarily a creators – they can be non-creative" [Telš-2]*. Moreover, traditional business does not always accept the special way creators see the world and engage in business: *"creative people are too relaxed" [Telš-4]*.

Representatives of traditional business stressed that they are not satisfied with creative sector's attitude "you are business – so give" and with the lack of feedback from creators, when support is expected from them and nothing is offered in return: *"for example actors charge a maximum fee for organizing an event, although our company is sponsoring a theatre" [KL-3]*. From a traditional business point of view, closer cooperation between the traditional and creative sectors would be driven by a greater focus of the creative sector on the needs of traditional business: *"you create and come up with a suggestion" [KL-3]*.

When considering what would stimulate the need for traditional business to look for creative solutions and what tools would be effective in strengthening the links between traditional and

creative businesses, it was noted that trainings inspiring innovation are important *("inspiring trainings" [FG-1]*), although it was regretted that companies are sending those representatives to training who do not make decisions: *"the problem is that business executives often do not attend training or exhibitions, but send ordinary employees who are not decision makers" [Telš-3]*. Also, many interviewees and focus group participants agreed that cooperation between traditional and creative businesses would be enhanced if there were so-called "mediators" that could facilitate communication and understanding between both sectors.

Main points concerning creativity and innovation demand in traditional business:

- *Statistical databases do not provide data that would allow to distinguish the traditional business sectors or sub-sectors that are targeted – there is no possibility to obtain statistics on maritime tourism or maritime transport & shipbuilding. The statistical classification of economic activities does not allow the identification of data for renewable energy companies. Therefore, available statistics on renewable energy plants are presented separately, while for the statistical analysis of traditional businesses the companies engaged in the following economic activities were selected:*
  - *Maritime transport & shipbuilding, including building of ships and floating structure, building of pleasure and sporting boats, repair and maintenance of ships and boats, sea and coastal passenger water transport, sea and coastal freight water transport, service activities incidental to water transportation;*
  - *Tourism, including travel agency activities, tour operator activities, accommodation and food service activities.*
- *In 2016, there were a total of 756 companies (or 7% of all enterprises in the Region) of the selected traditional businesses (i.e. maritime transport & shipbuilding and tourism) in Klaipeda Region and most of them (over 80%) were local tourism companies. Nevertheless, the majority of national maritime transport & shipbuilding companies (141 companies out of 172) operate in Klaipeda Region. 11869 persons were employed in the selected traditional companies of Klaipeda Region: 5366 persons in maritime transport and shipbuilding enterprises and 6503 persons in tourism enterprises. Meanwhile, in Telšiai Region there are no companies that have declared that they are engaged in maritime transport and shipbuilding activities. Thus, traditional businesses in Telšiai Region are represented mainly by local tourism companies, the number of which in 2016 was 139 (or 4% of all enterprises in the Region), and they employed 1002 persons.*
- *In 2016, the turnover of the selected traditional businesses enterprises in Klaipeda Region made up 6,5% of the total business turnover in the Region, and the added value accounted for 10,7% of the region's business value-added. Particularly significant contributions to the Regional economy have come from local maritime transport and shipbuilding companies – the turnover of these companies was more than three times higher than the turnover of local tourism enterprises. In Telšiai Region, the turnover of the selected traditional businesses (i.e. tourism) amounted to 0,3% of the total business turnover in the Region, and generated added value was 0,7% of region's business value-added.*

- *Compared to the national average, in Klaipeda Region, traditional business enterprises are larger by size class – in 2016, micro-enterprises accounted for 69% of the regional tourism companies and 46% among maritime transport&shipbuilding companies. In the Telšiai Region, where traditional businesses are represented only by tourism companies, micro-enterprises dominate (make up 78%) and their share exceeds the national average. There were no medium-sized and large enterprises engaged in tourism activities in Telšiai Region.*
- *In 2016, 148 new companies operating in the areas of selected traditional businesses were established in Klaipeda region. Among them were 10 new maritime transport and shipbuilding enterprises and 138 tourism companies. These companies created 463 jobs (414 in tourism and 49 in maritime transport and shipbuilding spheres). In Telšiai Region, 40 new companies of the selected traditional businesses (consisting of only tourism companies) started operating and these companies created 76 jobs.*
- *In 2016, 225 companies in Klaipeda Region (among 1940 companies in the country) were recognized as fast growing, including 18 tourism companies (which accounted for 15% of the country's high-growth tourism companies) and 8 maritime transport and shipbuilding companies (or 75% of the country's fast-growing maritime and shipbuilding companies). In Telšiai Region, there were 50 fast growing companies, which made up 2,6% of the country's high-growth companies. Only 1 of these companies represented the selected traditional businesses (namely tourism).*
- *Currently, there are 416 renewable energy power plants in Klaipeda region, which account for 11% of all Lithuanian power plants. In Telšiai Region, there are 460 renewable energy plants or 12% of the country's total power plants. The highest installed electricity capacity is in wind power plants, which make up 88% of the total electrical capacity installed in Klaipeda Region and 72,9% of the total electrical power installed in Telšiai Region.*
- *Interviews and focus group discussions have revealed that the lack of cooperation with the creative sector is often explained by the limited financial capacity of traditional businesses. Therefore, the representatives of traditional business stressed that potential financial support would be a significant incentive to strengthen cooperation between the two sectors. On the other hand, representatives of traditional business admitted that while business is successful, the need for innovation or creative solution is not relevant, usually it arises when businesses start to face difficulties.*
- *The need for creative services in traditional business was usually associated with company's representation or environmental improvement, as well as with human resource development and social activity of the company. However, the role of the creative sector has been poorly understood when addressing issues directly related to the development of company's products or services, emphasising that the creative sector lacks understanding of traditional business specifics.*
- *The cautious (and sometimes sceptical) attitude of the traditional business to the creative sector was associated to the fact that the competence of the creators did not always correspond to the expectations of the traditional business. Moreover, traditional business does not always accept the special way creators see the world and engage in business:*
- *When considering how to strengthen links between traditional business and the creative sector, it was pointed out that inspiring training are useful. Also, majority of interviewees and focus group participants agreed that cooperation between traditional and creative businesses would be*

enhanced if there were so-called "mediators" that could facilitate communication and understanding between both sectors.

III. POLICY FOR INNOVATION AND CREATIVE – TRADITIONAL BUSINESS CROSS-SECTORAL COLLABORATION

The purpose of this section is to assess whether the existing policy is conducive to the emergence/ promotion of business cross-sectoral collaboration. This includes a mapping of the innovation strategies and regulatory guidelines that contribute to cross-sectoral collaboration on national, regional and local level.

In the scope of the Project, two regions in Lithuania – Klaipeda county and Telšiai county – are taken for the analysis. However, according to the territorial structure of state government Lithuania is a unitary state (a single NUTS 2 region). Regional governance system in Lithuania is still in the process of development. It should be noted that Lithuania since 1995 was divided into the two main sub-national territorial administrative tiers:

- Counties – the higher administrative units, whose management is organized by the Government (referred to NUTS 3 level) and
- Municipalities – the lower administrative units, where self-government is introduced (referred to NUTS 4 level).

In the year 2010 the administrations of the counties were abolished leaving counties as territorial units only, i.e. regional policy in Lithuania is implemented without regions as territorial administrative units[30]. At present, therefore, we can speak only of a one-tier local self-government system. Municipalities (local self-governments) organized territorially in the boundaries of a county. The institutional body implementing/forming regional policy became regional development councils, which are composed from: municipalities' mayors (from all the municipalities belonging to that particular county), delegates from local councils, and an authorized person appointed from the Government or Governmental institution. These councils, however, are not very independent as they must work under the directions of National regional development council and the Ministry of Interior (Department of Regional Development).

[30] *Burbulyte-Tsiskarishvili G., Kutkaitis A., Normante I. (2013) Local governments as the main actors of regional development in Lithuania. Paper presentation for the 21st NISPAcee conference "Regionalization and Inter-regional Cooperation" (Belgrade, Serbia).*
http://www.nispa.org/files/conferences/2013/papers/201304101921210.Nispa_Burbulyte_et%20al.doc

Abolishment of the county Governor administration institution led to the centralisation of regional policy. The main body that "prepares a draft regional development plan in accordance with the procedure established by the Minister of the Interior and submits it to the regional development council for consideration and approval" is the Regional Development Department under the Ministry of the Interior[31].

The described regional policy formation system determines the fact that the innovation policy in Lithuania is rather centralized and regional governance plays a little role in public policy formation of this area, since innovation policy decisions mainly are made at the national level.

In Lithuania there are a lot of national level strategic documents related to innovation development, which highlight the importance of business, science and culture integration.

National strategies, programmes and action plans related to business innovation, collaboration and creative industries (CI) development promotion:

Policy document	Contribution to business innovation, collaboration and CI development
Lithuanian Progress Strategy – Lithuania 2030	The Lithuania 2030 Progress Strategy outlines some key initiatives for change and economic integrity. Lithuania 2030 Progress Strategy outlines three main focus areas that are smart economy, smart society and smart governance. In the smart economy, one of the key initiatives for change is economic integrity. In order to achieve this, the integration of business, education, science and culture should be facilitated. In addition, favourable conditions for the development of creative and cultural industries and their international competitiveness must be created. Three horizontal progress areas are identified in the Progress strategy, including culture, health for all and regional development.
National Progress Programme (NPP) for 2014-2020	NPP is the implementation tool of the Lithuania 2030. NPP seeks, in addition to other objectives, to foster SMEs competitiveness, research-business collaboration, implementation of joint projects and joint use of R&D infrastructure. It also contains a set of demand-side innovation policy measures, e.g. innovative public and pre-commercial procurement, regulation, financial and tax incentives for innovation consumers. Culture is seen both as a priority and importantly also as a cross-cutting, horizontal issue. One of the priority "Culture" tasks is to promote the development of creative and cultural industries, art and culture related innovations, cross-sectoral development of

[31] *https://e-seimas.lrs.lt/portal/legalActPrint/lt?jfwid=-2icx8zqxa&documentId=TAIS.366713&category=TAD*

	innovations, and the export of culture.
Horizontal Priority Culture Inter-ministerial Activity Plan' for 2014-2020	The Plan has been prepared seeking to coordinate cross-ministerial measures implementing NPP Horizontal Priority „Culture". In addition to other measures, The Plan foresees activities related to Research and Experimental (Social and Cultural) Development; promotion of innovation and CI development.
Lithuanian Innovation Development Programme 2014–2020	This Programme has been compiled in order to mobilize the state resources for the improvement of Lithuania's innovativeness and development of competitive economy based on high level knowledge, high technologies, qualified human resources and smart specialisation. The programme also states that creative activity is necessary for the advancement of all sectors and that the use of creative knowledge can deliver high value added for other sectors. Innovation Programme emphasizes the role of CIs for the development and progress of different sectors, envisages "promoting cooperation between different sectors, exploiting potential synergies in the development of new goods and services, introducing new technologies in various fields – production, transport, agriculture, energy, etc. Thus, CIs are recognized as part of the national innovation ecosystem due to interdisciplinary and cross-sectoral innovation potential.
National Programme for the Development of Higher Education, Research and Experimental (Social and Cultural) Development for 2013-2020	The Programme provides grounds for training highly qualified specialists who are able to compete on the labour market, creating conditions for high-quality R&D practices to form, and developing interinstitutional, inter-sectoral and international cooperation. The strategic objective of the Programme is to encourage the sustainable development of people and society, which improves the country's competitiveness and creates conditions for innovation by developing studies and implementing R&D.
Programme on The Implementation of The Priority Areas of Research and (Socio-Cultural) Development and Innovation (Smart Specialisation), 2014	The Programme has been prepared seeking to identify the priorities of the research and (socio-cultural) development and innovation (Smart Specialisation) priority areas (RDI Priorities). The strategic goal of the Programme is to increase the impact of high value added, knowledge-intensive and highly-qualified-labour-intensive economic activities on the GDP and structural changes of the economy. The strategic goal includes the following objectives: – create innovative technologies, products, processes and/or methods; – increase competitiveness of Lithuania's legal entities and their opportunities for establishing in global markets – commercialisation of knowledge created in the implementation of the RDI Priorities and using the unique synergy arising from the collaboration of science and businesses, economic entities and other public and private sector entities. RDI Priority Area "Inclusive and creative society" seeks to promote RDI activities which would develop talents and creative

	potential, ensure efficient use of creative and culture industry resources and non-technological innovation.
Directions for Development of The Cultural and Creative Industry Policy for 2015-2020	The Strategy is a policy instrument to advance the contribution of the cultural and creative industries to sustainable development in Lithuania. The strategy was initiated in 2007, formally reviewed in 2009 and then again in 2015. The strategy sets 4 priorities: 1) to develop creative skills in all age groups in society; 2) to use CIs' potential to develop a creative, high-quality life environment; 3) to raise the economic value and export share of CIs; 4) to foster innovations in all CI sectors. The Strategy sets a goal of expanding the role of CIs in the Lithuanian economy to 7% of GDP and copyright exports to grow to become 7% of total exports by the year 2020.
The Entrepreneurship Action Plan of Lithuania for 2014–2020	The Plan seeks to ensure growth of the level of entrepreneurship in Lithuania through the development of consistent and continuous entrepreneurship education system, favourable environment for business start-up and development by improving accessibility of public services to business. Attention is given to the growth and development of CI, implementation of innovations in the area of CI, promotion of initiatives related to art and culture. It is stressed that CI is becoming more and more significant in the economy in promoting innovations and development.
The Program for the Development of Regional Culture for 2012-2020	The Program aims to promote the uniqueness and attractiveness of regions promoting an even cultural development in all areas of the country. It seeks to create conditions for comprehensive personal development and creative expression, cultural accessibility and diversity as a basis for the region's social and economic progress. By implementing one of the three objectives, the Program promotes international, interregional, interinstitutional cooperation, enabling the use of cultural processes for economic and social progress. It is planned to stimulate economic activities which exploit regional cultural resources, their clustering and interaction with cultural activities.
The Guidelines for Alternation of the Lithuanian Cultural Policy, 2010	The Guidelines are the key political document that provides for alternations in the planning and implementation of cultural policy creating preconditions for changing the role of culture in the State. The Guidelines state for example that the increase of intellectual capital of Lithuania is based on the CIs competitiveness. In addition, copyrights and related rights must be appropriately protected, thus giving representatives of the creative industries better motivation to invest in creative product development and compete in global markets.
The concept of the development of Lithuanian clusters, 2017	The Concept (revised version of 2014 Concept) of the development of clusters emphasizes the need for international and cross-sectoral cluster development. It is emphasized that it is necessary to create a favorable environment for the development

of innovative clusters, international relations and the development of international world-class innovation clusters. It is provided that the aim of the cluster development is to increase the competitiveness of the Lithuanian economy by promoting clusterization and making it more efficient. In order to achieve the intended goal, it is necessary to develop the innovative potential of clusters; to promote the export of cluster members' products and to join to international value chains; to increase the efficiency of the activity of the cluster members; to form a favorable environment (ecosystem) for the establishment, operation and development of clusters; to promote cross-sectoral, interregional, and international cooperation and to disseminate the benefits and potentials of clustering.

Valley means concentration of the capacities in research, studies and knowledge-intensive business in one area, with common or interrelated infrastructure. The goal of the Concept – promoting development of valleys, enabling trainings, creating new internationally competitive high-added value knowledge and products, promoting high-tech businesses, advanced technologies and innovation.

The concept of the establishment development of integrated science, studies and business centres (Valleys)

There are 3 main objectives intended to achieve the goal of the Concept:

1. to facilitate generation of high-level research-based new knowledge, encourage national and international cooperation among scientists and other researchers;
2. to promote the development of R&D intensive sectors of the economy and the development and commercial application of innovative products, i.e. to enable science and business to cooperate effectively;
3. to concentrate and update R&D, innovation, higher education, and knowledge-intensive business infrastructure.

The Concept defines guidelines for STP development as one of the means to intensify co-operation between science and business in the area of R&D.

The aim of SPT development – to become active participants of the innovation system providing innovation support services which increase the competitiveness of knowledge-intensive businesses and develop an innovation culture.

The concept of Science and Technology Parks (STP) development

The concept distinguishes 6 possible directions of park activities.

- create conditions for the development and commercialization of research results;
- activate an innovative partnership;
- to develop international cooperation;
- to create favourable conditions for the establishment and development of innovative enterprises;
- to develop the culture of innovation;
- to seek the specialization of the park (provide specialized innovation support services for a particular technology sector).

Regional level strategies, programmes and action plans related to business innovation, collaboration and creative industries (CI) development promotion

Every Region (County) in Lithuania has prepared a Region development plan, which is the only strategic document on the regional level. Consequently, in two target regions of Lithuania there are Klaipeda Region development plan and Telšiai Region development plan.

Typically, Region development plans are oriented to public physical infrastructure improvement projects and are financed from European Union support funds and (at a lower extent) from state and municipalities' budgets. Klaipeda Region and Telšiai Region development plans are not exceptions.

Therefore, it can be summarized that there are no innovation related strategies or programs developed at the regional level in Lithuania.

Local level strategies, programmes and action plans related to business innovation, collaboration and CI development promotion

As it was mentioned, since 2010 the counties remain only as the territorial and statistical units covering several municipalities. The Klaipeda Region consists of 7 municipalities (Klaipeda City Municipality, Klaipeda District Municipality, Kretinga District Municipality, Neringa Municipality, Palanga City Municipality, Skuodas District Municipality and Šilutė District Municipality) and Telšiai Region consists of 4 municipalities (Mažeikiai District Municipality, Plungė District Municipality, Rietavas Municipality and Telšiai District Municipality).

All municipalities have prepared Strategic development plans that usually contain SMEs support and also cultural development programs (or measures). However these programs (or measures) are oriented to rather small scale projects and the amount of financial support is very limited. Moreover, in most cases they lack orientation towards business innovation, collaboration and CI development promotion.

Nevertheless there are some positive cases, for example Klaipeda City Strategic Development Plan, in addition to traditional business support measures, envisages measures for joint business-culture and business-science-public sector projects, promotes CI development (see table below). Therefore, it can be said that Klaipeda City Strategic Development Plan is one of the rare initiatives stimulating innovation and CI development at the local level.

Klaipeda City Strategic Development Plan for years 2013-2020

OBJECTIVE AND TASKS	MEASURES
OBJECTIVE. DEVELOPING KLAIPEDA'S CULTURAL IDENTITY, INTEGRATED INTO THE BALTIC SEA REGION CULTURAL SPACE	
TASK. Developing cultural partnership in the Baltic Sea region	- Initiate joint projects of business and culture subjects;
TASK. Creating conditions for the development of cultural and creative industries	- Prepare and implement Klaipeda creative industry development and support program; - Implement joint projects with the Vilnius art academy's Klaipeda's Urban geography and Design institute;
OBJECTIVE. SUSTAINING FAVORABLE BUSINESS CONDITION	
TASK. Creating favourable conditions for industrial development and development of other businesses	- Create a business incubator in order to improve the business climate in the city
TASK. Developing partnership between municipality, science and business organizations	- Create a regular functional space for debates between science, business and public sector participants
TASK. Encouraging entrepreneurship	- Promote projects that improve small and medium-sized business environment in Klaipeda - Set up business nominations in order to improve the image of entrepreneurs

Key issues related to innovation policy

- *The growing number of strategic documents on innovation risks obstructing the overall policy thrust. Lithuania's innovation policy is laid out in numerous documents and programs, making it difficult to absorb. There is also a risk of duplication, muddled priorities, and possibly competing policies*[32].

- *In Lithuania, there is excessive focus on legal regulation, without paying attention to the explanation of the benefits of innovation and/or collaboration to the potential stakeholders*[33].

[32] *Republic of Lithuania: Selected Issues. (2017) International Monetary Fund https://www.imf.org/~/media/Files/Publications/CR/2017/cr17178.ashx*
[33] *Paliokaitė A. et all (2014) Lithuanian High Technologies Development Feasibility Study http://ukmin.lrv.lt/uploads/ukmin/documents/files/AT%20studija_santrauka_EN.pdf*

IV. INSTITUTIONAL CAPACITY FOR INNOVATION AND CREATIVE – TRADITIONAL BUSINESS CROSS-SECTORAL COLLABORATION

The section below focuses on institutional, organisational and infrastructural aspects of business innovation support and implementation. It seeks to identify different kinds of institutions (state, local governments, private firms, and NGOs) that play specific roles in enabling innovation development through traditional and creative business collaboration.

The section also includes an overview of business innovation support infrastructure provided by these institutions as it plays a critical role in the success of innovation development by providing a wide range of support in the form of advice, networking, and accommodation.

Institutional setup of Lithuania's Innovation system (including arts and creative industries[34]) could be divided to main four levels: policy making level, advisory bodies, implementing institutions and coordination institutions.

Policy Making Level

The main ministries responsible for the policy making of business innovation are the Ministry of Economy (in 2019 renamed the Ministry of Economy and Innovation) and the Ministry of Education and Science. The Ministry of Culture (MoC) is active in sector-specific innovation policies, i.e. innovations related to culture and creativity.

– The Ministry of Economy (MoE) is responsible for the design of policy related to the promotion of innovation in business development, including the establishment and operation of innovation support organizations such as science and technology parks (STPs) and business incubators. However, the Ministry of Economy has a limited mandate to participate in the process of Research and development (R&D) policy development, which is led by the Ministry of Education and Science (including Government funding of R&D).
– The Ministry of Education and Science (MoES) is mainly responsible for policy development in the areas of research in the public science system and highly skilled human resources, including

[34] In Lithuania business innovation support policy is mainly oriented on business and science and research sectors collaboration.

R&D. At the same time, it proposes the establishment, reorganization, and closure of research institutions. The ministry is also in charge of a major part of financial and other resources for the implementation of national research policy.

– The Ministry of Culture (MoC) holds the main responsibility in forming the general culture policy guidelines in Lithuania. It is in charge of formulating and implementing the state culture policies in the fields of professional and amateur art, theatre, music, fine arts, cinema, museums, libraries, publication as well as in the area targeted to safeguarding the copyright and neighbouring rights and the protection of cultural values. The MoC has also a separate department of Art and Creative Industries Policy and supports the promotion of CIs in the society.

Advisory bodies:

– The Strategic Council for Research, Experimental Development, and Innovation, chaired by the Prime Minister and consisting of representatives of the ministries engaging in R&D and innovation development, provides advice to the government.

– The Academy of Science and Lithuania Research Council act as counsellor of Parliament and the Government of Lithuania:

  - The Academy of Science is an association of scientists and provides independent advice on a broad range of issues ranging from research and higher education, to culture, social development, economy, environmental protection, health care, and technology. The mission is to bring Lithuanian and international scientists together for meaningful collaboration, to encourage the integration of Lithuania into the European Research Area and developing a knowledge society, and to provide the best scientists needed for R&D.
  - Research Council is a counsellor of Parliament and the Lithuanian government on issues of research and researcher training. LMT's main areas of engagement are in research policy and legislation, research funding, and scientific advice. LMT experts are involved at all three levels of innovation policy (decision making, advisory bodies, and implementation).

– The Research and Higher Education Monitoring and Analysis Center also gives advice to government.

– The Agency for Science, Innovation, and Technology gives advice to both MoE and MoEs.

– The Innovation Economy Council provides advice to MoE.

– The Higher Education Council serve as consultants MoES.

– Under MoC there are a range of Councils operating as advisory boards. They include, for example, The Lithuanian Council for Culture, the Film Policy Council, The Council of Copyright and Related Rights:

- In general, the Council for Culture implements the State culture policy in the governance areas assigned to the MoC, except for the areas assigned to the Lithuanian Film Centre. Council develops and submits proposals, based on expert conclusions, on culture and arts policy issues to MoC and other state institutions (on its own initiative or upon inquires). Council for Culture as well acts as implementing body.
- Film Policy Council, as collegiate and advisory institution, is dealing with the issues of the Lithuanian film policy. It provides MoC with proposals and conclusions concerning the strategic planning and measures of strengthening the field of cinema. Film Policy Council outlines cinema development programmes, defines their aims and evaluates reached outcomes. Film Policy Council as well is involved in cultural policy implementation.
- The Council of Copyright and Related Rights of Lithuania which, as an expert and consultant, investigates issues related to the implementation of the provisions of this Law and international obligations of the Republic of Lithuania in the field of copyright and related rights and submits conclusions and proposals to the Ministry of Culture[35].

Implementing Institutions

Responsibility for innovation policy implementation is scattered across the system. Each innovation policy making ministry administrates several different implementing institutions. However, some policy advisory bodies also have responsibility in implementation. The main institutions responsible for implementing business innovation policy are:

– *The Lithuanian Business Support Agency*, operating under the supervision of the MoE, as the executive institution in the structure for the administration of EU funding in Lithuania, the Agency administers EU funding granted for the development of Lithuanian business, R&D, tourism, and the energy sector.
– *Enterprise Lithuania*, supervised by the Ministry of Finance (MoF), provides support for SME's establishment and development and encourages Lithuanian exports. It organizes consultations and events to help entrepreneurs build connections with and attract funding.
– *Start-up Lithuania* is powered by Enterprise Lithuania. It is one stop shop for start-ups. It facilitates national startup ecosystem between business, venture capital funds, accelerators, startup friendly enterprises, and the government; provides startup database, prepares newsletters

[35] MoC is authorized by the Government to implement the state policy in the area of copyright and related rights and coordinate its protection. The protection of copyright and related rights (harmonized with the International and the European Union legal acts) is regulated by the Law on Copyright and Related Rights of the Republic of Lithuania. Major role in copyright and related rights protection is played by collective administration of these rights, performed by the subjects of the copyright and related rights on the basis of voluntary membership in non-profit organisations. The Lithuanian and foreign copyright is collectively administered by the Association LATGA (1991) and Music copyright association NATA (2012); for the collective administration of the performers and phonogram producers' rights, the Lithuanian Related Rights Association AGATA (1999) and phonogram producers and Neighboring rights association GRETA (2013) were established. The rights of the owners of audiovisual works are administered by the Association of Audiovisual Works Copyright AVAKA (2008).

that cover the ecosystem; organizes events: hackathons, barcamps, workshops and Startup Fair (main startup event of the year); as well provides consulting and advising.

– *Invest Lithuania*, supervised by the MoE, is an agency with the objective to attract foreign investment, which serves as a point of contact for foreign companies and guides international businesses through the process of setting up operations in Lithuania.
– *The Investment and Business Guarantee Institution*, supervised by the MoE, implements and administers financial and other support measures for SMEs.
– *The Central Project Management Agency*, under the MoF, administers large-scale investments in the development of research infrastructure as well as international cooperation programs. It also provides methodological and advisory assistance on issues of public-private partnerships.
– *Lithuanian Innovation Centre*, provides innovation support services to enterprises, research institutions, industry associations and business support organisations. It assists companies and research organizations in finding the right partners for development of innovations, technology transfer, for participation in international R&D and innovation programmes, etc. Also Innovation Centre provides consulting and mentoring on various topics of innovation funding. Shareholders of the Centre are the MoE, MoES and the Lithuanian Confederation of Industrialists.
– *The Center for Quality Assessment in Higher Education*, founded by the MoES, implements the external quality assurance policy in higher education in Lithuania and contributes to the development of human resources by assessing the quality of higher education, assessing qualifications, and disseminating information on higher education systems and qualifications recognition.
– *The Agency for Science, Innovation and Technology* was established following an agreement between the MoE and the MoES with activities supported and funded jointly by the two ministries. The key objective is to foster business and science cooperation and to create a business-friendly environment conducive to innovation. This institution administers several measures and programs, especially R&D collaboration, and it also administers the innovation voucher program.
– *The Lithuania Research Council* prepares and submits to the Government for approval the national research programs and implement them. It participates in the preparation and implementation of EU structural assistance and other R&D programs. Research Council also provides financial support for research and other scientific activities carried out by researchers.
– *The Lithuanian Council for Culture, the Film Policy Council* acting under MoC are involved in cultural policy implementation:

- *Council for Culture* provides co-financing to culture and arts projects, administrates the Culture Support Fund, awards grants, provides scholarships and other financial support to culture and art creators, as well Council for Culture is responsible for monitoring and analysis of culture and arts projects, organization of culture and arts research.
- *Film Policy Council* contributes to the implementation by evaluating and allocating funding for projects related to film development, production, promotion and distribution.

Coordination institutions

In general, there is lack of coordination between different innovation institutions in Lithuania[36]. The establishment of the Group for Coordination of Implementation of Research and (Socio-Cultural) Development and Innovation Priorities (Smart Specialization Coordination Group) can be regarded as an effort to address this issue. The Coordination Group is responsible for managing the implementation of the Programme on The Implementation of The Priority Areas of Research and (Socio-Cultural) Development and Innovation (Smart Specialisation). The Group was formed by a joint order of the MoES and the MoE, consisting of representatives from the Office of the Government, ministries, other state institutions, business representatives, and other socioeconomic partners.

Associated business organizations (for example Lithuanian Employers' Confederation, Lithuanian Business Confederation, Chamber of commerce, industry and crafts) as well potentially play certain role in business innovation uniting various sectors businesses across the country, participating in the economic legislation processes, organizing discussions, that involve business and government leaders, experts in various fields. A particularly important role in the development of business innovation to be given to the National Association of Creative and Cultural Industries, which was established to support cooperation between culture and art organisations, NGOs, business, science and educational sectors as well as to support their participation in regional and international networks, and to stimulate the creative industries in Lithuania.

Though business innovation policy design in Lithuania is rather centralised and institutions responsible for its formation and coordination are mainly operating on a nationwide level, the regional dimension is also should be taken into account.

Development of business innovation in Lithuanian regions is supported using various tools and instruments, which create regional innovation support infrastructure. Regional innovation support

[36] See Republic of Lithuania: Selected Issues. (2017) International Monetary Fund https://www.imf.org/~/media/Files/Publications/CR/2017/cr17178.ashx

infrastructure covers institutions established to support business capacity for innovation (like business information centres, clusters, technology and science parks, incubators and other related organisations), as well the schools of higher education, fostering skills prerequisites for the development of creative innovation.

Focussing on two target regions in Lithuania, the table below maps the existing supply of innovation enabling infrastructure and services in Klaipeda and Telšiai regions (counties).

The supply of innovation enabling infrastructure in Klaipeda and Telšiai Regions

Higher education institutions (Universities and Colleges)	-- LCC International University (Klaipeda); -- Klaipeda University; -- Klaipeda Faculty of Vilnius Academy of Arts; -- Klaipeda Faculty of Kazimieras Simonavičius University; -- Klaipeda State College; -- Lithuanian Maritime Academy (Klaipeda); -- SMK University of applied social sciences (Klaipeda); -- Klaipeda Business Higher School; -- Lithuania Business University of applied sciences (Klaipeda); -- Telšiai Faculty of Vilnius Academy of Arts; -- Seminary of the Bishop Vincentas Borisevicius at Telšiai.
Business incubators	Telšiai County Business Incubator; Klaipeda STP Business incubator
Arts incubators	Culture Factory Creative Incubator (Klaipėda) Telšiai Art Incubator
Business Information Centres	Rietavas Tourism and Business Information Centre
Integrated Research, Studies and Business centres (Valleys)	Maritime Valley (Klaipėda) – National Centre of Marine Sciences and Technologies
Science and technology parks (STPS)	Klaipėda Science and technology park
Clusters	Clasters coordinated by organizations operating in Klaipėda and Telšiai Counties: -- Liquefied natural gas (LNG) Cluster; -- Pamario Tourism Cluster; -- Žemaitija Tourism Cluster
Free economic zones	Klaipeda free economic zone
Open access centres	Open Access Centre for Marine Research (Klaipėda University)
Innovation scouting / brokerage	Klaipeda Science and Technology Park provides Innovation brokerage service. *Innovation brokers transfer knowledge between science and business.*
Electronic Science Gateway	Nationally-wide service. Using a 'single point of contact' principle, R&D information system provides advanced electronic services to help business undertakings, science and study institutions and other stakeholders to ensure closer

	cooperation. E-science gate helps business to find and order: scientific research; specific inventions; technologies feasibility studies; new methodologies; prototypes or products.
Business Gateway	Nationally-wide service. Business Gateway is a portal helping to start and operate a business. This virtual one-stop-shop provides all kinds of support for doing business along a company's life cycle.

Key issues related to institutional capacity for innovation:

- *The institutional setup of innovation promotion in Lithuania is highly fragmented. A large number of bodies are involved as policy making, advisor, implementing and coordinating institutions. This setup presents significant coordination challenges, ranging from unclear mandates, overlapping responsibilities, and administrative inefficiency*[37].

- *The Lithuanian innovation system is characterized by strong emphasis on research and science-driven innovation*[38]*. The potential of arts and creativity for business innovations is underestimated.*

- *The existing regional innovation support infrastructure is scattered between the universities, clusters, and science and technology parks*[39]*. There is a lack of a coordination framework that would allow for better management of infrastructures' assets.*

- *The supply of infrastructure and services, rather than direct support to businesses, risks creating a mismatch between available innovation support instruments and business needs. The heavy emphasis on indirect business support, risks supplying infrastructure and services that do not efficiently meet businesses' needs*[40].

[37] *Republic of Lithuania: Selected Issues. (2017) International Monetary Fund https://www.imf.org/~/media/Files/Publications/CR/2017/cr17178.ashx*
[38] *OECD Reviews of Innovation Policy: Lithuania Assessment and Recommendations (2016). https://lrv.lt/uploads/main/documents/files/Lithuania%20Innovation%20Policy%20Review%20Vilnius%20160628.pdf*
[39] *http://ukmin.lrv.lt/uploads/ukmin/documents/files/AT%20studija_santrauka_EN.pdf*
[40] *Republic of Lithuania: Selected Issues. (2017).*

V. FINANCIAL INSTRUMENTS FOR INNOVATION AND CREATIVE – TRADITIONAL BUSINESS CROSS-SECTORAL COLLABORATION

Access to finance is a key driver in the creation, survival and growth process of firms, and especially for innovative firms, because they tend to have riskier projects and business models.
The section aims to overview existing business innovation and cross-sectoral collaboration support measures and financial instruments, including CI targeted financing models.

In Lithuania, similar to other new EU member states, the main source of finance for the promotion of business innovation and cross sectoral collaboration comes from EU Structural Funds. The wide range of measures of direct and indirect public support for business and innovation is offered.

Innovation support measures are targeted to increase research activities in the business sector and contribute to business-science collaboration (Idea LT, Intellect LT, Intellect LT+, Inogeb LT), to promote SMEs activities directed towards development of new innovative products, services and processes (Process LT, InoPatent LT, Design LT, Eco Innovation LT), as well as to ensure knowledge transfer and networks – Ino-vouchers LT, Inocluster LT, Inocluster LT+.

A table below presents a set of EU measures combining direct and indirect support for business innovation in Lithuania.

Support measures for business innovation and collaboration

Measure	Supported activities
Idea LT	The measure aims to increase research and development (R&D) activities in the business sector. It supports preparatory activities for the implementation of R&D projects in enterprises, namely, R&D project feasibility studies and risk assessments.
Intellect LT	The main goal of this measure is to encourage SMEs' investment into development of new innovative products, services and processes. This measure is intended to increase the number of projects jointly implemented by business and universities or research institutes, resulting in business and science cooperation and exploitation of synergies.
Intellect LT+	The measure aims to promote enterprise development and the

	creation of new innovative enterprises. It specifically supports the development of private research and development infrastructures (equipment and R&D facilities). The measure supports R&D infrastructure development activities only, while the preparatory studies are supported by the measure Idea LT, and R&D projects by the measure Intellect LT.
Ino-vouchers LT	The measure aims to contribute to the promotion of innovations in SME's. The measure provides small credits for small business to buy R&D expertise or knowledge from research and educational institutions. Supported activities: industrial or applied research, technological development (design and technological works), technical feasibility studies.
Inocluster LT	The programme supports clusters' operation (research strategies, market research, training, marketing, cooperation projects, international projects, etc.) and also investments in R&D infrastructure in clusters.
Inocluster LT+	The measure aims at the improvement of knowledge and technology transfer conditions and facilitation of business and science partnerships. Investments are earmarked for the support of activities related to the formation of clusters in the identified technological "breakthrough" areas. Investment of cluster coordinators into a cluster's training and research centre infrastructure, and a cluster's joint R&D infrastructure is supported.
InoConnect LT	The measure promotes international partnerships and networking of SMEs.
InoPatent LT	This programme aims at encouraging firms to carry out innovation activities and to patent inventions and register designs, thereby strengthening the protection of intellectual property rights internationally.
Inogeb LT	The measure aims to strengthen the Lithuanian Innovation System and to develop an effective knowledge and technology transfer environment, which would support innovation and R&D in business and facilitate business and science partnerships in R&D activities.
Entrepreneurship LT	The measure aims to provide consultancy services for the SMEs of target groups, promotes regional SME cooperation (networking), supports CI business and digital business development (start-innovative enterprises promotion).
Incubators LT+	The measure finances investment in the construction, reconstruction and equipment of incubator buildings (business and art incubators, creative residences) for the purpose of creating favourable conditions for the provision of quality incubation services to newly established SMEs.
Regio invest LT+	The purpose of the measure – to encourage SMEs investing in start-ups and development of innovative production and (or) services, thereby enabling companies to increase productivity, accelerate economic growth and development of Lithuanian regions. Supported activities – development and installation of new

	production and service facilities for the purpose of producing new products and providing innovative services.
Process LT	The purpose of the measure – to encourage SME to introduce innovative management methods and systems in order to create favourable conditions for increasing enterprise productivity. Supported activities – promotion of creation and (or) implementation of non-technological innovations in the production processes or services.
E-Business LT	The purpose of the measure – to encourage SMEs to implement e-business solutions in order to optimize business processes related with the production and (or) services, as well as creating favorable conditions for labor productivity growth of SMEs.
Designe LT	The measure aims to promote SMEs activities directed towards creation and development of non-technological innovation by adapting newly developed design solutions of products or services.
Eco Innovation LT	The measure supports activities related to the implementation and promotion of eco-innovative technologies, in order to reduce the adverse effects of climate change and the greenhouse effect.

Innovative firms have more constraints and difficulties to access to finance, because they tend to have riskier projects and business models[41].

Seeking to increase the impact of EU funding, in recent years attention was turned to ‘innovative‘ financial instruments, defined as instruments that are complementary to grants or subsidies. Those instruments, in the form of loans, equity, guarantees, tax incentives and ect., are considered as a particularly effective way to support the scaling up of innovative SMEs[42]. Many of these instruments have been introduced over the past few years.

The table below provides overview of the financial instruments that are aimed at enhancing the financing available to SMEs and potentially can be used for promoting business innovation in Lithuania.

[41] http://www.solvay.edu/sites/upload/files/WP016-2015-4.pdf
[42] New financial instruments for innovation as a way to bridge the gaps of EU innovation support. (2017) European Commission Final Report. https://ec.europa.eu/research/openvision/pdf/rise/jakimowicz-osimo-mayer-mureddu-vigo_financial_instruments.pdf

Business support financial instruments and tools in Lithuania

Grants and subsidies	Many grants/ subsidies possibilities are available for SME innovation and cross sectoral collaboration (mainly business-science collaboration) from EU structural funds. As well national support for science and culture is provided through grants/subsidies of The Lithuania Research Council and The Lithuanian Council for Culture. On the regional level – municipalities have culture and business support programmes and provide small scale grants and subsidies.
Loans	Different types of loans (soft loans, risk-shared loans) are provided by financial institutions: – Entrepreneurship Promotion Fund 2014-2020 offers soft loans for start-ups of up to EUR 25,000. A loan guarantee may be requested. – Open credit fund 2 offers soft loans for SMEs of up to EUR 600,000. A loan guarantee may be requested and SME can use the measure *Partial financing of interest* and get a compensation of the interest actually paid. – Risk-shared loans financed by the ERDF offers loans for SMEs of up to EUR 4 million. The measure is based on the principle of lending with the proportion of 45:55, under which the Measure Manager contributes by 55% of its own funds to 45% of the Fund loan/credit line share.
Guarantees	The instrument guarantee the repayment of losses arising from the investments made by financial institution in SMEs for loans/ leasing by offering individual and portfolio guarantees. – *Portfolio Guarantees for loans/ leasing* – secures the repayment of 80% of the principal amount of loan/leasing to a financial institution. – *Individual guarantees* for loans / l*easing* – intensity of guarantee 30-80% depending on the age of the company.
Partial financing of Loan interest	Partial financing of interest allows business companies that receive financial support in the form of non-repayable subsidies to reduce their burden of obtaining financing, cut costs and plan business development with more ease. 50-95% of the interest actually paid can be compensated up to 36 months.
Partial compensation of staff training	*Consultation service reimbursement* – counselling expenses on export, business start-up and development, more efficient use of resources and conservation of natural resources can be compensated up to 85% for SMEs. *Competence Voucher* – up to € 4,500 can be compensated for the costs of employee training over a period of 12 months. Reimbursement size is 80% for micro, small and medium enterprises.
Innovation vouchers (IV)	IV is a small credit (a fixed sum of money) that entitles SME's to buy R&D expertise or knowledge from research and educational institutions. Support in innovation vouchers is provided for acquisition of technological (applied) or basic research solutions, as well as for advice on the relevant innovation questions which businesses may obtain from

	research institutions. One company may receive one voucher per year.
Risk capital instruments	Venture capital is usually provided to early-stage, innovative, high-potential business. Currently, the venture capital funds Baltic Innovation Fund, Early Stage and Development Fund I and II, Development Fund I and II, Business Angels Co-Investment Fund and Co-investment fund are being implemented.
Business angels (BAs)	BAs are a private informal investors financing new promising business ideas and is an alternative source of financing, accessible even to a project of a very high risk. Lithuanian business angel network LitBAN, Lithuanian Business Angels Network, was established in 2018. The founding of LitBAN is a major initiative for Lithuania, which will significantly help both start-ups and the development of innovation.
Crowdfunding	Crowdfunding is appealing to businesses and encourages them to innovate. Funds can be granted to the project owner in the following forms: as a loan or other monetary form, or by acquisition of financial instruments issued by the project owner. FinBee was the first Crowdfunding platform in Lithuania. Currently, there are eight operators of crowdfunding platforms approved by the Bank of Lithuania.
Tax incentives for investments into research and development (R&D)	There are three types of tax concessions to increase the level of research being conducted by companies in Lithuania. *1. R&D tax concession*. The costs of R&D, except for depreciation or amortisation costs of fixed assets, shall be deducted 3 times from income for the tax period during which they are incurred where the research and/or experimental development works carried out are related to the usual or intended activities of the entity which generate income or economic benefit. *2. Accelerated depreciation on fixed assets for R&D* – acquisition price of fixed assets used in the R&D activities can be written-off within 2 years instead of 3-8 years to respective assets (machinery, software etc.) *3. Investment project tax concession*. The entity carrying out an investment project may reduce the taxable profits by the amount of the actual costs incurred for the acquisition of the assets during the tax period. Taxable profits calculated for each tax period may be reduced by 100%.
Tax Incentive for Film production	The measure aims to foster local and foreign film production in Lithuania. The production company receives up to 20% of the budget when filming in Lithuania and the local donor is motivated by the opportunity to reduce the local corporate income tax.
Intellectual property rights (IPR) protection tool	It is a special national tool aimed to give financial support for the protection of industrial property rights that covers the patents of inventions and design at the European and international level. Financial support is provided for science and research institutes and enterprises to secure their IPR through compensation of patenting related expenses.
Public procurement	Pre-commercial procurement and innovative public procurement are the instruments to induce innovation in public sector and to encourage business to invest into research, development and innovation.

Key issues related to financial instruments for innovation:

- *In Lithuania, business innovation support schemes mainly focus on funding R&D and fostering business-science cross sectoral collaboration. There is no specifically CI targeted financing models.*

- *Even though the CIs are eligible to apply for funding from the general sources and instruments offered to SMEs, existing support mechanisms, do not adequately suit the needs of CI companies. CIs often are perceived as unattractive investment due to untried business model or difficulty of gauging future income flows and assessing the risk of an investment or valuating the IPR. Furthermore, the general support system is typically built around traditional businesses and when targeted to foster innovation it focuses on technological innovations based on patents, whereas in CIs, the innovations and end-products are often immaterial*[43].

[43] *Heliste P., Kupi O., Kosonen R. (2015) 11 Dimensions: Trends and Challenges in Cultural and Creative Industry Policy Development within the Northern Dimension area. http://www.northerndimension.info/images/11_DIMENSIONS.pdf*

VI. BEST PRACTICES OF CREATIVE-TRADITIONAL CROSS – SECTORAL COLLABORATION

Artlab (2015)
http://artlab.dk/fokus/artlab-in-english/

ArtLab (operated by the Danish Musicians Union and Danish Actors association) offers courses and coaching for professional artists and culturally experienced professionals. The ArtLab aims to foster job creation through education in arts and in arts & business. It focuses on R&D and provides a bridge between education and working life, arts and business and different operators in the field.

Innovation network for Experience Economy INVIO (2015)
http://invio-net.dk/en/about-invio

INVIO network (managed by the Aalborg University) is about promotion of knowledge about the experience economy by knowledge sharing, matchmaking and collaboration between companies and knowledge institutions, and by conducting new research. It brings together companies and knowledge institutions and aims to strengthen the companies' ability to develop and innovate, which will in turn lead to growth and job creation

Interactive Denmark (2015)
http://interactivedenmark.dk/about?language=en

Interactive Denmark is a national partnership, supported by the Market Development Fund, the Capital Region of Denmark, Central Denmark Region, the North Denmark Region and City of Copenhagen. It supports Danish companies in identifying and accelerating business opportunities and growing internationally. It aims to connect foreign companies and to facilitate investment in Danish game and interactive companies. In addition to games, it is targeted for companies producing digital goods and services in the sectors of education and health care. The partnership consists of the Danish Producers Association, Shareplay (a transmedia venture) and CAPNOVA (an investment and development company)

The Design Reaktor Berlin (2015)
http://design-reaktor.de/konzept_en.html

Design Reaktor Berlin is a multi-disciplinary research project of the Universität der Künste Berlin (UdK) / Berlin University of the Arts. The aim is to encourage SMEs and designers to have innovative cooperation together. There are workshops for producing and exploring product ideas, of the potential which is assessed by a panel of experts and developed further in cooperation with the companies concerned. It aims to improve the efficiency of the product development process and enhance the product's identity. In addition, there are professional discussions about strategies for marketing, communications and distribution.

Betahaus GmbH (2013)
http://www.betahaus.com/berlin/story/

Betahaus (Berlin) is a co-working space and a platform for knowledge- and creativity-based workers. It can be used on working 24/7, networking and joint innovating. It provides interdisciplinary approach, international cooperation with other co-working spaces abroad, digitally networked collaborative workplace and low-cost infrastructure for start-ups in all creative sectors. There are meeting rooms, an event space, a prototype laboratory, a space for pitching

	events, a break out area, a coffee shop and a workshop. It is possible to exhibit, test and develop further new ideas and prototypes. In addition to Berlin, it has spaces in Hamburg, Sofia and Barcelona. The Betahaus has been founded by 6 students and it operates as a limited liability company (GmbH).
Senate Department for Economics, Technology and Research (2014) http://www.berlin.de/projektzukunft/en/creativeindustries/	Project **Zukunft** is an initiative of the Berlin´s Senate Department for Economics, Technology and Research. The aim is to support the growth areas of ICT, media and creative economy. The purpose of the initiative is to develop strategies for Berlin as a location, to set up platforms, to create networks for the digital and creative economy, to increase inter-sectoral communication, to develop new support instruments and compile studies.
Thüringer Agentur für die Kreativwirtschaft (2015) http://www.kmu-kreativ.de/introduction/	**KMU-Kreativ initiative** (by Thüringer Agentur für die Kreativwirtschaft) aims to promote cross-industrial cooperation between CIs and SMEs, and by this way increase the demand for CI products and services, instigate innovation projects and raise the productivity in general. The primary target group is SMEs with no business dealings with CI yet. The initiative provides funded and customized consultation on potentials in the company. In addition, if there will be innovation projects initiated as a result of the KMU-Kreativ, they could be eligible for innovation funding support.
European BIC Network (EBN) (2015) http://ebn.eu/index.php?lnk=Mnk2VjRUbFQ1U0JPbVQrZFN1N1hQRTUrWDdWVU5xMGFmaS9na2lxenpIWT0=	**Ideon Innovation** is an innovation centre, providing incubation services open to several fields of business, having sector expertise for example in green and bio-economy, creative, cultural and digital industries, advanced manufacturing and smart mobility. The Ideon has a specialty in start-ups in the cultural sector and the field of water innovations and open innovation with industry. The Ideon Science Park has an initiative for Open innovation, providing a platform for collaboration with corporate clients, external consultancy firms and other operators towards a common goal. At the Science Park, it is possible to develop own and other's product ideas. The service provision of the Ideon Innovation includes business development, office spaces and active support when searching for sources of financing. It has been founded by Lund University, Malmöhus county, Lund municipality and private business operators.
Filmregion Stockholm-Mälardalen (2015) http://www.frsm.se/om-filmregionen/	**Filmregion Stockholm-Mälardalen** is a regional film production centre, which aims to stimulate film production in the region and by this way strengthen its visibility and competitiveness. Other goals are e.g. promotion of the region internationally, networking, professional development of the municipalities and the industry and to find new methods for financing of productions. The centre operates in collaboration between public and private sectors. It has been jointly founded by several provinces, municipalities and cities.
DesignTorget (2015) http://www.designtorget.se/designtorget/se/om_oss/	**DesignTorge**t is a marketplace for creative products. City of Stockholm has provided part of the old Cultural House for the use of creative professionals, where design products can be sold, and by this way it has supported public demand for CIs. DesignTorget operates

	now in Sweden and Norway. DesignTorget is owned by a private holding company.
CITIES project (2011) http://www.northerndimension.info/images/11_DIMENSIONS.pdf	In Klaipeda locates the **Art Dock (Švyturys Art Dock**), which is a creative community, and it is based on a privately-led, public private partnership. It provides spaces for cultural and educational activities, interdisciplinary projects and CI firms. The Art Dock has been used as a model project for finalizing the city's concept for the Klaipeda Cultural Factory (which is a public investment project).
Education Development Centre Lithuania (2012) http://www.kurybinespartnerystes.lt/en.php	**Creative Partnerships** is a creative teaching programme that brings together pupils from 1st to 12th grade, teachers and creative artists, culture and creative sector professionals and scientists. The aim of the programme is to expand and enrich the usual learning process, develop students' and teachers' creativity, and also to promote new learning methods that help develop skills essential for the 21st century labour market. The partnership is an initiative of Ministry of Education and Science. It is implemented by the Education Development Centre and funded by the European Social Fund and state budget.
Užupis Creative Cluster (2015) http://www.ucc.lt/en/	**Association Užupis Creative Cluster** (UCC) is a non-profit limited liability public entity, which has an overall objective to develop a competitive and productive Lithuanian educational simulation games sector in the international market. Also, it aims to increase the UCC simulation game sector's national and international competitiveness and productivity and to run and carry out the social educational simulation games development. In addition, its aim is to develop and commercialize Užupis' professional and creative potential. The UCC is partly funded by the European Regional Development Fund. The cluster has been founded by the Community Building Consultants and five other companies. It has been funded by the Ministry of Economy and the Lithuanian Business Support Agency.
Pomeranian Science and Technology Park Gdynia (PPNT Gdynia) (2015) http://ppnt.pl/en/centrumdesignu/centrum-designu-gdynia	**Gdynia Design Centre** aims to support the development of the CI. It is targeted to companies from sectors of industrial design, graphic design, multimedia and architecture. It also aims to promote cooperation between designers and entrepreneurs. The centre is also coordinating initiatives and activities involved with design. It participates in international projects and conducts educational activities. The Gdynia Design Centre has been founded by the City of Gdynia.
Fabryka Sztuki W Łodzi (2015) http://www.artinkubator.com/Page#misja_parralax	**Art_Incubator** locates in Fabryka Sztuki (a city culture institution in Łódź). The purpose of the incubator is to bring together creativity and entrepreneurship. Through the Fabryka Sztuki the institution supports creative people to operate on the market and realizes activities to promote arts and professionalization of the creative sector. It has been founded by Łódź Art Center Foundation, Chorea Theatre Association and Łódź City Hall.
Zamek Cieszyn (2011) http://www.zamekcieszyn.pl/e	**Zamek Cieszyn** is a centre of research and documentation of material culture and design located in Cieszyn. Its primary objective

n/artykul/projektujemy-mozliwosci-199	is the development of innovative enterprises by exploiting the potential of design. It organizes design workshops for experienced design experts from Europe and USA. There is the Entrepreneurs Club and range of courses and consultations, in which local businesses are encouraged to participate together with local government, media representatives and designers. The region is promoted also as a tourist destination. The Zamek Cieszyn is a local cultural institution operated by City of Cieszyn and Silesia Province.
Filmteractive (2015) http://filmteractive.eu/filmteractive-about-us/en	**Filmteractive** is an international 2-day event (23-24.9.2015) combining business conference, content market and digital art festival. The aim of the Filmteractive is to create meeting place for filmmakers, directors, artists, marketers and potential investors where they can network and exchange their professional know-how. In addition, it aims to provide information about the possibilities of digital content, interactive video and cross-media formats. The event is organized jointly by the Lodz Media Klaster Foundation, the Polish National School of Film, Television and Theatre in Lodz, and the Digital One interactive agency.
Audiovisuaalisen kulttuurin edistämiskeskus AVEK (2013) http://www.kopiosto.fi/avek/tuen_hakeminen/fi_FI/CreMA	**CreMA** is a flexible grant directed for innovative cross-sector product-and service development projects. CreMA is targeted to projects of creative industry knowhow for the use of other industries or where the creative industries can gain business knowledge from other industries. The aim is also to develop cross-sector cooperation and business models. CreMA is funded by the Ministry of Education and Culture.
Demola (2015) http://www.demola.net/about	**Demola** is an innovation platform bringing together university students and companies to facilitate co-creation and collaboration in international networks. The concept is based on cross-sectoral co-creation where multidisciplinary student teams work on real life challenges initiated by companies. Demola operates as a nonprofit organization. The Demola Network has centres in Finland, Lithuania, Hungary, Sweden, Slovenia, Latvia, Russian Federation and Basque country. Originally, Demola was initiated by the Creative Tampere development project and has since operated independently
Luova Suomi (2015) http://www.luovasuomi.fi/verkosto/luovienalojenverkosto/rikastamo	**Rikastamo**-coaching concept aims to bring together the knowledge and skills of CIs and other sectors. It is directed for e.g. companies, who are developing further their services or products or creating new ones, and who are in need of multi-sectoral networks and partners. Rikastamo is operated by the Ministry of Employment and the Economy.
Luovamo (2014) http://luovamo.fi/luovamo	**Luovamo** was a project (ended in 2014), maintaining an information and career service centre, specialized in servicing creative industry employees and applicants, raising awareness of CI among employers and creating networks between businesses and creative talents. Luovamo was operated by the Centre for Economic Development, Transport and the Environment.
Creative Estonia (2012)	**TeamLab**, organized by the Creative Estonia, was a product

http://www.looveesti.ee/teamlab-productdevelopment-weekend-get-your-ideas-global/	development weekend, in which designers, engineers, business and marketing managers together with people with new product ideas were developing new products. The owner of the product idea had also a possibility to gather a team of contributors who could develop the idea suitable for market conditions.
Kultuurikatel (2015) http://www.kultuurikatel.ee/tallinn_creative_hub_makerlab	**MakerLab** (operated by Tallinn Creative Hub) provides spaces for seminars and gatherings. There is also a machine shop and rooms for dusting and painting and a laboratory space, where it is possible to test new innovations and prototypes by using e.g. 3d-printing and laser-cut equipment.
Iceland Design Center (2013). 13AL+ http://www.icelanddesign.is/OURPROJECTS/13Al/	In Iceland, a pan-Nordic project **13AL+** (by Iceland Design Center) joined together Icelandic designers and Swedish aluminum manufacturing companies, in order to explore how design can be used as a driver for innovation within the metal industry and how the knowhow can be translated into tangible products in cooperation with designers and industry manufacturers.
Innovation Center Iceland (2015). Fab Lab http://www.nmi.is/support/still-thinking/fab-lab/	**Fab Lab** (by Innovation Center Iceland) is a digital workshop, providing tools and equipment for individuals and companies, in order to train their creative talent and bring ideas in practice with the help of digital equipment. The Fab Lab aims to increase knowledge about digital production methods and foster innovation in Iceland.

Annex No. 1.

RENEWABLE ENERGY PRODUCTION IN LITHUANIA

According to the data of the Ministry of Energy of the Republic of Lithuania, in 2016, the share of renewable energy resources (RES) in the total energy balance of the country amounted to 25,46 percent (decreased by 0,3% compared to 2015).

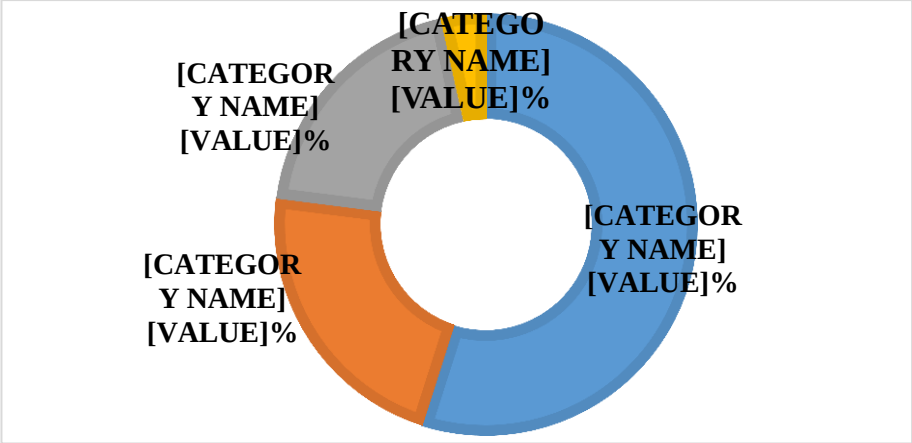
In 2016, the amount of electricity produced using RES was 1962,5 GWh. Most of the electricity was generated by inshore wind power plants (54,9%)[44] and hydroelectric power plants (22,1%). Electricity produced in biofuel power plants accounted for 19,6 percent and in solar power plants for 3,4 percent (see Table 1A and Figure 1A).

Table 1A.
Electricity generated by RES in 2016

	Electricity production	
	GWh	**%**
Wind	1078,3	54,9
Hydropower	432,8	22,1
Biofuels	384,9	19,6
The sun	66,5	3,4
Total	1962,5	

Source: Lithuanian Department of Statistics

Figure 1A.
Share of RES by sector in 2016.



[44] *Only onshore wind power generation capacities have been developed in Lithuania so far. However, offshore possibilities have recently become quite active due to several legislative amendments adopted by Parliament on July 11th, 2017, which provide a rough plan for offshore wind project development (see. https://ceelegalmatters.com/lithuania/8178-the-promising-wind-power-generation-perspectives-in-lithuania).*

According to the data of the Energy Agency operating under the Ministry of Energy of the Republic of Lithuania, 3811 power plants are currently operating in renewable energy production in Lithuania with a total installed thermal capacity of 485,241 MW and installed electricity capacity of 863,356 MW (see Table No. 2A.).

Table 2A.
Number of plants, their installed thermal and electrical capacity by renewable energy sector at the end of 2018.

Energy source	Number of power plants			Installed thermal power, MW			Installed electricity power, MW		
	Total	Manufacturers	Producing users	Total	Manufacturers	Producing users	Total	Manufacturers	Producing users
Biogas	41	41	0	9,481	9,481	0	33,36	33,36	0
Geothermal energy	1	1	0	0,082	0,082	0	0	0	0
Hydro energy	102	102	0	0	0	0	128,179	128,179	0
Landfill gas	6	6	0	1,540	1,540	0	5,992	5,992	0
Municipal waste	1	1	0	0	0	0	20,000	20,000	0
Solar energy	3290	2198	1092	0	0	0	95,910	86,320	9,590
Straw	4	4	0	4,290	4,290	0	0	0	0
Wind energy	203	201	2	0	0	0	535,425	535,419	0,006
Wood and wood waste	163	163	0	469,848	469,848	0	44,490	44,490	0
Total	**3811**	**2717**	**1094**	**485,241**	**485,241**	0	**863,356**	**853,760**	**9,596**

In Lithuania, most of power plants are solar (3290), but a significant part (33,2%) of them are made up of producing users, natural or legal persons who have installed a renewable energy power plant and produce electricity for their own use. Producing users usually have small solar power plants and their capacity is relatively insignificant. The share of electricity generated by solar power plants amounts to about 11 percent of the total electricity generated by other renewable energy sources.

Wind power plants have the highest installed electrical capacity (62%). Most of the potential for heat production from renewable energy sources comes from wood and wood waste.

According to EurObserver, in 2016, 18300 people were employed in the renewable energy sector in Lithuania. Compared to 2015, the number of people employed in various RES sectors increased by 14,4 percent. At EU level, the number of people working in the renewable energy sector decreased by 0,9 percent over the same period (see Table No. 3A.). In Lithuania, most people are employed in

energy production in the sectors of biofuels (50.3%) and biomass (25,7%). At EU level, the largest share of jobs is created by energy production from biomass (24,7%) and wind (21,6%).

Turnover from renewable energy sources in Lithuania in 2016 amounted to EUR 710 million. Since 2015, Lithuania's turnover from RES increased by 10,9 percent. Turnover from renewable energy sources in the European Union decreased by 1,5% over the period considered and amounted to EUR 149 250 million in 2016 (see Table No. 4A.).

In Lithuania, the largest share of RES turnover is generated by biofuel production (40,8%) and wind energy production (36,6%). The most significant sectors in the EU's total turnover of renewable energy sources are the production of energy from biomass (26,3%), the use of wind energy (21,4%) and energy production with the help of heat pumps (20,2%).

Table 3A
Employment by renewable energy sector

		Total	Biomass	Wind	Heat pumps	Biofuels	Biogas	Hydro	PV	Solar thermal	Waste	Geother mal
Lithuania	**2016**	18300	4700	1600	400	9200	800	300	800	<100	300	<100
	2015	16000	4000	2600	300	7500	300	<100	800	<100	200	<100
Change 2015-2016,%		*14,4*	*17,5*	*-38,5*	*33,3*	*22,7*	*166,7*	*0,0*	*200,0*	*0,0*	*50,0*	*0,0*
EU 28	**2016**	1427400	352500	309000	249400	205100	76300	95900	75900	29000	25700	8600
	2015	1440000	346100	315900	240300	178200	83700	113400	94800	30900	24500	12200
Change 2015-2016,%		*-0,9*	*1,8*	*-2,2*	*3,8*	*15,1*	*-8,8*	*-19,9*	*-15,4*	*-6,1*	*4,9*	*-29,5*

Table 4A.
Turnover by renewable energy sector

		Total	Biomass	Wind	Heat pumps	Biofuels	Biogas	Hydro	PV	Solar thermal	Waste	Geother mal
Lithuania	**2016**	710	60	260	10	290	30	10	20	<10	<10	<10
	2015	640	90	220	<10	240	30	<10	10	<10	<10	<10
Change 2015-2016,%		*10,9*	*-33,3*	*18,2*	*0,0*	*20,8*	*0,0*	*100,0*	*0,0*	*0,0*	*0,0*	*0,0*
EU 28	**2016**	149250	39250	31940	30200	13110	8620	10730	7640	3380	3430	950
	2015	151470	40280	31030	29560	11710	9540	12660	8650	3430	3220	1390
Change 2015-2016,%		*-1,5*	*-2,6*	*2,9*	*2,2*	*12,0*	*-9,6*	*-11,7*	*-15,2*	*-1,5*	*6,5*	*-31,7*

Annex No. 2.

QUALITATIVE RESEARCH METHODOLOGY

Two methods were used for data collection: semi-structured interviews and focus group discussions.

Semi-structured interviews

Semi-structured interviews were organised around a set of predetermined open-ended questions, with other questions emerging from the dialogue between interviewer and interviewee. At the start of the interview, the background of the research was explained to the participants as well as the ethical considerations relating to participation.

Interviews were conducted in in a face-to-face manner. Participants were interviewed at a venue chosen by themselves and at the time that was convenient to them. Most of the participants indicated a preference for the interviews to take place at their place of work. The average length of the interviews was approximately 30-50 minutes. All interviews were recorded on an audiotape.

For the selection of informants, the purposeful sampling was applied. The purposive sampling is used when aiming to access a particular subset of people according to the aim of study. The following criteria have been set for selection of interviewees: 1) interviewee represents the enterprise of selected creative sectors (i.e. architecture, design, advertising and software & games); 2) interviewee represents the enterprise of selected traditional businesses (i.e. tourism, maritime transport & shipbuilding, renewable energy production); 3) interviewee represents the above mentioned enterprises operating in Klaipeda or Telšiai Regions. Also, in the selection of interview participants, efforts were made to ensure that informants would represent different types of the businesses.

9 semi-structured interviews were conducted with informants who met these criteria (researchers have confirmed that 6-12 interviews seem to be an optimum number of qualitative interviews needed to reach saturation, i.e. the point at which the researcher fails to collect new information

with subsequent interviews[45]). The interviews were conducted over a period of 1 month.

Focus groups

The qualitative data collected during the interview was complemented by the focus group discussion materials. Focus groups target a purposely selected groups of individuals that are relevant to the main aim of the research.

There were 2 focus groups organized: one with the representatives of creative sector (7 participants), the other with the representatives of traditional business (6 participants). Invited groups of people were interviewed in a discussion setting in the presence of the session moderator. Discussions lasted for 90 min.

Focus group participants discussed one rather broad theme that was deepened during the discussion by asking additional questions related to the main topic. Focus groups discussions were recorded in the videotape.

Focus groups were held in Rietavas Municipality (Telšiai Region) at the premises of Rietavas Tourism and Business Information Centre.

45 https://researchforevidence.fhi360.org/riddle-me-this-how-many-interviews-or-focus-groups-are-enough

Annex No. 3.

GUIDELINES FOR INTERVIEW

— Do you believe there is a connection between business success and innovation?

— Do you agree that cross-sectoral cooperation promotes innovation?

— What is your attitude to cooperation between creative and traditional businesses?

Questions for traditional sector representatives	***Questions for creative sector representatives***
— Do you cooperate with CI?	— Do you cooperate with traditional businesses?
— What is the nature of your cooperation with CI?	— What is the nature of your cooperation with traditional business?
— In what areas do you cooperate with CI?	— In what areas do you cooperate with traditional businesses?
— Do you wish to cooperate / cooperate more closely with CI?	— Do you wish to cooperate / or cooperate more closely with traditional businesses?
— Please specify your approaches in engaging / not engaging with culture and creativity	— Please specify your approaches in engaging / not engaging with traditional businesses
— What are the main motives for cooperation with CI?	— What are the main motives for cooperation with traditional businesses?
— What are the most significant barriers for the traditional businesses engagements into the culture and creativity?	— What are the most significant barriers for the CI engagements into the traditional businesses?
— What is the way to promote closer cooperation between CI and traditional business	— Who could encourage closer cooperation between CI and traditional business?
Please provide any examples of best practices, methods & tools that exist on the market in cross sectoral collaboration of traditional business and CI.	

LIST OF INTERVIEW INFORMANTS

No.	Sectors of economic activity of enterprise	Region
1.	Design	Klaipeda
2.	Architecture	Klaipeda
3.	Maritime transport	Klaipeda
4.	Tourism Travel agency	Klaipeda
5.	Software/computer	Klaipeda
6.	Design/architecture	Telšiai
7.	Renewable	Telšiai
8.	Tourism	Telšiai
9.	Shipbuilding (furnishing)	Telšiai

Annex No. 4.

FOCUS GROUPS DISCUSSIONS THEMES

1. Focus Group (with representatives of traditional business)

What is traditional business demand for cooperation with the creative sector?

- Does traditional business feel the need for creative services? (If „yes“, what services?)
- What are the aims of collaboration with 'creators'?
- If there is a need for creative services, what forms it?
- If there is no need, what are the main reasons and / or barriers?
- How could such a need be encouraged?

2. Focus Group (with representatives of creative sector)

What is creative sector supply capacity for cooperation with the traditional business?

- Do 'creators' tend to cooperate with traditional business?
- What kind of cooperation is the most appropriate for creators?
- What are the main barriers for cooperation with traditional business?
- What, from the point of view of 'creators', could help to establish / strengthen cooperation with traditional business?