



ArtS – Skills for the Creative Economy

R2.2. Mapping the Greek Cultural & Creative Sectors Skills

WP2: Defining sector skill shortages and ECVET strategy

Author: Athens Chamber of Tradesmen

Co-funded by the
Erasmus+ Programme
of the European Union



Project information

Project acronym:	ArtS
Project title:	Skills for the Creative Economy
Agreement number:	2014 – 3174 / 001 - 001
Sub-programme or KA:	KA2 Sector Skills Alliances
Project website:	arts-project.eu
Authoring partner:	Athens Chamber of Tradesmen
Report version:	2.0
Date of preparation:	19-5-2015

Document history

Date	Version	Author(s)	Description
4.5.2015	1.0	Athens Chamber of Tradesmen	Mapping the Greek Cultural & Creative Sectors Skills
19.5.2015	2.0	Athens Chamber of Tradesmen	Mapping the Greek Cultural & Creative Sectors Skills
19.5.2015	3.0	Athens Chamber of Tradesmen	Mapping the Greek Cultural & Creative Sectors Skills

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With the support of the Erasmus+ Programme of the European Union.

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1. Introduction

Scope of mapping

Cultural and creative industries (CCIs) are at the crossroads of arts, culture, business and technology and can be defined as those economic activities that strongly rely on individual creativity, skills and talent and in principal produce intellectual property in contrast to material goods or immediately consumable services (UNCTAD, 2008). Whilst there is a strong consensus, at least in Western countries, that the CCIs offer significant prospects for individual growth and fulfillment, for social cohesion, and business development, as well as for national prosperity, wealth creation and well-being (e.g., UNCTAD, 2008; CEC 2010), the concept of the CCIs is a relatively recent one, with some attributing its emergence to Australia's (1994) *Creative Nation* Report. Two big challenges with understanding the CCIs are:

- Developing an agreed or harmonized understanding of what these activities or industries are; and
- Obtaining statistical data to understand their size, shape, dynamics, and inter-relations with other sectors and activities.

Contributing to growth, job creation and internationalization, creative industries (CIs) are widely recognized as a highly dynamic part of many economies which seems to be more resilient to economic recessions relevant to other sectors (UNCTAD, 2010). Indeed, in times of financial and economic crisis, these industries become even more attractive as a source of potential employment and entrepreneurial endeavour (Henry & De Bruin, 2011). According to the latest data available in 2011, the creative industries of the economy in the EU-27 created a total value of EUR 558 billion €, representing approximately 4.4% of total European GDP and 8.3 million full-time jobs (Terra Consultants, 2014). Indicative of the importance attributed to the creative and cultural industries in Europe are the initiatives aiming at the development of policies at the national and regional level to support and promote them. For instance, the CCIs are a priority aspect of the Council's Work Plan for Culture 2011-2014, and the significance of the CCIs is highlighted in key policy documents, including the Europe 2020 Strategy and its flagships, the Innovation Union, the Digital

Agenda for Europe, the Agenda for New Skills and Jobs, and the Commission's recent Intellectual Property Rights (IPR) Strategy. Harnessing and enhancing the contribution of culture, creativity and the CCI to innovation, wealth creation and social welfare are amongst the fundamental aims of these national, regional and EU policy initiatives.

The creative economy can be a lever of development also for Greece. Greece, however, is yet to take full advantage of the creative industries' significant opportunities to find alternative solutions to its economic woes. An active and continuous dialogue on these issues could assist in realizing a) the actual creative capital available in the country, and b) the policy action that is needed, both at the local and national level, to establish the appropriate business environment required to support and empower Creativity as an essential factor for development.

The ArtS project is a good opportunity to investigate the Creative and Cultural Sector in Greece. More specifically, the ArtS project aiming at exploring and recording the dynamics of the Creative and Cultural Sector in Greece (along with Italy and Spain), will attempt both the detection and precise definition of the skills required in various branches of the sector today, as well as the mapping of the deficit observed in substantial horizontal skills. The development and further strengthening of skills through adequate education and training programs in these sectors is considered essential in order to stimulate creative entrepreneurship and reduce the relative unemployment.

Definition of the sector and sub-sector to be used for the mapping (attached 1)

A review of the policy literature indicates that although several questions and issues regarding the definitional coherence of CCIs still remain open, there is increasing consensus on which sectors should or should not be included in the creative industries group. However some debates still exist about the activities that should be considered to belong in the 'core' of the creative or cultural industries (Flew and Cunningham, 2010).

2. Overview of current trends and challenges for the Cultural and creative Sector

2.1 General overview of the cultural and Creative Sector

Employment in the CCI

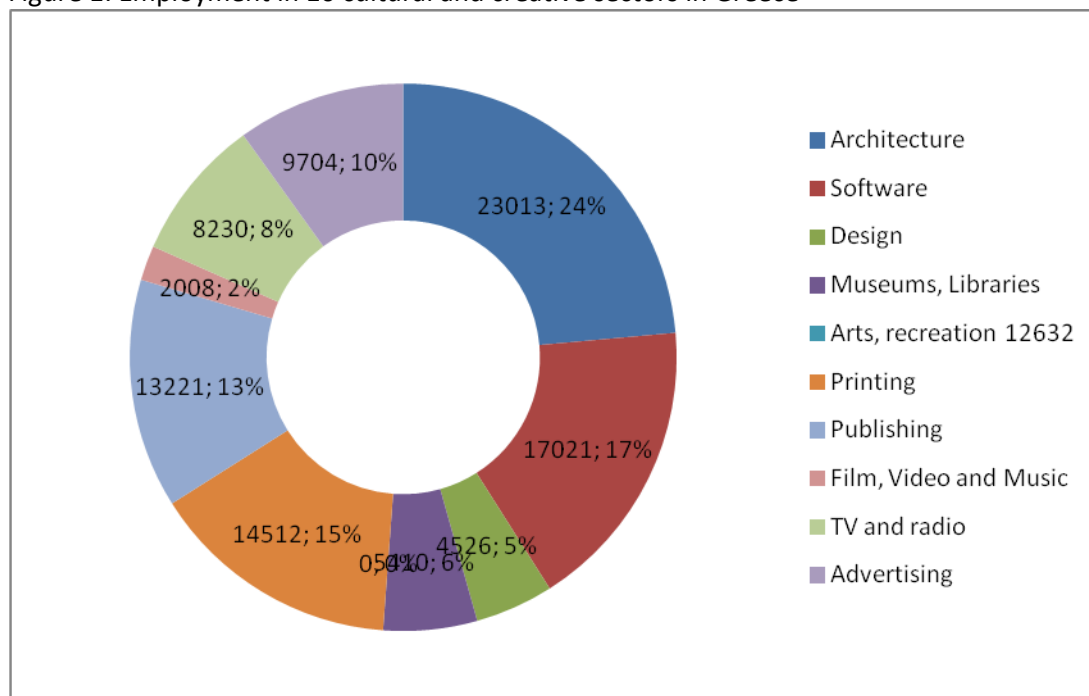
Cultural and creative sectors comprise a large number of significantly heterogeneous sub-sectors and industries which also appear to exhibit diverse features in terms of organization, market structure, economic magnitude and government support across countries or even across regions of a country (HKU, 2010; Henry, 2007). In this regard, one should also expect great variation in the characteristics and challenges of entrepreneurs being engaged in different industries of different countries and regions. These discrepancies in the entrepreneurial environment along with the definition difficulties mentioned above constitute crucial reasons for the limited availability of empirical evidence being applicable over the whole cultural and creative sector.

As concerns the forms of employment in CCIs, the literature suggests that cultural and creative entrepreneurs are far more likely to be engaged in *non-conventional* employment based on part-time work, temporary contracts and freelancing, than the workforce in general. In this vein, Ellmeier (2003) emphasize on the *atypical* forms of employment and the *precarious* working conditions in cultural and creative sector involving flexibility, mobility, project work, voluntary or very low-paid activities.

Taking into consideration the abovementioned special characteristics of employment in CCIs it can be easily understood that it is very difficult to accurately estimate employment in the Greek CCIs using the available data sources. More specifically, on the one hand, the NACE classification used by the Hellenic Statistical Authority and then by Eurostat does not include a detailed 4-digit code analysis, on the other hand, a considerable number of people working in the CCIs either does not “officially declare” as its primary employment sector one of these industries (although he/she is actually employed in them) or works without insurance and healthcare provision. For example, a research on the professional situation of authors in Greece has indicated that 15% of them recognize book writing as their main income source, while 66% of them acknowledge that their health insurance is related to employment which is irrelevant to their writing activity (Avdikos, 2014). Another limitation of official statistical data is that they do not take into account voluntary (i.e. unpaid) or temporary employment (e.g. internships).

Therefore, the estimations about the employment in CCIs can differ according to the available statistical data and their sources as well as on the selection process of the specific industries. A recent study based on Eurostat data estimated employment in 10 CCIs in Greece, (namely, architecture, publishing, printing, software, film, video and music, advertising, arts and recreation, museums and libraries, design, tv and radio) for the first trimester of 2013 (Avdikos, 2014). The total number of employees in these sectors reaches 110,000 people and accounts for 3% of total employment in Greece. A share of 24% or 23,103 people are employed in architectural agencies while only 2,008 people or a share of 2% are employed in film, video and music industry.

Figure 1: Employment in 10 cultural and creative sectors in Greece



Source: Avdikos, 2014

In another study¹, which is not based on the NACE classification, but mainly on information gathered from professional organizations/registries, it is stated that the employment in the cultural sector alone is estimated at more than 100,000 people for 2012. More specifically, it shows that professionals in the area of television, film industry and live events are 20,850, in arts 5,755, those working in museums, archeological sites and libraries are 19,429, in music

¹ Katerina Lympieropoulou, The Civilization of the Crisis, Journal "To Vima", 3/3/2013, accessible at <http://www.tovima.gr/culture/article/?aid=500708> (in Greek)

and ballet schools there are 9,408 employees, while impressive is the number of those that exercise literary professions which reach 55,000.

In addition, Eurostat, based on the ISCO classification, reports that in 2009 the number of writers and artists in performing arts all over Greece were approximately 22,900. Finally, the Priority Sector Report on the CCI of the European Cluster Observatory (Power, 2011) estimates the location quotient index of CCIs in Greece at 1.12 ranking Greece in the 17th position among 30 European countries which practically means that there a tendency of overconcentration of the creative and cultural activities in Greece.

Economic crisis and employment in the CCIs

According to Avdikos (2014) in Greece the employment in the 10 CCIs presented in the previous section decreased between 2008 and 2013 from 156,000 to 110,000 employees (i.e. a decrease of 30%) while in the EU-27 the total number of people employed in these sectors remained invariant. It appears that in terms of employment the economic crisis had a significant impact on CCIs since 2009 as five out of ten industries decreased their number of employees drastically and much more intensively than EU-27. The individual industries exhibiting the greater decrease in terms of employment were those of printing (- 67%, 2008-2013), and museums-libraries (-54%, 2008-2013) when in EU-27 the relevant decrease was 22.5% for the former and only 2.4% for the latter industry during the same period. Significant decline in employment was also identified in the filming and music industries, which despite the fact that they exhibited an increase between 2008 and 2010 they displayed a great decrease in the next period. Contrary to the abovementioned sectors, design and software industries showed a considerable increase in employment, 62.2% and 26.9% respectively. These two industries were also the only ones which showed an increase in employment in EU-27 as well (33.5% and 15.5 respectively).

Entrepreneurship in the CCIs

Within the cultural and creative sector many people start and run enterprises of different kinds, from self-employed artists to owners of globally significant business organizations . This is reflected in relevant statistics according to which around 80% of enterprises in CCIs are very small or 'micro-enterprises' (employing fewer than 10 people), while the corresponding percentage of large-scale enterprises is marginal, at less than 1% (HKU, 2010). Notably, almost 60% of 'micro-enterprises' consists of very small micro-businesses with only

1 to 3 employees (HKU, 2010). These statistics reveal a noteworthy feature of CCI, which is the absence of medium-sized enterprises which is often called the 'missing middle'.

The entrepreneurial incentives in CCI may have important implications related to business profitability, size and growth. The intention/motivation to set-up a creative venture may have various drivers such as personal-fulfillment, independence, self-reliance, etc., however, the generation of value is also an important reason. For a creative person the concept of value can have several underlying dimensions related to financial, social and emotional aspects (Kurz, 2010). Non-financial rewards constitute a significant benefit of value creation. For instance, empirical evidence, suggests that for young fashion designers who become entrepreneurs, the established business should be profitable, nevertheless they do not necessarily expect to make a fortune out of it as they put their emphasis on the creative side of the new venture (Kurz, 2010).

This is a significant aspect since it can have an impact on the company growth. If a firm founder prefers a small-scale firm then future growth is not a main issue. It is well articulated in the challenge of growth is a horizontal problem in entrepreneurship. Nevertheless it is manifested more obviously in creative entrepreneurial ventures not only because creative entrepreneurs are more occupied with their idea and less oriented towards business activities than archetypical entrepreneurs but also because they often have less experience with growth issues and less management skills (Sundbo, 2011). Empirical analysis also shows that although many artistic entrepreneurs survive they rarely grow even if they intend to as a result of intense competition conditions in local and global markets. In addition, many of them are unable to attract capital investment while at the same time they are less risky and they do not like to take credit (Sundbo, 2011; Karz, 2010).

Sales, contribution to GDP and number of firms in CCI in Greece

Estimating the economic contribution of individual CCI to the national economy, the number of firms and the employment are essential first steps in order to map these sectors and better understand the economic environment they are incorporated in.

In 2006, the total sales of the 13 CCI shown in Table 1 was 11.7 billion € while the total increase in sales between 2000 and 2006 was 69.1% (i.e. an average sales increase per year of 10%). Taking into consideration that the increase of the Greek GDP during the same time period was 23% one can easily understand that cultural and creative industries in Greece

grew at much higher rate compared to the growth rate of the national economy between 2000 and 2006. In 2006, the number of firms active in the 13 CCIs was 71,291 (Table 2), i.e. it followed the increasing trend in sales and grew significantly (63.5%) since 2000. The most important sectors in terms of sales were advertising, publishing, television and radio and architecture, while the majority of young firms which began their operation between 2000 and 2006 were active in music, libraries-museums, cinema-video and software.

The growth of the cultural and creative sector in Greece has been greater compared to that of other sectors of the domestic economy while at the same time CCIs turnover is much bigger than that of many traditional sectors. Therefore, it is clear that CCIs are a very significant part of the Greek economy.

Table 1: Annual turnover of 13 CCIs

	Turnover				
	2000	Percentage in 2000 (%)	2006	Percentage in 2006 (%)	D 2000-2006
Publishing	1,048	15.1%	2,115	18.0%	101.8%
Printing	850	12.2%	1,126	9.6%	32.5%
Film and video	452	6.5%	822	7.0%	81.9%
Photography	153	2.2%	180	1.5%	17.6%
Music	14	0.2%	135	1.1%	864.3%
Television and Radio	478	6.9%	1,389	11.8%	190.6%
Arts and Entertainment	439	6.3%	377	3.2%	-14.1%
Libraries and Museums	14	0.2%	223	1.9%	1492.9%
Cultural Commerce	508	7.3%	854	7.3%	68.1%
Architecture	1,020	14.7%	1,301	11.1%	27.5%
Specialized Design			71	0.6%	
Advertising	1,580	22.7%	2,186	18.6%	38.4%
Software	401	5.8%	988	8.4%	146.4%
Total	6,957	100.0%	11,767	100.0%	69.1%

Source: Avdikos (2014)

Table 2: Number of businesses in 13 CCIs

	Turnover					
	2000	Percentage of total	2006	Percentage of total	D 2000-2006	Average turnover per firm
Publishing	1,878	4.3%	2,802	3.9%	49.2%	754,818
Printing	4,754	10.9%	4,323	6.1%	-9.1%	260,467
Film and video	1,365	3.1%	3,890	5.5%	185.0%	211,311
Photography	2,311	5.3%	3,320	4.7%	43.7%	54,217
Music	103	0.2%	519	0.7%	403.9%	260,116
Television and Radio	774	1.8%	1,184	1.7%	53.0%	1,173,142
Arts and Entertainment	6,673	15.3%	10,066	14.1%	50.8%	37,453

Libraries and Museums	247	0.6%	905	1.3%	266.4%	246,409
Cultural Commerce	3,976	9.1%	5,488	7.7%	38.0%	155,612
Architecture	17,280	39.6%	27,183	38.1%	57.3%	47,861
Specialized Design			2,284	3.2%		31,086
Advertising	2,860	6.6%	5,513	7.7%	92.8%	396,517
Software	1,381	3.2%	3,814	5.3%	176.2%	259,046
Total	43,602	100.0%	71,291	100.0%	63.5%	165,056

Source: Avdikos (2014)

The economic crisis which practically affected the Greek Economy from 2009 onwards, it appears to be more evident in most CCI only in 2010. According to Avdikos (2014) the Gross Added Value (GVA) in 8 basic cultural and creative sectors reached its highest point in 2009 (aprox. 5.9 billion €) while in 2010 and 2011 decreased in 5.3 and 4.6 billion € respectively, a total decrease of about 27% (2009-2011). During the same time period the Greek GDP decreased by 10%. This practically suggests that although the impact of the crisis was visible in the CCIs one year later, this impact was harsher than that on the whole Greek economy.

The GVA decrease and, in consequence, the decrease in sales can be mainly attributed to two facts. First, creative and cultural industries are essentially populated by small and very small firms, which are extremely vulnerable to demand fluctuations; can easily exhibit cash flow problems and have a less reliable access to bank financing. Second, many creative firms usually constitute the most innovative part of complex value chains, (for instance, connection of advertising-music and tv/radio), which practically means that they sell products or services as intermediate products to other sectors which may or may not belong to the CCIs. As a result when the latter are facing a demand decline of their products, they begin decreasing, sometimes much more intensely, their own inflows (e.g. advertising). (Avdikos, 2014).

Regional disparities in the production of cultural and creative goods

A comprehensive mapping of the economic contribution of the cultural and creative industries should include the dynamic of these industries not only at national but also at regional level. This regional analysis would help us illustrate the spatial concentration and disparities of this sector in Greece. In most OECD countries, the production of cultural goods tends to be concentrated in large urban areas where population density is a decisive factor

(Power, 2002). In addition, productive diversity and cultural events can also be considered as important facilitators of this phenomenon (Lazzeretti et al., 2012). The Attica region, where Athens the capital of Greece is located, has an important position in the economy and geography of the Greek CCI, as 85% of the cultural and creative goods are produced in Attica, while 58% of the businesses are located in the region and 59% of the professionals employed in the CCI live there (Avdikos, 2014). It is therefore clear, that the CCIs are concentrated in the capital, signifying the great geographical disparities of the sector in Greece.

More specifically, according to a recent study by Avdikos (2014), in the Attika region there are approximately 30,000 businesses active in the CCIs (see Table 3). These businesses generate a value of 8.5 billion €, which corresponds to 3.3% of the Attica region GDP for 2006. The Central Macedonia region follows the Attica region, with 8,000 creative and cultural businesses, that have 655 million € annual turnover (0.8% of the regional GDP). The Thessaly region is the third region with 2,237 businesses and 138 million euro annual turnover (0.7% of the regional GDP) and lastly the North Aegean region involves 591 businesses and annual turnover 31 million € (0.6% of the regional GDP). Therefore, businesses active in the CCIs in Greece are overconcentrated in the Attica region and are scarcely present in other regions.

It's only natural for a business active in the cultural sector (theatrical and film productions, concerts, radio and television productions, book and newspaper publishes etc.) or in other creative sectors (radio, television, specialized design, software etc.) to choose to be located in the Attica region, since (a) half of the Greek population is located there generating a huge local demand and (b) goods produced in Athens can be consumed all over the country (national products, e.g. a television show, a nationwide newspaper etc.). This is why a large share of the annual turnover of the CCIs is attributed to businesses specializing in television and radio productions, film productions, advertising and publishing activities which are established in Athens.

Furthermore, (c) there is a huge quality gap regarding the intermediate goods produced in Athens and the rest of the country's regions (raw materials, design and promoting services etc.), while the transportation costs are minimal, (d) a huge number of specialized workforce is located in the capital, while there is also a huge number of students at the local Universities and Technological Educational Institutes, so (e) businesses active in the CCIs

«win» from an environment where new knowledge and ideas are continuously diffused (knowledge spillovers). In addition to the above mentioned reasons, many similar companies from the CCIIs tend to concentrate in specific Athenian districts, due to specific historical conditions (path-dependency), reaping the benefits of the economies of localization. This geographical concentration gives them the opportunity to trade products and services and exchange information at lower costs, choosing the most specialized professionals, utilizing common infrastructure and minimizing market «uncertainties» through internal and interdisciplinary cooperations (Avdikos, 2014).

The concentration of the CCIIs in the Attica region appears to be more intensive compared to other European urban areas. For example, in Sweden, 34% of the CCIIs are located in Stockholm, in Norway 41% is located in Oslo, in the UK 24% is located in London (Avdikos, 2014). The strong geographical disparities regarding the production of cultural and creative goods in Greece can be attributed to the fact that the majority of manufacturing and services firms across sectors had always been clustered in the Attica region, resulting in further urbanization and desolation of rural areas. On the other hand, policies supporting the CCIIs development in the periphery of Greece were rarely linked to other policies for regional and local development.

Employment and characteristics of human resources

Although statistics on the evolution of the Greek CCI sector are almost non-existent, according to a recent study (Power 2011), the Attica region, is considered as one of the top 25 regions in terms of employment performance in Europe for 2007 (out of 266 regions in 30 countries). At a national level, Greece had the 18th position among 30 European countries as employment in CCIIs accounted for 4.1% the total employment. It is worth mentioning that richer and stronger economies such as Italy and France are ahead of Greece by one or two positions while Germany and Spain follow in ranking.

In Athens, creative professionals² reach 71,300 people in the third trimester of 2010. In this context, it can be estimated that CCIIs employed around 80,000 people in 2010, a number which corresponds to a 2% share of the employees of the capital, while two years ago this number reached approximately 100,000 people (Avdikos, 2014).

² These creative professionals are employed in the following sectors: printing and publishing, film, video and music, television and radio, architecture, advertising, arts, museums and libraries.

Employment in the CCI in Athens in 2010 declined by 19% compared to 2008, while the corresponding decline in the rest of Greece was 9%. The economic crisis deprived Athens of approximately 17,000 jobs in its first two years (2009-2010), while it appears that the crisis's impact on the CCIs was much greater in Athens than the rest of Greece. For example, the number of employees in the arts was reduced by 48% in two years, while in the rest of Greece it was reduced by 13%. The printing and publishing, advertising and architectural sectors saw relevant reductions. In 2010, the majority of creative workforce was employed in publishing and printing (29,536), followed by architects (13,491), employees in advertising (9,471) and in production of radio and television programs (7,619) (Avdikos, 2014).

At this point, it is important to mention the gradual increase of self employment and small "creative groups" during the first two years of the crisis. From 2010 onwards many semi-professional theatrical groups, new galleries, small collectives active in specialized design and many new film ventures appeared. The frequency of these ventures' appearance has been by far greater than the period before the economic crisis and can be attributed to the fact that those becoming self-employed have been let go from their previous jobs and their only professional outlet is the initiation of a collective or personal venture (Avdikos, 2014).

Finally, creative professionals appear to share some common characteristics: (a) most of them are young (less than 40 years old); (b) in many cases they appear to work without social security, they not to declare their income from creative employment in order to avoid indirect taxation (VAT) as they cannot afford the cost; (c) the most important funding source for their ventures are friends and relatives; (d) they are well-educated (Avdikos, 2014; LIEE/NTUA, 2015).

Table 3: Turnover and number of businesses in the CCI in Greece per region

Region	Printing		Publishing		Film, video		Television, Radio		Architecture		Advertising		Arts, Entertainment		Museums, Libraries		Total (1)		Total (2)	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	%	1	%
Eastern Macedonia – Thrace	108	33,7	85	16,9	47	2,5	92	5,2	182	45,4	108	4,0	144	3,6	16	0,1	782	1,5%	111	1,1%
Central Macedonia	630	116,5	384	137,9	225	17,0	181	36,4	4.538	174,0	828	114,2	1052	51,4	145	7,4	7983	15,1%	655	6,6%
West Macedonia	41	2,9	41	2,8	17	0,8	44	2,1	525	29,3	42	9,3	102	1,7	22	0,3	834	1,6%	49	0,5%
Thessaly	139	31,1	76	24,2	56	1,6	77	7,2	1.412	55,0	173	10,0	260	7,7	44	1,2	2237	4,2%	138	1,4%
Epirus	61	4,7	66	5,6	18	0,5	36	1,2	695	35,4	72	4,2	120	1,9	97	1,4	1165	2,2%	55	0,6%
Ionian Islands	41	2,3	37	2,2	23	0,9	36	1,1	362	17,2	72	1,3	143	4,5	37	0,4	751	1,4%	30	0,3%
Attica	1995	913,1	2414	2301	1657	756	288	1305	13921	717	3518	1996,8	6462	265,8	405	213	30660	57,8%	8468	84,9%
Western Greece	110	11	127	27,8	44	2,5	77	7,2	1.123	47,6	150	12,8	215	4,8	42	0,8	1888	3,6%	115	1,1%
Central Greece	85	4,7	70	5,6	36	1,2	59	4,0	842	44,3	112	8,5	138	2,5	30	0,2	1372	2,6%	71	0,7%
Peloponnese	89	10,3	98	6,9	55	2,4	95	4,6	877	42,7	109	3,8	251	2,9	23	0,2	1597	3,0%	74	0,7%
North Aegean	35	3,4	43	3,5	25	0,7	44	2,3	274	16,5	35	1,6	119	2,5	16	0,3	591	1,1%	31	0,3%
South Aegean	57	9,5	56	4,5	33	2,3	65	3,1	514	24,3	82	3,6	217	6,2	33	0,4	1057	2,0%	54	0,5%
Crete	111	22,2	99	17,8	64	7,6	90	7,5	1.187	52,3	211	11,9	332	5,2	26	1,3	2120	4,0%	126	1,3%
Total	3502	1165,4	3596	2.556,7	2300	796	1184	1387	27183	1301	5512	2186	9555	361	936	227	53037	100,0%	9976	100,0%
% Attica	57,0%	78,4%	67,1%	90,0%	72,0%	95,0%	24,3%	94,1%	51,2%	55,1%	63,8%	91,3%	67,6%	73,7%	43,3%	93,8%	57,8%		84,9%	

Source: Avdikos (2014)

Imports and exports of creative and cultural goods

The available statistical data from the Hellenic Statistical Authority regarding the imports and exports of creative and cultural goods are very limited and include a few sectors (e.g. music, photographic and cinematographic goods). As a result it is difficult to draw a complete picture of the value of imports and exports in specific cultural and creative sectors (Avdikos, 2014).

A more analytical picture can be drawn by utilizing the statistical series of international trade of the United Nations Database. Although between 2002 and 2011 the value of international trade in Greece for cultural and creative goods increased rapidly, the overall balance remained negative (Table 4). The negative position is determined by the trade deficit regarding cultural and creative products, while the small -although increasing through time- surplus in services is not adequate to overthrow negative balance (Lazaretou, 2014).

Table 4: Imports and exports in the cultural and creative sector in Greece

	2002			2011		
	Exports	Imports	Balance	Exports	Imports	Balance
All categories	836	1,517	-681	1,646	2,348	-702
Products	413	1146	-733	875	1712	-837
Services	423	371	52	771	636	135

Source: Lazaretou, 2014

All the categories of products and services grew rapidly between 2002 and 2011. The more extrovert activities were design (mainly fashion and furniture design), publication of books, video games, advertising and market research. Exports in the design sector accounted for 76.8% of the total exported cultural and creative products while the import share (as part of total imports) of this activity is the highest (66.8%). The less extrovert activities were those of audiovisual media and visual arts (Table 5).

Table 5: Imports and Exports of cultural and creative products and services per sector

Cultural and Creative products: Share per category 2002 and 2011				
	Imports (%)		Exports (%)	
	2002	2011	2002	2011
<i>Every category</i>	100	100	100	100
Works of art	13.32	8.42	9.68	6.30
Audiovisual media	0.14	0.11	0.12	0.05
Design	65.31	66.83	70.98	76.79

New audio recording media and electronic games	5.09	7.40	6.36	5.51
Publishing	12.65	13.09	9.07	9.62
Visual arts	2.81	4.14	2.11	1.70
Cultural and Creative services: Share per category 2002 and 2011				
	Imports (%)		Exports (%)	
	2002	2011	2002	2011
<i>Every category</i>	100	100	100	100
Advertising, market research and polls	17.79	19.81	21.04	31.26
Audiovisual production services and related services	16.98	19.65	18.91	21.92
Personal, cultural and recreation services	49.06	39.15	45.86	28.02
Research and Development	16.17	21.38	14.18	18.81

Source: Lazaretou, 2014

Furthermore the share of Greece in the total value of world trade in cultural and creative products, as well as in the EU-27 trade, is small with no apparent signs of further penetration. In 2011, the Greek imports accounted for 0.86% of total imports while Greek exports represented only 0.4% of the total EU-27 exports (without weighting as to size of the country). Weighted as to country's population export value per capita is four times less than the per capita value of EU-27 exports.

2.2 Overview of the skills of the sector

Cultural and creative entrepreneurs share many of the entrepreneurial personality traits also identified in typical entrepreneurs such as locus of control, innovation and achievement motivation, high tolerance to ambiguity, perseverance, self-reliance, adaptability, autonomy, creativity and innovation. Accordingly, both types of entrepreneurs are characterized by the willingness to assume risks, the alertness of opportunity and the change perspective (Kooyman, 2012). For instance, dealing with risk factors is a core entrepreneurial attribute in the music industry as entrepreneurs usually take risks with newly composed songs, new interpretations or the novel integration of different music types (Rae, 2007).

However, entrepreneurs in the CCIs require a special set of skills as a consequence of the fact that they have to interact with different parts of the creative industries value chain (marketing, distribution, consumption) in order to sell their talent and products. For instance any cultural production, be it music, video, or computer games requires the engagement of diverse enterprises operating independently and in complex and specialized ways. Self employed entrepreneurs that attempt to sell their ideas, talent and skills have to work and cooperate closely with production and distribution companies in a shared enterprise. Thus they are depended on a highly networked environment of workers and firms. Although the

inputs of entrepreneurs in the creative industries value chain stem mainly from their inspiration and creative dynamic and are dissimilar to inputs pertaining to more ordinary economic incentives the combination of both types of inputs is required in order to add value in a particular activity (Rae, 2007, de Bruin, 2007).

Considering for instance the film industry, creative entrepreneurs who successfully combine both types of inputs – creative (actors, scriptwriters, costume designers, music composers) and economic (finance, organization, coordination, project management) – creating value are film makers producing blockbusters (de Bruin, 2007). To take an example from the music industry, an artist that composes music produces some initial creative input which in turn however has to be transformed into a commercial marketable product. The music composer might do it on its own by burning some CDs and promote them personally into the market. This would be a value adding link in the particular industry chain with the artist being entrepreneurial. Another link to the value chain may be effectuated when an agent or an intermediary promotes the CD to a record label instead of the artist himself or herself. When the artist is signed to the record label using the promotional and marketing services of agents there is a further link in the chain and further value added to it while the relevant network is becoming denser (Rae, 2007).

A prerequisite for an artist aiming at developing entrepreneurial activity is to gain access to the appropriate market for her artistic or cultural product. In fact, as mentioned above, a key attribute common to both creative and typical entrepreneurs is the *alertness of opportunity* which refers to the detection and exploitation of market opportunities that have been overlooked or gone undiscovered by others. Focusing on the CCIs, labour and product markets generally characterized by high uncertainties, risks and unpredictable demand conditions may raise additional obstacles for starting up a business within the cultural sector as compared to the non-cultural sector. What is more, limited knowledge of the markets and, especially, the external ones entails increased difficulty for many entrepreneurs in CCIs in identifying and exploiting market opportunities (HKU, 2010).

On the other hand, technological developments and specifically the digitalization of the relevant markets bring about new market opportunities for producers of content, and generate significant growth prospects for the cultural and creative sector. This can be demonstrated by the emergence of a considerable number of new cultural professions including the information broker, online editor/author, music software expert, DJ service,

website designer/computer graphics artist, multimedia designer and multimedia producer, video editor, audio engineer and digital moviemaker (Ellmeier, 2003). The increasing number of people participating in the arts through electronic and media is indicative of the potential that digital media can offer in terms of new market opportunities (HKU, 2010).

Therefore, skills related to the utilization of new technologies (e.g. the lack of creative and technical skills to produce content for distribution to all potentially available technology platforms, and the ability to understand and exploit technological advances) are important to CCIs. Digital technology has for instance a major impact on the design industry, leading to shorter design timelines, faster communication, rapid creation of prototypes, and companies that need fewer people to do more business. The majority of designers believe that skill needs are changing and the most common reason is technological progress. In the music industry the effects of digitization are multiple as well, ranging from product delivery on digital platforms to ease of creating and recording new music in digital publishing and marketing. In the UK, sales of singles are mainly digital (95%) and the future is likely to be driven by the adoption of music distribution platforms that enable on-demand access regardless of location.

Finally, another set of skills that are important to the CCIs are Intellectual property protection skills. Understanding Intellectual property law (patents, industrial designs, trademarks, copyrights) for protection against piracy, with a particular emphasis on addressing illegal downloading and copyright infringement

3. Current skill needs

A series of in-depth interviews carried out in 20 young firms active in the creative industries in Greece revealed some interesting findings regarding the shortage of skills among creative entrepreneurs (LIEE/NTUA, 2015). These firms originated from different creative sectors and subsectors, such as advertizing branding and design, fashion and product design, architecture, video games, motion picture and video production. The case study work was conducted between May and July 2014 using an interview protocol and the firm founders (or founding team) were interviewed. The creative entrepreneurs interviewed appear to be highly educated and with significant prior working experience in the same industry. Their main motivation for starting up their own business seems to be their need to realize their own ideas. Moreover, they expressed their dedication to expanding their companies while at

the same time they stressed that their firms' growth has to occur in a controllable and manageable way, as their main concern is to stay true to their creative identity and not jeopardize the quality of their work (LIEE/NTUA, 2015).

Professionals active in the creative and cultural sector acknowledge their artistic and creative expertise as their company's competitive advantage. In most cases, this is combined with managerial expertise, as it is necessary, but they argue that creativity and innovative ideas are their main advantages. They feel that their artistic and creative expertise and their technical and engineering expertise differentiate them from competitors. Furthermore, they feel that the quality of their work distinguishes them from competitors. An innovative mindset is also important, in combination with a deep knowledge of the field. Usually, professionals in the creative field have diverse skill sets, and offer technical and engineering expertise, market expertise, creative and artistic expertise and managerial expertise. These creative professionals believe that the artistic and creative expertise distinguishes them from big companies that produce on a massive scale losing the necessary creativity and artistic flair that they have (LIEE/NTUA, 2015).

In addition the creative professionals interviewed stressed the importance of entrepreneurial skills to their businesses. More specifically, they suggest that the most relevant entrepreneurial/managerial skills for their industry are communication skills and problem solving skills, which they utilize every day in order to have meaningful communication with their customers and meet all of their needs. They consider leadership skills, communication skills, problem solving skills and networking skills very important to their businesses, as apart from the creative part they still have to run their companies and cooperate with clients and partners. They also need to possess creative thinking so as to be successful in their work. An international export vision is essential, especially for the firms that aim at international markets. In addition, they believe that they need leadership and networking skills, business plan vision, administrative/financial skills and readiness to take risks in order to grow and expand their firms. Creative professionals feel that readiness to take risks is the only way to succeed in this industry.

The creative entrepreneurs describe the difficulty they faced in gaining the necessary entrepreneurial skills as they were not taught in their academic curriculum during their studies. They state that they gained these skills mainly through learning-by-doing, on-site learning experiences and internships. Creative professionals value lifelong learning initiatives

and training courses, although such opportunities are rare and not always useful due to their theoretical approach. However, they consider attending courses, exhibitions and communicating with fellow creators in other countries extremely important, because this way they learn and grow. They credit informal personal networks for gaining entrepreneurship and marketing skills, and have contacted people with the same vision and found mentors able to help them in establishing their company. Some of the founders attended training courses abroad as these are rare in Greece (LIEE/NTUA, 2015).

3.1 Competence analysis

In the context of the ArtS project, which aims at exploring and recording the dynamics of the Creative and Cultural Sector, we attempt the detection and precise definition of the skills required in various branches of the sector nowadays, and, on the other hand, our aim is to fix the deficit observed in substantial horizontal skills. The development and further strengthening of these skills through adequate education and training programs in these sectors is considered essential in order to stimulate creative entrepreneurship and reduce the relative unemployment.

Indicatively, skill shortages in this area may refer to:

- ✓ *Entrepreneurial skills*, such as leadership skills, business management, project management, communication skills and networking, financial management, etc.
- ✓ Skills related to the *sales and marketing* of products and services
- ✓ Skills relating to the *protection of intellectual property rights*
- ✓ Skills related to the utilization of new technologies (e.g. the lack of creative and technical skills to produce content for distribution for distribution to all potentially available technology platforms, and the ability to understand and exploit technological advances)
- ✓ Creative skills that can be related to specific sectors (e.g. creative writing skills or musical composition skills that may be necessary to the film and music industries, performing arts , etc.)
- ✓ *Soft skills* refer to a cluster of personal qualities, habits, attitudes and social graces that make someone a good employee and compatible to work with. Soft skills are highly valued because research suggests and experience shows that they can be just as important an indicator of job performance as hard skills

a. Entrepreneurial skills

Some indicative entrepreneurial skills are:

1. Initiative, creativity and innovating thinking

It is the ability to develop fresh ideas that provide solutions to all types of challenges. More specifically:

- ✓ plans works and carries out tasks without detailed instructions
- ✓ makes constructive suggestions
- ✓ sees old problems in new ways and has novel approaches to solving those problems.
- ✓ prepares for problems or opportunities in advance
- ✓ undertakes additional responsibilities
- ✓ responds to situations as they arise with minimal supervision
- ✓ creates novel solutions to problems
- ✓ evaluates new technology as potential solutions to existing problems
- ✓ finds ways to turn the ideal into reality
- ✓ connects seemingly unrelated ideas, events, and circumstances to find global solutions to individual problems

2. Cooperation/Team work

Cooperation and team working skills promote cooperation and commitment within a team to achieve goals and deliverables.

More specifically, an individual having such skills:

- ✓ works harmoniously with others to get a job done
- ✓ responds positively to instructions and procedures
- ✓ is able to work well with staff, co-workers, peers and managers
- ✓ shares critical information with everyone involved in a project
- ✓ works effectively on projects that cross functional lines
- ✓ helps to set a tone of cooperation within the work group and across groups
- ✓ coordinates own work with others
- ✓ when appropriate facilitates discussion before decision-making process is complete
- ✓ works effectively with different personalities across a variety of social and professional situations
- ✓ builds professional relationships

3. Communication

Communication skills enable an individual to be comfortable to communicate well with other people using a broad range of communication styles, and choose appropriate, effective ways to communicate to audiences in diverse situations. More specifically an individual with such a skill:

- ✓ communicates in a respectful tone and manner
- ✓ listens actively and communicate effectively with others
- ✓ writes and speaks effectively, using conventions proper to the situation
- ✓ states own opinions clearly and concisely
- ✓ demonstrates openness and honesty
- ✓ explains reasoning behind own opinions
- ✓ asks others for their opinions and feedback
- ✓ asks questions to ensure understanding
- ✓ exercises a professional approach with others using all appropriate tools of communication
- ✓ uses consideration and tact when offering opinions.

4. Problem Solving

Problem solving skills builds a logical approach to address problems or opportunities or manage the situation at hand by drawing on one's knowledge and experience base, and calling on other references and resources as necessary.

An individual having such a skill:

- ✓ anticipates problems
- ✓ sees how a problem and its solution will affect other units
- ✓ gathers information before making decisions
- ✓ weighs alternatives against objectives and arrives at reasonable decisions
- ✓ adapts well to changing priorities, deadlines and directions
- ✓ works to eliminate all processes which do not add value; is willing to take action, even under pressure, criticism or tight deadlines
- ✓ takes informed risks
- ✓ recognizes and accurately evaluates the signs of a problem
- ✓ analyzes current procedures for possible improvements
- ✓ acknowledges when one doesn't know something and takes steps to find out

6. Sense of initiative and entrepreneurship

Sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, ingenuity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives.

This means:

- ✓ to create and exploit opportunities
- ✓ to develop a network of personal contacts and support
- ✓ to induce and prepare changes rather than trying to respond when you arise
- ✓ to suggest changes in the context of teamwork
- ✓ to face challenges with vigor and to take responsibility for your decisions and actions
- ✓ to be able to make decisions, set goals and plan the steps to achieve them
- ✓ to be able to identify strengths and weaknesses in a situation or a project
- ✓ to be able to demonstrate foresight, determination, willpower, responsibility, adaptability, optimism

This skill is particularly important as it is linked to the understanding of the working framework, the assessment of opportunities and risks, the exploration and exploitation of challenges and innovation. This skill should mainly characterize those who choose to start their own business. However, in today's labor market it is important to exhibit entrepreneurial spirit, whether one wishes to create his/her own business or not, because it helps people to expand career opportunities, to pursue personal development and to meet the challenges and uncertainty in the workplace, with ingenuity, flexibility and efficiency

7. Planning & organizing

An individual who demonstrates planning and organizing skills establishes a systematic course of action for self or others to ensure accomplishment of a specific objective. More specifically, he/she

- ✓ identifies the sequence of tasks and the resources needed to achieve a goal, and prioritizes key action steps
- ✓ Anticipates the impacts and risks of decisions and actions.



Skills for the creative economy

- ✓ Seeks and uses others' input about critical actions, timelines, sequencing, scope, methodology, expected outcomes, and priorities. Sees potential challenges and opportunities, and adjusts plans based on input.
- ✓ Creates realistic schedules for projects and follows them. Evaluates progress against schedule and goal.
- ✓ Monitors and evaluates social, fiscal, and political trends that affect the plan.
- ✓ Prepares strategies to deal with problems or drastic changes.
- ✓ Evaluates proposed actions and timelines against organizational mission and values.
- ✓ Integrates the current plan with other plans as needed to achieve the overall mission.
- ✓

8. Entrepreneurial Orientation

This skill encompasses the ability to look for and seize profitable business opportunities and the willingness to take calculated risks to achieve business goals. An individual who demonstrates entrepreneurial orientation

- ✓ notices and seizes profitable business opportunities
- ✓ stays abreast of business, industry, and market information that may reveal business opportunities
- ✓ demonstrates willingness to take calculated risks to achieve business goals
- ✓ proposes innovative business deals to potential customers, suppliers, and business partners
- ✓ encourages and supports entrepreneurial behavior in others

b. Skills in the use and exploitation of new technologies or digital skills

- ✓ Use of computer and specific programs (computer / design programmes) as a work tool
- ✓ Familiarity with new technologies
- ✓ Option to participate in digital social media
- ✓ Skills for content production and its distribution to all potentially available digital platforms

c. Intellectual property protection Skills

Understanding Intellectual property law (patents, industrial design, trademark, copyrights) for protection against piracy, with a particular emphasis on addressing illegal downloading and copyright infringement.

d. Soft skills

1. Personal management

Personal management skills refer to the ability to understand oneself and be conscious of the implications of the interactions with others. More specifically, an individual exhibiting such a skill should be able to:

- ✓ act with honesty, integrity and personal ethics
- ✓ recognize personal efforts and the efforts of others
- ✓ acknowledge diverse opinions and accept differences
- ✓ manage personal health and emotional well-being
- ✓ take responsibility and demonstrate resiliency and accountability
- ✓ plan and manage personal time, finances and other resources
- ✓ assess, weigh and manage risk in the face of uncertainty
- ✓ recognize strengths and areas for improvement
- ✓ adapt to new environments and cultures

2. Reliability

A reliable individual demonstrates a high level of dependability in all aspects of the job.

More specifically he/she

- ✓ shows commitment/dedication and accountability in one's work, and follows through on all projects, goals, aspects of one's work
- ✓ completes all assigned tasks on time and with minimal supervision
- ✓ arrives at work on time every day
- ✓ fulfills all commitments made to peers, co-workers, and supervisor
- ✓ works to achieve agreement (by offering alternatives, etc.) on time frames or objectives that can be realistically met

3. Flexibility/adaptability



A flexible/adaptable individual displays openness to different and new ways of doing things and willingness to modify one's preferred way of doing things. More specifically, he/she

- ✓ remains open-minded and changes opinions on the basis of new information
- ✓ performs a wide variety of tasks and changes focus quickly as demands change
- ✓ manages transitions from task to task effectively
- ✓ adapts to varying customer needs
- ✓ is able to see the merits of perspectives other than his/her own
- ✓ demonstrates openness to new organizational structures, procedures, and technology
- ✓ switches to a different strategy when an initially selected one is unsuccessful
- ✓ demonstrates willingness to modify a strongly held position in the face of contrary evidence
- ✓ looks for ways to make changes work rather than only identifying why change will not work
- ✓ adapts to change quickly and easily
- ✓ makes suggestions for increasing the effectiveness of changes

4. Writing skills

An individual exhibiting sufficient writing skills conveys ideas and facts in writing using language the reader will best understand. More specifically, he/she

- ✓ uses correct vocabulary, spelling, grammar, and punctuation
- ✓ composes clear, direct, concise, complete messages
- ✓ chooses the most effective and meaningful form to express ideas and information
- ✓ uses bullet points, tables, or other tools to organize and present detailed or complex information
- ✓ adapts the content, tone, style, and form to suit the needs of the reader, the subject, and the purpose of the communication
- ✓ uses plain talk to explain complex or technical concepts
- ✓ organizes information so that facts or ideas build upon one another to lead the reader to a specific conclusion
- ✓ uses formal writing styles or advanced literary techniques and formats suited to the job

5. Communication in a foreign language

The ability to express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) and to interact linguistically in an appropriate and creative way in a full range of societal and cultural contexts.

3.2 Opinion of stakeholders on the skill needs

To identify the specific skills shortage in the Creative and Cultural Sector in Greece we used the method of focus groups. This method is an important qualitative data and information mining tool, through a process of direct interaction between participants of the group on this issue. The focus group organization took into account as many interested parties (stakeholders) as possible and included representatives from diverse organizations such as universities (Panteion University and the National Technical University of Athens) the Ministry of Culture, the Industrial Property Organization, a vocational education centre, the Bank of Greece and two entrepreneurs (from the music and theatre industries). The focus group provided information and data on the basis of targeted questions (see Appendix) on:

- ✓ The shortage of horizontal skills (entrepreneurial skills, digital skills, intellectual property skills and soft/non-technical skills) in the creative and cultural sector in Greece
- ✓ How can horizontal skills be acquired and which educational/training approach is deemed as more suitable for acquiring such skills
- ✓ Which factors facilitate or inhibit the growth of the cultural and creative sector in Greece

Focus group results

Regarding the basic horizontal skills in the cultural and creative sector in Greece the majority of stakeholders that participated in the focus group stressed that although creative entrepreneurs may possess some basic technological and digital skills they certainly appear not to have fundamental managerial/business and marketing skills, i.e. important skills for firms' survival and growth. However, they also mentioned that personal networks of creative and cultural entrepreneurs already active in the sector definitely help to this direction and may provide some support. Stakeholders also suggested that additional problems arise in firm management, as the majority of creative and cultural businesses in Greece are not

usually able to hire professional managers and therefore the likelihood for growth and expansion are usually scarce. In such cases, it was emphasized that the creative entrepreneur needs first of all to be able to network with other professionals. It was also clearly stated that despite the fact that creative entrepreneurs in many sectors (both in the creative and cultural industries) are interested to target international markets they lack the knowledge (e.g. designers don't know how to target global markets) and necessary resources to do so. They usually do this mainly through informal personal networks.

More specifically, regarding the theatre industry it was confirmed that specific skills are very much needed in this sector which incorporates a great range of activities ranging from Greek tragedy to musicals. In particular, it was stressed the need for targeted training programs, for example in Ancient Greek so that the actors become able to better understand the language they use when performing Greek tragedies. However, apart from the identified shortage in specific creative skills (e.g. singing, dancing skills etc) closely related to an actor's profession, it was emphasized that diverse management skills are also required for an efficient and profitable operation of a theatre business. In this vein, the relevant stakeholder suggested that theaters need people with multiple skills ranging from theater and productions management skills to economic and financing skills, human resources and personal relations skills and even building maintenance skills. On the other hand it was mentioned that traditional professions closely related to the theater business in Greece, such as shoe makers, costume makers, painters and people who create the theater sets are almost extinct. One other significant problem theaters usually face is the lack of distribution networks for theatrical shows. This practically means that the audience interested in seeing a performance will have to go to big cities such as Athens or Thessaloniki, while theaters in the periphery Greece remain unused. In this vein, entrepreneurs in the theater industry need to acquire knowledge and skills on how to sell and distribute their "product". For example, some performances could be recorded and distributed to a greater audience in Greece and abroad, although this appears to be difficult as it could only take place under specific conditions, so as to avoid online piracy and other related issues.

Regarding digital skills, the stakeholders stressed that, in general, creative and cultural entrepreneurs are not familiar with new technologies and the opportunities that these technologies may offer to their businesses. On the other hand, it was mentioned that many companies do not know how to promote and market their products and services through

the use of internet tools and the social media. Furthermore, it was also suggested that some sectors need support so that their access to new technologies is facilitated (e.g. rent 3D printers for some hours per week). Finally, stakeholders supported that digital skills related to the understanding and use of new technologies are fundamental to specific sectors such as the music industry and especially to firms offering and delivering their services through online music platforms.

As far as the intellectual property protection skills are concerned, all stakeholders suggested that there is a lack of understanding of legislation about intellectual property (patents, industrial design, trademark, copyrights) for protection against piracy and stressed the need for acquiring more knowledge in dealing with illegal downloading and copyright infringement.

Regarding non-technical or soft skills, stakeholders mentioned that their academic education was purely theoretical and did not offer substantial opportunities for developing soft skills such negotiation skills, flexibility and adaptability skills and so on.

They also stressed that entrepreneurs or freelancers in the cultural and creative sector acquire horizontal skills mainly on the job, through learning by doing or by using their informal personal networks as academic education in creative and cultural subject does not offer such skills.

Most stakeholders stressed the need for the certification of skills in the cultural and creative sector. In addition they suggested the need to link several industries with school curriculum. For example, the stakeholder representing the theatre industry highlighted the need to familiarize school pupils with theater studies and concepts. However, she also underlined that school teachers should first be educated themselves on how to teach about acting. As far as training programmes are concerned she suggested that actors need to experience teaching in person, nevertheless, she implied that some skills can also be obtained through e-learning practices.

In general, it also was also stated by all stakeholders that when mapping the needs for skills in the cultural and creative sector, one has to take into consideration the current economic climate. It was mentioned that according to Eurostat, employment in the creative industries in Greece has decreased by approximately 30% in the last few years. More specifically, due to the persisting economic crisis, many companies had to lay off staff. These unemployed professionals turned to other forms of employment, such as freelancing and working

without social security. As a result, it is difficult to map employment and professional skills in creative sectors. On the other hand, all stakeholders underlined the fact that in these sectors there is a huge difficulty in securing external funding. They suggested that governmental institutions and relevant ministries should provide more funding opportunities and support to the cultural and creative industries stressing that a detailed mapping of the sector should take place along with a mapping of employment. In addition they indicated that creative entrepreneurs should be able to contact and cooperate with financial consultants in order to submit solid proposals to banks and other institutions to leverage funding. In addition, they highlighted the need for the establishment of an institution that supports and provides guidance to creative professionals and businesses to submit integrated applications/proposals to diverse national and EU funding programs. Finally, they concluded that it is important to support these fields, as they are export oriented, and their growth is bound to facilitate the whole country's growth.

4. National education and training provisions

4.1 Best practices-new training approaches

Some best practices incorporating new training approaches and strengthening of various types of skills and competences in the cultural and creative sector in Greece were identified through desk research:

1. gi-cluster

<http://gi-cluster.gr/en/>

gi-Cluster, established early in 2012, is a creative industries cluster with a focus on Gaming and Creative Technologies & Applications, aiming at becoming a fully functional innovation and business ecosystem with substantial international market share, capable of supporting viable industry growth and competitiveness, while contributing towards elevating Greece in the global competitiveness chart.

gi-cluster is a member of the New European Media Network (NEM) a constituency which includes all major European organisations working in the networked and electronic media area, including content providers, creative industries, broadcasters, network equipment



manufacturers, network operators and service providers, academia, standardisation bodies and government institutions.

2. DIMITRA ITD

www.dimitra.gr

DIMITRA ITD participates in **ON.S.C.E.N.E. - Organizing New Skills for Creative Enterprises and Networks in Europe** (<http://www.onscene.eu/en/>). ON.S.C.E.N.E. is a two-year project aiming to promote professions related to scenography and stagecraft in four European countries: Italy, Spain, UK and Greece.

In order to meet these aims, the partnership is working together to:

- ✓ Identify the outstanding aspects of the cultural and technological evolution of scenography and stagecraft;
- ✓ Design and develop common training and learning pathways through competency-based unit models focusing on labour market needs;
- ✓ Improve on-the-job learning and work experiences enhancing creativity, lateral thinking and entrepreneurial spirit;
- ✓ Enhance an active collaboration between universities and the creative and cultural industries, involving local communities and institutions, developing pilot experiences for 'creative factories' focused on scenography and stagecraft professions.

3. University of the Aegean - Department of Cultural Technology and Communication

<http://www.ct.aegean.gr/metaptyxiakes-spoudes/msc>

The aim of the postgraduate programme offered by the Department of Cultural Technology and Communication in "Cultural Informatics and Communication" is the training of highly skilled scientists and researchers in computer applications in the field of culture in general and museology in particular.

The main objectives are:

- ✓ The promotion of scientific knowledge and research in cultural informatics;
- ✓ The development of new research directions in the field of IT;
- ✓ The provision of high-level graduate education in national sensitive areas for policy culture;

- ✓ The alignment of the provided knowledge with the recording and promotion needs of the cultural heritage;
- ✓ The contribution to development, economic and technological policy of the country, as shaped in the information society modern context;
- ✓ The development of links between the provided knowledge and the international developments in the relevant sciences, research directions and specialties.

4. "Poli Dromena-Development and Utilization of Cultural Capabilities in the Municipality of Aigaleo" project

<http://www.polidromena.gr>

The goal of the project is the proper preparation, support and labor market integration of 78 unemployed, young scientists and people insured by agricultural activities with low incomes, to either create their own Social Cooperative or personal business, or be absorbed in existing enterprises.

The professional-business activation of these target groups will become part of a sustainable development plan of the area (Municipality of Aigaleo) which focuses on the exploitation and development of the unique cultural resources of modern and ancient cultural heritage, attracting visitors and strengthening the growth of all sectors of productive activity in the region.

The project's aim is the reconnection of events already being held on a regular basis with the cultural characteristics that make up the unique cultural identity of the area and the organization of new events that meet the cultural terms (history, locality, cultural continuity) and social purposes (collectivity, participation, creativity) that they are called to serve.

The cultural event planning business will revive local cultural characteristics, enhancing the attractiveness and visiting of the region and will be able to incorporate the stands of sale of local products in cultural events of other municipalities in the wider area of Athens and Greece.

5. Vocational Training Centre KEK GSEVEE

<http://www.kekgsevee.gr/ouobjectives>

The Vocational Training Centre KEK GSEVEE was founded in 1995 on the initiative of the Hellenic Confederation of Professionals, Craftsmen & Merchants (GSEVEE), as a non-profit



educational company. It is an educational, nationwide, centre certified by the National Accreditation Centre for Continuing Vocational Training.

KEK GSEVEE is based in Athens having branches in Thessaloniki, Ioannina, Larissa, Patra and Heraklion (Crete). The main aim of KEK GSEVEE's work it is tackling the raising needs of employers and employees in Greek small and medium-sized enterprises for lifelong learning, education and vocational training.

It implements programs with the following thematic training objects:

- ✓ Exiting the crisis: Technical assistance in running the business and overcome the crisis and the negative economic cycle - The running of the business environment in the Economic Crisis
- ✓ Exit from the crisis: Green entrepreneurship - Corporate Social Responsibility (CSR) - Social Economy
- ✓ Exit from the crisis: Sectoral formations – clusters
- ✓ Organisation and small and microenterprise function - "Business to Business"
- ✓ Organisation and small and microenterprise function - Liabilities to Public Agencies / Organizations and third parties
- ✓ Investigate alternative suppliers, smart markets and trading
- ✓ Logistics management (logistics management)
- ✓ General economic education
- ✓ Organisational skills
- ✓ Ability to communicate
- ✓ Conflict management ability

6. National and Kapodistrian University of Athens

<http://elearn.elke.uoa.gr>

-e-learning training programs

The training programs have been designed exclusively for distance learning for people of all ages and include business management, marketing, business English etc.

For those who attend e-learning programs live consulting is offered in co-operation with EDU JOB (<http://www.edujob.gr>).

7. Hellenic Confederation of Commerce and Entrepreneurship (NCHC)



<http://www.esee.gr>

The NCHC operates its own nationally accredited training center (KAELE) offering vocational training services to working people, self-employed and unemployed persons who wish to work in the commercial sector.

KAELE's main goal is to cover the educational needs connected with the modernization and development of Greek commercial enterprises. In order to achieve this goal KAELE executes training programs addressed to self-employed persons, employees as well to unemployed persons who wish to work in the commerce sector.

8. Innovathens

<http://www.innovathens.gr>

INNOVATHENS is an integrated node of Innovation and Entrepreneurship, where one can meet experienced market executives and academia, as well as successful entrepreneurs that will help in a practical way to mature his/her business idea and develop or transform his/her business. In addition, one can have free access to specialist expertise, information and advice in the areas of his/her interest and explore alternative vocational rehabilitation avenues.

More specifically INNOVATHENS offers the opportunity to would be entrepreneurs to:

- ✓ participate in lectures, seminars and workshops aiming at the development of specialized techniques and other skills necessary for the creation and successful operation of an innovative company
- ✓ network with entrepreneurs, researchers, academics and creative people with common interests
- ✓ get tips from Business Associations representing innovative companies of the city
- ✓ receive information on business opportunities created in the city innovation ecosystem
- ✓ follow presentations of best practices and standards of business examples
- ✓ take part in competitions and Innovation Festivals

9. Onassis Cultural Centre

<http://www.sgt.gr/en/>



The Onassis Cultural Centre is Athens' new cultural space hosting events and actions across the whole spectrum of the arts from theatre, dance, music, cinema and the visual arts to the written word, with an emphasis on contemporary cultural expression, on supporting Greek artists, on cultivating international collaborations and on educating children and people of all ages through life-long learning.

The educational programmes and actions that complement the Centre's programme of events seek to cultivate a more informed public increasingly open to new directions in the arts. This goal will be achieved by means of continuing education which seeks to familiarize children and adults with key concepts in contemporary arts and to keep them up-to-date with the salient issues of our times.

The wide range of arts on offer at the Onassis Cultural Centre, and the synthesizing approach that this can foster, is well worth exploring in their educational programmes, too. Consequently, the visual arts, theatre, dance and music will all be approached via educational programmes arranged thematically within a single art-form, but also inter thematically to foster a dialogue between the arts. More specifically, in their education programmes for adults include a number of parallel events including pre- and after-performance talks, and workshops-seminars.

10. Athens School of Fine Arts

<http://www.asfa.gr>

The Athens School of Fine Arts has evolved from a small nucleus established in 1837 known either as the Polytechnic or the School for the Arts. In 1843 the School for the Arts was organised into three divisions under a single director:

- ✓ First: a part-time school providing supplementary education to craftsmen
- ✓ Second: a full-time school for young people intending to work as industrial craftsmen
- ✓ Third: a full-time higher educational school for teaching the fine arts

Master in Digital Arts

Since 1998 the Athens School of Fine Arts has been offering a Digital Art programme, a two-year postgraduate programme that encourages modern artistic and technological research into new digital forms of art. It leads to an M.A. Degree in Digital Arts.

Master in Fine Arts



Since 2004 the Athens School of Fine Arts has been offering a two-year Master's Programme in Fine Arts. The Master Programme aims at specialization in visual and fine arts, art theory and aesthetics. In addition to the studio work that is the backbone of the programme, the students attend seminars, lectures, and meetings with distinguished artists from Greece and abroad.

11. ST-ART APP project

<http://www.start-app.eu/>

The ST-ART APP project seek to develop skills and enhance self employability by creating connections between VET, educational institutes and the labour market involving transnational partners (public and private vocational training institutes, SMEs and Organizations active in the support for self employability) in the sector of Creative Enterprises and Cultural Assets and Heritage. The project Consortium composed by Partners from 7 EU Countries (Italy, Greece, England, Denmark, Hungary, Portugal, Croatia) aims at providing youngsters and creative entrepreneurs with tools that will allow them to start up or grow their business in the Creative and Cultural Sector. Direct beneficiaries will acquire transversal capabilities and skills such as critical thinking, creativity, sense of initiative, problem solving, risk assessment, decision-making and constructive management of feelings. The long term impact of this project is to promote the self-employability culture, increasing in the meantime the internationalisation of the providers of VET, developing a true example of interactive and effective didactic tool for indirect beneficiaries, trainers of VET.

12. The Digital Culture programme

<http://digicult.aegean.gr/>

The Departments of Product and Systems Design and Cultural Technology and Communication of the University of the Aegean, and the Schools of Fine Arts of Athens and the Aristotle University co-organize (in Syros, Mytilini, Athens and Thessaloniki) intensive workshops aiming at the upgrading of competences and knowledge of Fine and Applied Arts graduates. The main project's objective is to familiarize graduates with contemporary artistic research combined with technological research towards the wider fields of art and culture. More specifically, it aims at the implementation and consolidation of modern forms of Art as well as the development of technical skills such as creative digital design skills.



13. MSc program for graphic arts and multimedia of HELLENIC OPEN UNIVERSITY

<http://www.eap.gr/gtp.php>

The aim of the course is to provide expertise in the field of Graphic Arts - Multimedia. Specifically, the program aims to offer students the opportunity to cultivate their creativity and acquire skills in visual communication using various media (e.g. printed and/or electronic material, video etc.).

14. BIOS ROMANTSO

<http://www.romantso.gr>

Romantso, the former printing plant of the infamous “Romantso” magazine, is situated in the historical center of Athens and functions both as an incubator for start-up companies within the creative industry and as a cultural center, organizing and hosting a variety of, accessible to the wider public, events, on a daily basis.

Romantso’s incubator offers office spaces for rent and a variety of services, targeted to start-up companies within the creative sector. The building has already been developed into a vibrant meeting point for young creatives that provides both private and co-working spaces. The incubator offers secretarial and communication services, in the same time that members have access to the exhibition space, the photographic studio and the meeting room of the building, covering an important part of the functional and promotional needs of a young company.

Romantso’s cultural center organizes and hosts music performances, art exhibitions, theatre, seminars, workshops, presentations and lectures accessible to the wider public. Its purpose is to reactivate an abandoned part of the historical center of the city, where some years ago, the creative core of urban life was based.

Romantso’s people and the cultural center’s programming are both important in forming the building’s character and its everyday life. Young artists are hosted, on a frequent basis, inviting their circles and the wider public to experience vivid art events of all kinds. The café, the exhibition space and the concerts/ theatre stage, are accessible to everyone in order to present new ideas, new projects and new media to be developed.

The cultural center functions on a daily basis presenting a variety of activities for and from the city’s people and the incubator’s members, offering a wide range of events related to urban life, music, performances, visual arts, food, discussions, presentations and exhibitions.



Skills for the creative economy

Visitors and members of Romantso's incubator can participate in the cultural center's activities or just relax and socialize with friends and colleagues at the cafe. A vibrant venue of artistic creation is welcoming and involving the wider public in an open dialogue, aiming to influence the Athenian arts scene.

15. FAB LAB ATHENS

<http://fablabathens.gr>

FAB LAB ATHENS is an active node of the Digital Fabrication Laboratories network Fab Labs that are a platform for cooperation between people and organizations from different countries around the world.

FAB LAB ATHENS explores how Digital Fabrication, Information and Communication Technologies applied in different disciplines can create more efficient economic, social, productive and education models in the different local contexts of the region of Greece as well as outside Greece.

FAB LAB ATHENS objectives are:

- ✓ to test and promote new economic, social and educational models in the local context of Greece and in the global scenario of the 3rd Industrial Revolution and the crisis societies
- ✓ to organize activities, research and educational programs related with Science fields of production, designing and communication (New Materialities/Internet of Things,/Automated Construction/Real time Data/Smart Cities/The Science of DIY/Collective Innovation/Open Source Design and more)
- ✓ to create an Open Lab that is accessible to local people, professionals, researchers, students, children and to anybody interested in learning and testing the uses and applications of digital fabrication technologies.

16. Athens University of Economics and Business, e-DigiMa project

<http://digima.gr/e-digima>

DigiMa is a new educational program in digital marketing and social networks which is offered by the Vocational Training Centre of the Athens University of Economics and Business.

More specifically, e-DigiMa offers education through e-learning aiming towards the understanding of digital media and tools and their effective exploitation opportunities within the marketing objectives of a company or an organization.

The e-DigiMa is aimed at a wide range of professionals and students who want to gain knowledge in digital media, tools and strategies of marketing.

Target group of e-DigiMa:

- ✓ Graduates and students of universities and technical colleges
- ✓ Professionals who work or wish to work in a position relative to the object of the program
- ✓ Secondary Education graduates who wish to acquire relevant knowledge
- ✓ Executives or professionals working in marketing and sales, people with technological background dealing with digital technologies
- ✓ Current or future entrepreneurs working or wishing to do business online

Potential benefits

- ✓ Understanding and ability to use the digital environment and the opportunities arising from its full exploitation
- ✓ Ability to make an integrated e-marketing plan that will exploit all new means of communication and sales channels (omni-channel approach)
- ✓ Understanding of digital marketing methods and tools (content, Search Engine Marketing, Display advertising, social networks, mobile)
- ✓ Ability to combine digital marketing tools
- ✓ Ability to monitor the effectiveness of digital marketing actions

16. International Hellenic University Lifelong Learning Programs

<http://www.ihu.edu.gr/index.php/lips.html>

The International Hellenic University offers Lifelong Learning Programs with the aim to provide individuals at all stages of their lives with the opportunity to participate in stimulating learning experiences or update their educational level on prior knowledge.

IHU offers a number of high-quality, self-funded educational programs. In the period 2014 – 2015 the programs offered are:

Programs in English:

- ✓ Summer School in Ancient Technology and Crafts



- ✓ Summer School in Nationalism, Religion and Violence
- ✓ McGill Summer Studies in Greece

Programs in Greek:

- ✓ Spring School - Your Portfolio: Your Ticket to Success
- ✓ Spring School: From the idea to the business
- ✓ Winter School: Product design with digital tools: From design to photorealistic illustration
- ✓ Product Design Summer Camp 2015

17. University of Athens, Kostis Palamas project

<http://kostispalamas.uoa.gr/>

The promotion, dissemination and exploitation of Greek culture and tourism can be facilitated through the tools offered by communication studies in their broadest sense. This project's objective is to provide knowledge and skills related to communication and the Greek culture aiming at its better promotion in the media and in those services and relevant actors dealing with culture and tourism. In addition it seeks to offer a critical view on the cultural pursuits and events in relation to communication studies. The programme aims at professionals originating from the fields of journalism, culture and tourism, as well as those interested in these fields. The seminar courses intend to help professionals acquire skills through which they can combine the capacity for abstract thinking (analysis and synthesis) and the capacity of planning communication actions and skills with the use of information and communication technologies for the promotion of Greek culture and tourism.

18. British Council Greece

<http://www.britishcouncil.gr/programmes/education/skills-entrepreneurship>

The British Council in Greece organizes seminars and various events for the promotion of entrepreneurship and entrepreneurial skills. Their goal is to raise awareness and encourage the exchange of knowledge in order to contribute to changes that bring about global prosperity. This is achieved through the dialogue at a policy level, through a series of international collaborations and through the development of innovative approaches to skills development, and vocational and entrepreneurial education.

4.2 New pedagogical trends and methodologies

Business skills

Business skills, such as planning, finance and marketing, along with access to advice and support, are needed for the development of sustainable businesses and growth in the cultural and creative industries. These industries tend to focus on short term horizons and can be reactive rather than proactive, for example when looking at new business models. In addition, linked to this is a need to 'professionalise', particularly expressed by some sectors such as design and craft.

Thus, business knowledge in creative courses appears to be an important prerequisite for the development of high potential entrepreneurship in the creative and cultural sector. The development of modules, tools and material to include business skills in creative courses should be enhanced perhaps through a central recourse that could support lectures in creative and arts subjects by wrapping business skills around the teaching of each discipline.

Continuing Professional Development

Taking into consideration that creative and cultural industries are dominated by micro and small businesses, self-employed and freelancers, time and costs are barriers to training and development. The industries are graduate-rich, but the rate of change in technology and business requires that creative and business skills be continually developed for competitive advantage.

Specific actions aiming to support professional development in different sectors should be developed. An example is the UK Design Skills Alliance. This is a UK-wide (in 20 different regions) knowledge sharing network with a focus on helping design organisations grow and flourish as well as helping designers develop their skills and promote the value of design. The Design industry needs to improve links with industry and education for training and development to meet the challenges of a global industry. It must also invest more in skills and continuous professional development. The Alliance brings together industry, education and government to achieve this. For instance, the key partner for the Alliance in Scotland is The Lighthouse, Scotland's Centre for Architecture, Design and the City. Actions include; design mark in schools, teacher placements in industry, visiting design 'professors' into Further Education (FE) and Higher Education Institutes (HEIs), professional practice

framework, directory and continuing professional development for design industry practitioners.

Entry to industry_Creative Apprenticeships

People coming into the cultural and creative sector lack knowledge about the skills needed to succeed in these industries. Career pathways are unclear or do not exist and often one needs to work as a volunteer basis. This obviously excludes people who cannot support themselves. In Greece there are no employer-led e apprenticeship programmes for the creative and cultural industries. Creative apprenticeships supported by government and other non-governmental organizations and industry associations could provide high-quality, paid, work-based qualifications in technical and specialist skills areas where employers have identified current and future need. The apprenticeship would also widen entry to the workforce and address workforce diversity.

Creativity and culture in schools

As part of the wider creative and cultural agenda a concern is expressed for the development of creative skills and cultural understanding in schools. The way in which the curriculum addresses the value placed on creativity and culture in schools, the quality of teaching, curriculum design and advice are all seen as having a key impact, both on the quality of development of young people's skills in relation to their further education, and to the cultural and creative industry demands. This agenda can be taken forward by involving major actors either from the cultural heritage sector (such as museum galleries) or the creative industries and support teacher exchanges into industry.

Information, advice and guidance

There is a lack of high-quality, industry-endorsed information regarding the skills needed to enter the cultural and creative industries and develop careers, the range of occupations, and career progression. For employers and practitioners, there is a need for information on training, development, business advice and support.

A web based, industry endorsed source of information and intelligence which could provide user-focused and development information, quality-assured information on training and education, online learning and industry intelligence would probably be of some value exploiting the potential of social media for training and skills relevant to individuals and creative businesses (for a similar initiative see www.creative-choices.co.uk).

Industry intelligence and research

The availability of accurate, up-to-date and relevant skills and workforce data across the cultural and creative industries in Greece has been a problem. The information needs to be comparable across industries and acknowledge individual industry specificities. Many of these issues require long-term change and are not all met by single solutions.

The ArtS project can be considered as a first step that enables the identification of current and future skills needs, and details of education provision in the Cultural and Creative sector. However, the national and EU research agenda should sustain and develop this work and assess the impact of skills development on productivity, service improvement, and innovation in the creative and cultural industries in the long run.

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Appendix

Focus Group Questionnaire

A. Shortage in important horizontal skills

1. Which do you think are the most important entrepreneurial/managerial skills for the sector or your business?

- Leadership skills
- Management skills
- Communication skills
- Problem solving skills
- Networking skills
- Business plan creation skills
- Financial management skills
- Readiness to take risks
- Product/service promotion skills (marketing)
- Creative way of thinking
- Extroversion vision / export orientation
-

2. Skills in use and exploitation of new technologies or Digital Skills

- Use of the computer and specific computer programs (computational/design software) as a work tool
- Familiarity with new technologies
- Ability to participate in digital social media
- Skills for content production and distribution in all potentially available digital platforms

3. Intellectual Property protection skills

Understanding of legislation about intellectual property (patents, industrial design, trademark, copyrights) for protection against piracy, with strong emphasis on dealing with illegal downloading and copyright infringement

4. Non-technical skills

- Foreign language skills
- Written and oral communication
- Analytical and synthetical thinking
- Adaptability
- Flexibility
- Negotiation skills
- Teamworking skills
- Innovative mindset-imagination

5. How have you gained horizontal skills?

- Through graduate and post graduate education
- Through informal personal networks
- Through internships and on-site learning experience or learning-by-doing
- Through lifelong learning initiatives and training courses

6. What kind of educational approach is considered more important for the further development of skills?

- Lectures
- Thematic workshops
- Projects (learning by doing)
- Distance learning (e.g. through ICT tools, internet)
- Mixed (conventional and distance learning)
- Other :

B. Successful entry factors in the industry / factors that hinder business growth / development

1. What are the most important factors facilitating entry in the Creative and Cultural sector?
 - Creative talent
 - Previous professional experience/expertise
 - Knowledge of the market
 - Increased demand for the product / service my business offers
 - No special capital is needed in order to start up a business

2. What are the most important factors that inhibit the development / growth of your business or your activity?
 - Difficulties in accessing external finance
 - Gaps in the skills of the workforce
 - Lack of managerial skills
 - Too much competition in our markets
 - Lack of visibility and profile
 - The current economic climate
 - Illegal infringement of our Intellectual property (including copyright)
 - Not enough revenues to reinvest in growing the business
 - The market is not ready for our ideas
 - Government regulation

Attendees of the Focus Group

on “The mapping of skills in the cultural and creative sector in Greece”

Institution/Business	Name and Surname	Telephone number	Email
Industrial Property Organisation (IPO)	Eleni Miskou	210 6183553	emis@obi.gr
Bank of Greece	Sofia Lazaretou	210 3202992	slazaretou@bankofgreece.gr
Ministry of Culture, Education and Religion	Xryssa Tsogka	6973746434 210 3222389	xryssats@gmail.com
Union of urban, non commercial troupes	Aimilia Ypsilanti	6932750323	info@argotheater.gr

www.apotis4stis5.com	Dimitrios Zougris	6938068315 210 6205139	info@apotis4stis5.com dimitriszougris@gmail.com
Eurotraining	Krystallia Christodoulaki	6973608409 210 3306986	k.christodoulaki@gmail.com
NTUA	Fenia Markou	6979340132	feniamar@gmail.com
Panteion University	Vassilis Avdikos	6981445370	
NTUA	Yannis Caloghirou	210 7723253	y.caloghirou@ntua.gr