

ChIMERA

Innovative cultural and creative clusters in MED area

P.A. 1: Promoting Mediterranean innovation capacity to develop smart and sustainable growth

Obj. 1.1: To increase transnational activity of innovative clusters and networks of key sectors of the MED area

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INNOVATIVE CULTURAL
AND CREATIVE CLUSTERS
IN THE MEDITERRANEAN AREA

STATE OF THE ART ANALYSIS

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Technology park Ljubljana commences State of the Art analysis by quickly presenting the whole Slovenian region and its geographical scope as well as the main statistical data. After this brief introduction we are focusing our State of the Art analysis on the Central Slovenian region (NUTS3 level code SI041 due to the fact that the Central Slovenian region is the most economically concentrated, with the largest share of SMEs and other economic activity. However where appropriate we are underlining some data that is nationally relevant, and even identifying stakeholders and examples from other Slovenian NUTS3 regions.

1. REGION PRESENTATION

Slovenia is a Central European country, with population of 2.065.879 inhabitants. Slovenia is divided into two cohesion regions (Western and Eastern cohesion region) and 12 statistical regions.



Source: https://simple.wikipedia.org/wiki/Statistical_regions_of_Slovenia

Comparison of Central Slovenian region with the overall Slovenia is seen from the table below.

data	Slovenia	Central Slovenia
Surface	20.273 km ²	2.334
Population	2.065.879	535.375
Population density	101,8	229,40
Average age	42,9	41,3
% of active population with a professional or higher degree	32,50	40,27

Source: Statistical office RS (SURS)



1.1 Territorial framework

Central Slovenian region is one of the 12 Slovene regions. It represents 11,5% of the country's surface, but it holds 25,9% of all population as it is the home of nation's capital Ljubljana. The region is geographically located in the pre-Alpine world, and is considered an urban area especially due to Ljubljana

being located in it. Central Slovenia is composed of 26 municipalities. The region has a favourable geographic location being in the centre of Slovenia, and is very well connected by traffic paths.

Compared to Ljubljana some other municipalities of the region have a much different territorial, demographic and economic circumstances. The reason for this is the quite rural structure of the territory and gravitation of the population towards the capital.

1.2 Demographic data

The population of the region is increasing. In considering the demographic circumstances it is important to consider also the daily migrations into the region and within the region. Central Slovenian region is also the strongest economic region in Slovenia affecting also the age of mother at birth - this number is the highest in Slovenia (30,1 years). One third of the regions population aged between 25-64 has a professional or a higher degree, which is the highest percentage in Slovenia. As mentioned above the unemployment rate is the lowest in this region, and the average salary is the highest.

The largest Slovenian University is located in Ljubljana. In 2015 it had over 40 thousand students, and approximately 9700 graduates, among them 360 PhD graduates.

1.3 Economic framework

As already said this region is economically the strongest region in Slovenia, as shown by the table below.

Data	Slovenia	Central Slovenia
No. of companies	191.863	63.350 (33%)
Revenue by all companies	95.298.760.000 EUR	43.414.618.000 (45,5%)
Average no. of employees per company	4,1	5
No. of fast growth companies	628	204 (32,5%)
GDP (mio EUR, 2015)	38.570	14.145 (36,7%)
GDP per capita - fluent	18.693	26.418
Unemployment rate	8,1%	7,5%
Average gross salary	1653,67 EUR	1804,28 EUR

Source: Statistical office RS (SURS)

In the gross value added Central Slovenia region is most represented in the Information and communication fields, where it contributes 71,2% of value added (data for 2015), second is the field of financial and insurance activities, followed by the field of expert, technical and other science activities. Region

is the least represented (contribution to gross value added) in the fields of agriculture, forestry and fisheries – contributing only 12,2% of gross value added. Employment is the highest in the fields of: manufacturing, mining and industrial sectors; trade, hospitality and traffic industries, science, expert and other business sectors; administration and defence, education and health sectors. The ICT sector, which contributes the most to gross value added, is on the 5th place by number of employees (out of 10 considered sectors)^[1].

Central Slovenian region accounts for cca 50% of all investments into R&D in Slovenia, amounting to 430 mio EUR.

Cultural and creative sector (CCI), according to data from the publications Creative Growth - Measuring cultural and creative markets and the EU (2014), is one of the most dynamic and fast-growing sectors of the global economy. In the European Union, this sector generated revenue of € 535.9 billion (in Slovenia € 1,771 million in 2003), and up to 4.2% of GDP-a (in Slovenia 2.2%) and employs more than 7 million people (in 2014 Slovenia 11,645 of all employees).

2. LEGAL FRAMEWORK

2.1 Description of the legal framework on CCI

Slovenia only has one level of legislation as there is no formal institutions or authorities on the regional level- municipal level has to apply the same laws and regulations across the country. The most important legislative and strategic acts to be considered when developing the CCI sector are:

- Draft **Strategy of design sector development** is being currently prepared and should be fully adopted in 2017 paving the path for adoption of other acts and sub-acts in the field of creative and design industries¹.
- **Law on audio-video media services** is to be used for all audio video media services including TV programs, other linear AV media services and AV media services on demand and was lastly amended in 2015².
- **Law on media** is defining rules and rights of all natural and legal persons and strategic interests of the state in the field of media, encompassing magazines, newspapers, radio and TV programmes, electronic publications, teletext and other forms of daily or periodic publication of content if voice, text, sound or picture is transmitted in a way available to the public. The law was last amended in 2016³.

^[1] Source: Statistics office RS (SURS).

¹

http://www.mk.gov.si/fileadmin/mk.gov.si/pageuploads/Ministrstvo/Zakonodaja/Predpisi_v_pripravi/2017/OSNUTEK_OBL_koncna.pdf

² <http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO6225>

³ <http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO1608>

- **Draft Architectural policy of Slovenia – Architecture for people⁴** is developed in order to implement European cultural policies in the field of Architecture as well as to provide a framework for a long-term sustainable discussion on national architectural policies. The main objectives of the policy is to develop a quality architecture, smart development, sustainable growth and inclusive architecture as the core pillars of the Architectural development of Slovenia. The policy is going through a public discussion process at this time and is expected to be adopted in the following months.
- **Media development strategy of Slovenia until 2024** defines the main objectives of the Strategy in line with the National programme for culture. Based on that it is defining objectives regarding new media definitions especially taking into consideration the content and role of media. Special focus is paid to the public media services.
- **National programme for culture** defines individual cultural fields: books and publishing, movies and audio-visual activities, performing arts, music arts, visual arts, intermedia arts, voluntary cultural activities, media, architecture, cultural heritage, library activities, archiving activities; as well as horizontal fields incorporated in all vertical parts which are: Slovene language, cultural-arts education, human rights and preservation of cultural diversity, cultural industries, design and creative industries, digitization, international cooperation.

2.2 Regional innovation strategies for smart specialization (RIS3)

Slovenian smart specialization strategy is recognizing Creative and cultural industries as an important pillar and development potential. However, CCI's are not defined as a specific vertical specialization pillar. In Slovenian S3 creative industries are recognized as being underutilized and represent an opportunity as these industries are fast developing. Thus S4 foresees creative industries as an opportunity to physically support for example Creative hubs and projects focusing on CCI. CCI's are also recognized as a potential in development and utilizing the human resources potential especially regarding young people and education process.

Furthermore, creative and cultural industries are important part of design thinking and their linkages to other economic sectors are seen as a main driver of innovation. The importance of CCI's is seen in implementation plans of Slovenian cohesion policies where several important national projects and initiatives are being prepared – and are close to implementation. Out of those

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[Http://www.mk.gov.si/fileadmin/mk.gov.si/pageuploads/Ministrstvo/Fotogalerija/2016/avgust/arhitektura_zaljudi_osnutek_arhitekturne_politike.pdf](http://www.mk.gov.si/fileadmin/mk.gov.si/pageuploads/Ministrstvo/Fotogalerija/2016/avgust/arhitektura_zaljudi_osnutek_arhitekturne_politike.pdf)

it is important to mention Centre for creativity and design, Centre for arts, Centre for promotion of science and achievements and others.

2.3 Other strategic documents

There is no other applicable documents identified in the CCI sector.

3. STRATEGIC CHALLENGES FOR CCI SECTOR

3.1 Regional initiatives

This region is quite polycentric regarding the cultural and creative industries. There are several national institutions placed in Ljubljana and then several local organizations and festivals, but most of all have strong public financing – either from the government or from the municipalities.

Ljubljana was pronounced World Book Capital in 2010, European Green Capital in 2016, European Month of Culture was held in Ljubljana in 1997 (May-July) and there are also discussions going on for the European Capital of Culture for the year 2025. Slovenes celebrate “Culture day” as a national holiday and every year Ljubljana is the stage for the main cultural events – more than 10.000 cultural events are held in Ljubljana every year and also 10 international festivals⁵. There are about 50 thousand university students that propel the alternative art & entertainment scene. The most notable location for this population is the ACC Metelkova Mesto, a cultural center that was created from the former military barracks.

There are also 22 museums, 53 galleries and 10 theatres located in Ljubljana. 19 out of the 27 national cultural institutions in Slovenia are located in the Central Slovenian Region. Among them are the Slovene National Theatre (SNG) Ljubljana - Opera and Ballet, Slovene National Theatre (SNG) Ljubljana - Drama, the Slovene Philharmonics; the Cankarjev dom Culture and Congress Centre; the National and University Library (NUK); National Museum of Slovenia, Slovene Ethnographic Museum, National Museum of Contemporary History, Museum of Natural History of Slovenia, National Theatre Museum of Slovenia, National Gallery of Slovenia, Museum of Modern Art Ljubljana, Museum of Architecture and Design, the Institute for the Protection of Cultural Heritage of Slovenia (ZVKDS); Slovenian Cinematheque; Viba Film Studio, Technical Museum of Slovenia and Museum of Christianity in Slovenia; and the Archives of the Republic of Slovenia (ARS). To these we should also add Ljubljana City Gallery and the International Centre of Graphic Arts (MGLC) in the field of visual arts, Theatre for Children and Youth, Puppets Theatre Ljubljana, Theatre for Youth,

⁵ Among them are for example *The Ljubljana Festival*, the major cultural series of events, held in various parts of the city, which includes theatre, music, and dance performances by national and international artists; *The Jazz Festival Ljubljana* that has 50 years of tradition and is among the oldest in Europe of its kind; *Ana Desetnica International Festival*, showing street-theater productions; *Ex Ponto* international modern theatre festival; *Gibanica festival* of contemporary dance; *Exodos* festival of the independent productions; *City of Women Festival*, showing contemporary art; *Mladi Levi Festival* of young contemporary performance artists, etc.

Ljubljana City Theatre; Kino Šiška Center of Urban cultures and numerous NGOs involved in all these fields.

There is also the Slovenian Film Fund that propels the movie production and distribution as well as awards grants for special achievements - in average there are about seven feature movies made each year in Slovenia. There are more than 30 production houses in Slovenia, the main ones being Radio-Television Slovenia (RTV Slovenia) and the Academy of Theatre, Radio, Film and Television (AGRFT), VPK Studio, E-motion Film/Vertigo, Studio Maj, Arsmedia, A-Atalanta, Gustav Film, ŠKUC (Students' Centre for Culture). In addition there are 8 TV stations (the first five are national): SLO1, SLO2, POP TV, Kanal A, Planet TV and all of them are stationed in Ljubljana.

Lastly we should also mention the biggest book-publisher in the region and whole Slovenia, the Mladinska Knjiga that also has the strongest position as the book trading firm. In the field of written word there are several newspapers and other periodicals, but they have a falling trend like all over the world.

4. THE CREATIVE SYSTEM IN THE REGION

In Slovenia the large urban areas and capital city region dominate the field of CCI. Out of around 12.000 CCI companies in Slovenia, almost 5.000 are from the Ljubljana urban region, based on an analysis from 2012 [1]. This represents 42% of all CCI companies. Consequently, almost 60% of all cultural events, infrastructure and people working in CCI are from this region

4.1 Private sector

Out of 222.692 employed persons in Central Slovenia region in 2011 5,20%⁶ of them was employed in ICT sector; 8,53% in expert, science and technical sector; 1,82% in cultural, entertainment and recreational sector and 6,00% in other sectors related to CCI. Additionally there is around 2500 people self-employed in culture⁷. Some examples:

Gigodesign

Company Gigodesign (Garbage-In-Garbage-Out) is one of the forerunners in the field of product-design, experience-design and branding. They have co-created several products and brands that have penetrated the global markets (eg the EKWB's designer cooling systems for gaming) and gained multiple Reddot design awards (Eg. Beatnik-sound-chair by Donar).

Outfit 7 ltd.

Outfit7 Limited is one of the fastest-growing multinational family entertainment companies, best known for its global phenomenon Talking Tom, which grew from an instant app success into a fully-fledged media franchise in the years since its launch. Their animated characters have also been brought to a TV screen in a form of cartoons. Their applications and cartoons have won a number of awards⁸) and have been downloaded almost 6 billion times on mobile devices.

ProPlus

PRO PLUS is the leading private media company in Slovenia, offering two TV channels with the greatest audience shares in Slovenia - POP TV and Kanal A. Additionally, they are offering a number of topical TV channels and video-on-

⁶ The data is only available on the aggregated level for economic activities and not on subsector level and only for 2011.

⁷ A specific status granted by the government to assure basic livelihood to cultural workers.

⁸ Best iPad Game: Kids, Education and Family' award at the 2015 Tabby Awards, Best Animated Series' at the 2016 Cablefax Program Awards, etc..

demand internet based service. They combine their own TV production with acquired content to be broadcast or streamed to viewers⁹.

Video produkcija Kregar (VPK)

VPK company is a long standing company, established in 1991, which is involved in multimedia production in the broadest sense. Their work which includes production of TV shows, concerts, sports events and matches, commercials, documentaries and other TV or audio-visual related content. This requires inclusion of technical and creative staff with good technological background.

Art Rebel 9

Art Rebel 9 company is active in the field of audio-visual production, 2D and 3D animation, virtual and augmented reality and software development-their portfolio includes a number of successful projects including production of video spots, product and service TV commercials, AR and VR presentations for sports and commercial purposes, games development etc. Their specialty is usage of advanced technological solution for content production.

Percipio

Percipio<BigData> is a University of Maribor spin-off company founded in 2013. The team of young and experienced researchers, developers and entrepreneurs is based in Vienna and Maribor. Their work is focused on the domain of big data analysis and content visualization¹⁰.

Institute ZVVIKS

The institute ZVVIKS is a production house specializing in the realization of original animated films and cultural education projects in the field of animated film. Since their establishment they have successfully completed a number of animated and audiovisual projects that were screened at various locations throughout the globe.

A number of other internationally renowned Slovene companies/groups are strong in CCI¹¹.

⁹ In the past they were awarded a number of awards and prizes for their TV production, awards for a trusted brand and a number of awards for their show hosts and presenters (Trusted brand award 2011, 2012, 2013, Media award popularity Victor(s) 2010, 2011, 2012), etc.

¹⁰ Their products are solutions, which allow the users to move through huge keyword graphs to observe neighboring links and nodes, and at the same time follow the search results using of state-of-the art technologies. They are officially listed as WKNÖ (Austrian Chamber of Commerce) technology & innovation partner.

¹¹ Examples include: Akrapovič d.d. – state-of-the art exhaust pipes for racing and home-owned motorcycle – they are world masters of sound-design; Interblock d.d. – designing and manufacturing

4.2 Public sector

Radio Television of Slovenija (RTV Slovenija)

RTV Slovenija is the only public nonprofit broadcasting organization in Slovenia to operate both radio and television stations. It is the oldest broadcasting company in Slovenia, whose radio production started before WW2. The law also requires it to air radio and television services for the country's two indigenous linguistic minorities. RTV Slovenija broadcasts 3 national and 2 regional TV channels and 3 national, 4 regional and 1 international radio stations. Their TV and radio production is available also online and on-demand through several interactive applications on mobile devices and smart TV sets.

Viba film

The Viba Film studio in Ljubljana is a state institution which operates as the national technical film foundation. It co-operates in the majority of Slovene films in the National Film Programme, and is also involved in co-production and commercial projects. Their design enables the simultaneous filming of two projects. Viba rents out technical equipment for film shooting, lighting, the dollies and sound equipment, transport vehicles, and power supply equipment. Mobile sound equipment and an up-to-date post-production studio provide everything to progress through all stages of a film production. Their capacities also include a small cinema for screen testing.

Slovenian film center

Slovenian Film Centre, a public agency of the Republic of Slovenia, is as a successor of the Slovenian Film Fund – a public fund. The goal of the Slovenian Film Centre is to encourage creativity in the film and audiovisual field in the Republic of Slovenia by creating suitable conditions for film, audiovisual and cinematographic activities through implementation of the national programs.

4.3 Professionals involved

Primož Hočevar, architect

Primož Hočevar's architectural solutions rationally respond to the characteristics of the area and the needs of the customer and end users, while ensuring the quality of ambient objects. Some of his references include Marketplace Maribor, High school for economy Murska Sobota, Industrial manufacturing hall, shopping Centre in Ljubljana, residential buildings and

betting machines for Las Vegas, DJ Umek – one of the most renowned DJs in the world, Perpetum Jazzile – a capela music choir, Carmina Slovenia – female choir, Ansambel bratov Avsenik – a polka music group, The Two Chellos (music duet, half Slovene, half Croatian), Zootfly – video animation and ICT company (now segmented and sold).

many individual houses all over Slovenia. For his work he received a number of awards, including the most prestigious architectural award in Slovenia (Plečnik award).

Raay A. Vovk, music producer, artist

R.A. Vovk has been involved in the domain of show business for over 10 years, He has been active as a manager, A&R, executive producer, talent scout & developer, producer, songwriter, artist, singer, talent show judge, PR, record label owner, teacher, music juror, etc.

Rado Likon, director of photography, cameraman

Rado Likon has started his career as a cameraman and has since participated in numerous projects from the field of film making and audio-visual production. In his role of a director of photography he was involved in around 30 feature films, has produced two of them and has also been involved in a number of documentaries, educational movies, special underwater videos, commercials and other audio-visual production.

Ven Jemeršič, director, director of photography

Ven Jemeršič has graduated from Film Academy ADU in Zagreb in 1995, and was selected for the Master Class with Oscar awarded Vilmos Zsigmond and Billy Williams. As a cameraman, he made eight feature films and several short films. As a director and cinematographer he was working on commercials, television shows, show and music videos. He has made more than 500 commercials for major companies in Slovenia and Croatia. After more than 170 music videos he is still considered as one of the best Slovenian directors. In 2001, together with Karpo Godina he co-founded the Association of Slovenian Film cameramen - ZFS.

Janez Štucin, cinematographer

Janez Štucin is a freelancer whose work domain covers photography, production of documentaries, short movies and videos and TV series in which he participated as still photograšher, director of photopgraphy, camera assistant and camera operator¹².

Oskar Kogoj

¹² For three of his works (Echoes of time, For the end of times and Ski everest 2000) he was awarded 11 awards such as Special Jury Award at WORLDFEST, Houston USA, The Castell Award at BARCELONA INTERNATIONAL FILM FESTIVAL, Best experimental feature at NEW YORK INTERNATIONAL INDEPENDENT FILM & VIDEO FESTIVAL 2010, Award for Best adventure film at Trento international mountain film festival, etc.

Oskar Kogoj is a world renowned industrial designer and an artist. His work are stored in over 100 museums world-wide and his designs can be found in glass industries, wood industries, stone products etc.

Matej Peljhan, psychologist and photographer

Matej Peljhan is the author of the photo-story, aptly named Little Princ that gained international reputation – it is a photo story about a true child with muscular dystrophy, stuck motionlessly in a wheel-chair but who's dreams come true through a photographic lens – suddenly he can fly, play basketball, dive... however in the last picture the little Luka wanted to be shown returning to his paralysis and wheelchair, coming back to who he is in real life¹³.

4.4 The cultural and creative synergy

For sure the cultural and creative sector in Central Slovenia cooperates. There is a strong collaboration in festivals as well as in various projects especially through framework institutions established by the state as the top down approach as well as the bottom up initiatives. On the other hand looking at the whole Slovenia even though cooperation exists, there can be some fragmentation and conflicts arising from the congested sector and various stakeholder interests.

¹³ And several more individuals , such as Ana Roš, a world-renowned mater chef and food artist that was awarded as the 'world's best female chef'; Irena Grafenaur, a world renowned academic and soloist on flute, etc.

5. EDUCATION AND RESEARCH

In Slovenia a number of institutions are offering educational curricula related to CCI sectors, especially audio-video production, film and software development. The first level of such education are high schools, providing a basis for later education in the mentioned domains at one of the Universities or vocational schools. There are at least five (5) high schools and five (4) Faculties/colleges with related study programmes in Slovenia.

It should be noted that the below mentioned Faculties/Universities cover similar domains, but from different perspectives. While Faculty of electrical engineering and Faculty of computer and information science at University of Ljubljana offer study programmes more oriented towards technical aspects of audio-video domain and software engineering, the Academy of Theatre, Radio, Film and Television and Institute and academy of multimedia on the other hand offer more content production oriented study programmes.

5.1 Educational curricula offered



Please list the curricula of universities and/or third level educational institutions and/or vocational schools in your region (designation of the course, and a brief description of the course's objectives and professional outlets).

In Slovenia there are a number of Faculties or vocational schools offering a number of study programmes from the field of audio-video production, video and film as well as software development. Short descriptions are included in the following section.

1st Cycle Interdisciplinary University Study Programme in Multimedia

Faculty of electrical engineering and Faculty of computer and information science, University of Ljubljana

The basic objectives of this study programme are to provide good knowledge from the broad field of multimedia, which includes technical courses such as software development, telecommunication systems and protocols including internet systems and architectures, basics of digital TV and radio, mathematical basics and digital signal processing. On the other hand, students obtain knowledge from production oriented domains such as career communication, ICT and society, computer graphics and game technology, studio and multimedia production technology, editing and post-processing and electronic commerce.

Consequently, the graduates are trained for jobs in the broadcasting sector, content production companies, telecom operators, marketing agencies and software companies.

2nd Cycle Interdisciplinary University Study Programme in Multimedia

Faculty of electrical engineering and Faculty of computer and information science, University of Ljubljana

The basic objectives of this study programme are to improve knowledge obtained in the 1st cycle Interdisciplinary Academic Study Programme in Multimedia and through a number of elective modules provide specialization in different aspects of Multimedia. The main modules are related to designing of multimedia services with emphasis on software development of interactive applications, design of user experience and user interfaces, while other modules cover processing, analysis and system aspects of multimedia systems.

The graduates will be able to find jobs with software development companies, marketing agencies and telecom operators.

1st and 2nd cycle University Study Programme in Computer and information science

Faculty of computer and information science, University of Ljubljana

The university study programme in Computer and Information Science offers a selection of courses that cover knowledge of programming, algorithms, mobile app development, information systems, web technologies, integrated systems, computer networks and administration. It provides students with skills and the wide range of knowledge necessary and important for working in computer science and related domains and projects.

Vocational study programme of Multimedia production

Institute and academy of multimedia(IAM)

IAM's mission is to educate students for the rapid development of the media production in Slovenia and abroad through development and managing of media education programmes. The study programme trains students for content related, organizational, technical and production based aspects of audio-visual production. Through it the students should obtain competences

for successful implementation of multimedia projects including the technical, organizational and economic aspects.

1st cycle study programme Film and television

Academy of Theatre, Radio, Film and Television, University of Ljubljana

The study programme covers three modules: Film and Television Directing, Cinematography for Film and Television, and Film and Television Editing. The graduates learn how to face the challenges of their own creativity and aim to achieve professional high technology standards. In accordance with the selected programme, they acquire competences to act independently and creatively as independent professionals in documentary film, feature film, television drama, television programmes of different formats and other forms of audio-visual programmes. The study programme is organised to enable them to hands-on experience with the professional AV community.

2nd cycle study programme Film and television arts

Academy of Theatre, Radio, Film and Television, University of Ljubljana

The study programme offers six modules: Film Directing, Television Directing, Editing, Cinematography, Screenplay Writing and Production. The aim of the programme is to enable its M.A. graduates to be competent in artistic and professional tasks of the most demanding audio-visual projects. The study programme is based on artistic, creative and practical design, pre-production and final implementation of art projects, (M.A. and student productions). It is thus a continuation of the 1st cycle programme of Film and Television, accentuating independent creative output.

5.2 Research centres, laboratories and research institutes¹⁴

The research and educational institutions are involved in a number of research projects. The main research domains are:

- In the field of software development: usage of artificial intelligence in games, user experience in interactive applications on different devices, accessibility aspects of content consumption on different devices, etc.
- In the field of theatre, film, television and music: fundamental research, development of new methodologies and conceptual tools for the interpretation of (trans) arts phenomena, framing shots in film photography, etc.
- Slovenia is very creative in the field of architecture and is using numerous EU initiatives to further develop the sector and connect the fragmented players.

Some research and projects are resulting in patents and copyrighted solutions, however, at the time of writing this report the exact number of patents and copyrights was unknown.

6. MAIN CULTURAL AND CREATIVE INDUSTRIES

Central Slovenian Region has a high concentration of CCI industries (about 5.000 companies) with some shining examples that are world-leaders in their fields. Such is the field of Animation and Gaming with companies such as Outfit 7 and Zootfly, product-design companies such as Gigodesign, software companies - all the way to the private manufacturing companies such as Akrapovič, which is the world leader in sound-design for motorcycles' exhaust pipes.

However, these cases do not reflect the average state of Slovene CCI. Mainly the CCI is underdeveloped in its market competences and its expertise, as well as not sufficiently supported by the industry and the government. There is a lack of networking and transfer of knowledge between those organizations that know how to penetrate the world markets and the vast majority of the other CCI organizations. There are strong talents that are unrealized, great designer products that are not marketed, good ideas unimplemented.

Our analysis has shown there is a need to • establish the transfer of a wide variety of know-how, • expose good practices and best cases • establish a

¹⁴ Number of patents is unfortunately not available in Slovenia for CCI.

developing support environment that will help with company-growth, marketing of products/services and with internationalization, • connect the dispersed institution, NGOs, individuals and companies, • provide funding for the second development phase, not only in private put also public sector (presentations, promotion...), • channel government support to those with highest market potential and focus promotions in foreign markets... .. the CCI cluster that will be created as a result of Chimera project can be made to suit these demands and help CCI gain its ground among other industries. This way CCI can become stronger in their potential and output, bigger employer (currently average 5 employees/company) and exporters (currently mainly domestic-oriented).

6.1 Identification of 3 main sectors or subsectors

The three main sectors in Slovenia seem to be audio-visual production, TV production and software development. The number of companies and projects in this domain seems to be the fastest growing, which also correlates with the amount of financing and revenue of the companies in these domains. This should not be too surprising as with the advent of the internet and smart phone devices, the field of software development has overgrown all others all around the globe, with Slovenia being no exception. The field of audio-visual production and TV production is growing steadily, also due to the number of end user devices, able to display audio-visual content any time and at any place.

6.2 Identification of 3 regional best practices

Name:	Art rebel 9
Profile:	Art Rebel 9 is a company with 26 years of experience in the field of design and implementation of multimedia projects. They are dealing with animated computer graphics in 2D and 3D for computer games, applications, multimedia and web applications, video production and postproduction, film production, architectural and industrial visualizations.
Description:	<p>The company is specialized for design and implementation of:</p> <ul style="list-style-type: none"> • 2D and 3D computer animated graphics • Visual special effects • Digitalization and processing of film tape • State of the art multimedia and new media content <ul style="list-style-type: none"> ○ Augmented reality ○ Virtual reality

	<ul style="list-style-type: none"> ○ Mixed reality ○ Hologram projections ○ 3D projection mapping ○ Stereoscopic (3D) movies • Physical simulators (in combination with the above mentioned media) • Multimedia software <p>The vertical application domains are film, video, TV, web and kiosk advertising, architectural and industrial design, museums, fantasy parks and publishing.</p>
Context impact:	Art Rebel 9 team are the pioneers of creative usage of advanced technology, offering complete solutions for regional and global customers. They are a reliable partner for all who are aiming at shaping their visions into exceptional experiences through the introduction of innovative approaches in international scope.
Links to resources:	http://artrebel9.com/ http://www.probi.me/ www.teleking.si https://www.facebook.com/ArtRebel9/ https://twitter.com/artrebel9?lang=en https://www.linkedin.com/company/art-rebel-9
Key words:	2D and 3D computer animation, special effects, multimedia, new media, virtual reality, augmented reality, holograms, stereoscopy, postproduction, applications, visualizations, simulations.

Name:	Percipio Ltd.
Profile:	percipio<BigData> is a startup company developing solutions in the field of Big Data analytics, natural language processing and data visualization.
Description:	<p>Percipio<BigData> is an idea enabling data-science company that helps clients find, organize & connect keywords to enable and support insight and discovery. New ideas are sought by smart guidance through connected keyword-space that is built from huge document corpus.</p> <p>percipio<BigData> has developed an application that allows the user to move through huge keyword graph to observe neighboring links and nodes, and at the same time follows the search results. A combination of state-of-the art technologies such as: Cassandra, Spark, Storm and ElasticSearch are used at the company to build its products.</p>
Context impact:	The important problems of Big Data visualization are being solved at the company with the goal to enable individual users to gain overview,

	insight and understanding over huge datasets.
Links to resources:	www.percipio-big-data.com
Key words:	Big Data, Data visualization, NLP, Information retrieval, Knowledge representation

Name:	Artists' residences for accommodation and work of Slovene artists in foreign cities.
Profile:	<p>Ministry of Culture is responsible for the fields:</p> <ul style="list-style-type: none"> - art, - culture, - cultural heritage - film, - media, - Slovene language, - freedom of religion - cultural diversity and human rights.
Description:	<p>Since 2012 the Ministry of Culture of 2012 provides Slovene artists with temporary usage of apartments in foreign capitals.</p> <p>Artists' residencies are designed for artists working in the fields of performing and fine arts, music and intermedia art, architecture and design, film and audiovisual media and books.</p> <p>Artists' residencies are available in Berlin, London, New York and Vienna, and are available for artists for up to two months.</p> <p>A mirror program is also enabled for foreign artists who want to work in Slovenia. They can use two apartments in Ljubljana, again for up to two months.</p>
Context impact:	<ul style="list-style-type: none"> - Increasing the visibility of the Slovenian artistic creativity and production abroad. - Promoting job opportunities in the field of art and increasing the chances of obtaining a new audience,

	<ul style="list-style-type: none"> - Enhancing creativity through mobility and intercultural exchange of ideas, knowledge and practices, - Promoting international integration, networking and participation in the arts, - Sharing knowledge, techniques and examples of good practice
Links to resources:	http://www.mizs.gov.si https://www.facebook.com/ministrstvozakulturo/
Key words:	Ministry of Culture, Artists' residences, New York, Berlin, Vienna, London, Ljubljana, art, culture, creativity, networking, mobility

7. BIBLIOGRAPHY



List all bibliography consulted. The bibliographic information should follow the APA format (American Psychological Association)¹⁵.

This chapter is mandatory and has no limit of pages.

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¹⁵ For the consultation of APA format rules, we suggest the on-line document: <http://www.iirp.edu/pdf/IIRP-APA-Guidelines.pdf>

8. ANNEXES



Annexes deemed relevant for a better understanding of what described in the above chapters.

You can attach for example the full texts of the laws described in chapters 2 and 3, or scientific articles illustrating in more detail what is described.

This material can be useful also for the educational activities.

This chapter has no limit of pages.

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