

## Creative Regions:

Regional Analysis on Future Trends for Digital Creative Industries in Regione Piemonte / Italy

No.3 of 4 reports Baden-Wuerttemberg – Rhône-Alpes – Regione Piemonte – West Midlands

Report prepared by CSP - Innovazione nelle ICT, Politecnico di Torino, Regione Piemonte





Study prepared for EU-Project CReATE



















The creative industries are a key sector in the Europe of tomorrow. They are developing and evolving rapidly. A crucial driving force for this development is ICT technologies. Using innovative IT solutions in growing areas of the creative sector – such as advertising, digital media, games and interactive design – opens up manifold competitive advantages for research, development and business.

Since March 2008, the CReATE project consortium has been developing strategies to improve cooperation at both regional and European levels to enhance the innovative capabilities of small- and medium-sized companies from the creative sector. The CReATE consortium is led by MFG Baden-Wuerttemberg and comprises besides the Steinbeis-Europa-Zentrum (SEZ) from Stuttgart European partners from Piemonte (CSP, PTO, Regione Piemonte), Rhône-Alpes (Imaginove) and West Midlands (AWM).

#### Regional Analysis and Definition of Regional Research Priorities Interim report on regional analysis Regione Piemonte

Deliverable 2.1

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This report can be downloaded for free from the CREATE project website www.lets-create.eu.

**CREATE** – Creating a Joint Research Agenda for Promoting ICT-Innovations in Creative Industries across Europe EU-Project, FP7- Regions-2007-1

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#### 201485

#### **CReATE**

## Creating a Joint Research Agenda for Promoting IT-innovation in Creative Industries across Europe

Support Action

Analysis, mentoring and integration of research actors

Work Package 2: Regional Analysis and Definition of Regional Research Priorities

## Deliverable 2.1: Interim report on regional analysis about Piemonte

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CSP, Regione Piemonte, Politecnico di Torino

Proje	Project co-funded by the European Commission within the Seventh Framework Programme				
	Dissemination Level				
PU	Public	X			
PP	Restricted to other programme participants (including the Commission Services)				
RE	Restricted to a group specified by the consortium (including the Commission Services)				
CO	Confidential, only for members of the consortium (including the Commission Services)				

## **Preface**

This interim report on regional analysis summarizes the regional results of the activities outlined in the Template for Regional Analysis (Deliverable 1.3). The regional results 'animate' the CReATE model for each CReATE region and thus build the basis for the creation of the interregional / inter-cluster Joint Research Agenda. In particular, the present document refers to the Piemonte regional analysis.

### The CReATE model:

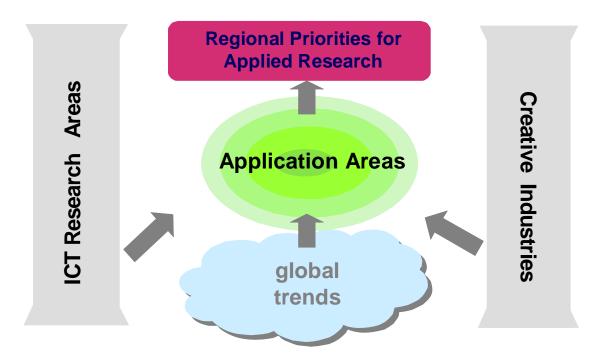


Figure 1. The CREATE model

The following two Chapters outline the results, which are relevant to 'animate' the CReATE model step by step.

Chapter 1 describes the regional knowledge base on ICT for Creative Industries and specifically marks the two pillars of the CReATE model.

Chapter 2 comprises the Regional Research Priority Areas, which are based on the two pillars specific to each region, deduced from global trends and manifested in tangible and promising application areas.

## 1. Regional Knowledge Base on ICT for Creative Industries

This report was made using the desk research method, analyzing and gathering already existing information: research work, printed works and project that, on a different scale, are trying to study the complex word of creative industries, that could be compared to a Rubik's cube. The report is an attempt to map the complex reality of creative industries in Piedmont and to single out most relevant issues.

#### 1.1 Key cluster stakeholders relevant for the CReATE activities

In Piedmont, activities linked to creative industry and to ICT in creative industry are many, complex, diversified. This allows talking about a very rich system, a rich soil for incoming sector development and for research themes.

The proposed list of potential stakeholder is not intended as a complete one, but as a good starting point to summarize, in a glance, the Creative Sector in Piemonte.

Table 1. Piemonte Key stakeholders in ICT for creative industry

N	Player, organisation, enterprise name	Short description	Why stakeholder	Which type <sup>1</sup>	Web	Publ ic, Priv ate, No- Profi t
1	ACCADEMIA ALBERTINA BELLE ARTI	it is the Torino historical academy of fine arts, an high level training school in arts. As for digital art, Share Festival has been hosted by the Academy since 2005	The Academy is very active in the field of art and in initiatives promoting young artist. It boosts strong relationships with all main museums in Piemonte	Т	www.accade mialbertina.T urin.it	
2	AGIS	National general association on entertainment	Representative of SMEs in the entertainment sector, in particular cinema	О		PR
3	AIE- Associazione Italiana Editori	The "Associazione Italiana Editori" is the trade association for Italian publishers - and for foreign publishers operating in Italy - of books, magazines and digital products.	Representative of SMEs, doing research and studies as the Annual Report on the state of publishing in Italy	O	www.aie.it	Pr
4	API TORINO- Associazione Piccole e Medie Imprese di Torino e Provincia	It is the association of small and medium enterprises based in the Provincia of Torino	It represents SMEs	0	www.a pito.it	Pr
5	APM Saluzzo (To)	It is a professional training school for art professionals	Very specialist School and courses related to creative industries and ICT, especially in the music sector	Т	www.sc uolaap m.it	P
6	APT	It is the national association of TV producer	Representative of SMEs of TV sector	0	w w w ap	Pr
7	ARS MEDIA	It is a company working on graphic design, interactive multimedia, video, film and advanced software solutions	This agency could offer and interesting point of view because it is working both for the private and the public sector and in particular with some institution such the Cinema Museum and the International book fair of Turin	Е	www.ars-media.it	Pr

<sup>&</sup>lt;sup>1</sup> Research, enterprise, PA, development agency, training organisation, event, cultural association, other

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8	ASIFA- Associazione Italiana Film d'Animazione	It is the Italian Association of authors and producers of animation movies	Representative of SMEs of animation, promoting workshop, contact and exchange of experience between animation artists all over the word. The ASIFA Italian section was founded in Turin	CA	www.asifaitalia. org	No profit
9	ATELIER	Atelier is a network of professionals, working in 3d animation, web and audiovisual. They are trying to develop a system for creative culture. The network aim is connecting connect creative professionals and enterprises with local SMEs and to promote the Turin creative system at regional and national level	Atelier is colleting an existing network of people working in the multimedia sector Atelier is promoting young people and artists with support, information about public announcement, competitions, and events. It seem to be an interesting model to support both creative professionals and SMEs	R	www.progettoatelier.to.it	Pr
10	BIBLIOTECA NAZIONALE UNIVERSITARIA DI TORINO	The Biblioteca Nazionale di Torino (Torino national library) belongs to the national Ministero per i Beni e le Attività Culturali. It is part of the SBN- Sistema Bibliotecario Nazionale (library national system) and is one of the regional seats for the publication legal deposit according to the Italian law <sup>2</sup> .	It is relevant as "customer" for creative enterprises and for ICT application to culture and cultural heritage.	PA	www.bnto.librari.benicultur ali.it	P
11	CAMERA DI COMMERCIO DI TORINO	It is the Chamber of Commerce with jurisdiction on the territory of the Torino Province.	It fosters the growth of local economy and enhances it through effective and targeted initiatives. Particular attention to SMEs.	О	www.to.ca mcom.it	P
12	CINEMA & AUDIOVISUAL EUROPEAN DAYS. TORINO CO- PRODUCTION FORUM	Devoted to independent film production, the Cinema and Audiovisual European Days features the principal Coproduction Forum in Italy, with recognition and support from the EU's MEDIA  Programme. The event goal is to encourage European project development for cinema, TV and new media (fiction, documentaries, animation), by a networking event open to producers, authors, regional and national funds, film commissions, broadcasters and distributors from all over Europe, to search out for new partners for high potential international co-productions.	It connects artists and enterprises with the production and helps them to connect with European productions as well.	O, Ev	www.europeandays.eu	Pr

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 $<sup>^2\,</sup>$  See national Italian law: Legge 15/04/2004, n. 106, "Norme relative al deposito legale dei documenti di interesse culturale destinati all'uso pubblico"

10	CINTER SA AND	T	T	æ		
13	CINEMA AND	It is a very specialist	It proposes very specialized	T		
	MEDIA	university course, that	courses related to creative			
	ENGINEERING	combines engineering	industries and ICT		www.polito.it <sup>3</sup>	
	DEGREE at	knowledge and the knowledge			litc	
	POLITECNICO DI	of Information &			od	
	TORINO	Communication Technologies			×.	
		with cultural and aesthetic			<b>X</b>	
4.4	CINIEDODEO	ones.	A CALC	D.A		ъ
14	CINEPORTO	Cineporto is a service and	A part of the Cineporto is meant	DA		P
		business centre, addressed to	for qualified sector companies			
		all film and TV productions	which thus will have the			
		that have chosen Torino and	opportunity to interact with			
		the surroundings as set for a	guest production.			
		video production. It is a			p.ir	
		project by Film Commission			ţţ	
		Torino Piemonte together			<u>×</u>	
		with Città di Torino and			www.fctp.it	
15	CINECHOW	Regione Piemonte	Tr.	O.F.		D
15	CINESHOW	The first trade fair of the	It proposes as an opportunity to learn about all of the new	O, Ev		Pr
		audiovisual industry in Italy			www.cineshow.it	
			industry trends, from production		hov	
			to distribution. The technology		ies	
			revolution and new ways to use		cir.	
			images are rapidly moving this		×	
			industry toward the digital format.		8	
16	CLUB TO CLUB	International festival of		Е		No
16	CLUB TO CLUB	electronic music and art	Promotion digital music culture	E		No profit
17	CNA	National Confederation of	in Piemonte Representative of SMEs and	О		Pr
17	CNA		doing research on creative	U	www .cna.t o.it	PI
		craftsmanship and SMEs	industries		ww .cn o.ii	
18	COMPAGNIA DI	Bank foundation	It finances, among several	0		Pr
10	SAN PAOLO	Bank foundation	public interest initiatives, also	U	www.c ompagn ia.Turin .it	гі
	SANTAULU		projects focused on ICT and		www.c ompagr ia.Turir it	
			creative industries		wv om ia.'	
19	CRIT - Centro	CRIT is the research centre of	The Centre contributes to the	R		P
19	Ricerche e	the RAI Group, the Italian	evolution of the broadcasting	IX.		1
	Innovazione	public TV broadcaster	and multimedia system and		+	
	Tecnologica	public I v broadcaster	supports the RAI Group in its		ai.i	
	Techologica		choices in the technological field		www.crit.rai.it	
			and the phases of experiment			
			and introduction of new		× ×	
			products and systems.		¥	
20	CSP - Innovazione	CSP is a research and	It works on cutting edge	R, DA		Pr,
20	nelle ICT	technological transfer agency	research on ICT, on	π, υπ		No
	nene re r	working on ICT for local PAs.	technological transfer towards			profit
		Working also on the regional	SMEs, on supporting local Pas		p.	prom
		transition to digital terrestrial	in policy making in the ICT field		www.csp.it, rd.csp.it/dtvlab	
		TV with a dedicated	in poney making in the real field		p.ii /dt	
		laboratory, DTTLab (Digital			.cs p.it	
		Terrestrial Television			www.csp.it, rd.csp.it/dtv	
		Laboratory)			w rd	
21	DAMS <sup>4</sup> DEGREE,	These are very specialist		T, R	3	P
	SCIENCE OF	university courses related,			//dams.campusnet.u nito.it, www.scidecom.uni to.it,	
	COMMUNICATION	from different points of view			//dams.campusnet.inito.it, www.scidecom.uni to.it,	
	DEGREE,	to ICT and creative industries.			npr Scox	<b> </b>
	COMPUTER	industries.			zan zide	1
	SCIENCE DEGREE				ns.c it, '.sc	]
	at the UNIVERSITA				//dams. nito.it, www.s to.it,	
	DI TORINO				<u>                                   </u>	1
Ь	211011110		<u>l</u>	l	l	

<sup>&</sup>lt;sup>3</sup> See details at

didattica.//polito.it/pls/portal30/sviluppo.offerta\_formativa.corsi?p\_sdu\_cds=37:540&p\_lang=EN&p\_tipo\_cds=1&p\_a\_acc=2007 

DAMS stands for DISCIPLINE ARTE MUSICA e SPETTACOLO.

			T	1	1	
22	DE AGOSTINI	DE AGOSTINI is a relevant traditional and multimedia publisher	An important and innovative company in the publishing sector, with a department working on digital publishing, including Internet, digital television and mobile platforms	Е	www.deagost inieditore.co m	Pr
23	EASYBIT	It is a web agency based in Torino, working on web design, interaction design, web services	Representative agency of creative industries, actively taking part to association as, for example, TURN	Е	www.ea sybit.it	Pr
24	ENARMONIA AND ENANIMATION	It is a company acting as a producer of 3D animation movies and TV series for children	One of the most famous in Turin, certificated and awarded, growing every day. The company already operates in international marketplace and its CEO acts also as representative of the Piemonte animation cluster	Е	www.enarmoniapic tures.it	Pr
25	ENZIMA P	Enzima P is a consortium of local public bodies acting as an integration platform for services supporting innovation in Piemonte, in the fields of technological transfer, enterprise promotion, fundraising, intellectual property.	It connects research with enterprises	DA	www.enzima-p.it	Pr
26	EXTRACAMPUS	Extracampus is the multichannel TV of the University of Turin, born in 2003.	It aims at show off the intelligences and the youthful creativity, through experimentation of audiovisual languages connected to programs development and to the knowledge of new technologies	T	http://extracampus.d schola.it	P
27	FABER	FABER is a networking event, addressed to support the development of ideas and opportunities for creative firms. It consists of an award and of workshops on audiovisual arts, animation cinema, 3D modelling and web/graphic design	FABER has a good view and knowledge of the local creative professional pattern.	O, Ev	www.fabermeeting.it	No - profit with Publi c foun d
28	FERT Filming with a European Regard in Turin	Professional association of independent producers and editorial specialists. Main branches are: Editorial Innovation, MEDIA Antenna, Co-production fora.	Active since 1993 in promoting EU networking of independent content producers. FERT manages the MEDIA Antenna Torino, the European Cinema & Audiovisual Days, the Book Film Bridge; coordinates the Piedmontese cluster of factual producers; promotes RTD and manages IPRs through its affiliate Fert Rights ltd.	DA	www.fert.org	Non- profit
29	FIERA INTERNAZIONAL E DEL LIBRO DI TORINO	Yearly international book fair	This kind of events an important opportunity for local artist and creative to keep themselves updated and to do some networking at an international level	O, Ev	www.fieralibro.it	Priva te Foun datio n with most ly publi c foun d

30	FILM COMMISSION TORINO PIEMONTE	Film Commission Torino Piemonte is a non-profit Foundation, established and financially supported by Regione Piemonte and Turin city council. Operating since September 2000, it has set as its main goal the promotion of Piedmont and its capital city, Turin, as an excellence film location and working place for film and TV productions, thus attracting to the area Italian and foreign productions while supporting the local film and television industry, creating therefore new working opportunities for professionals involved in this sector	It creates opportunities for cinema and other creative sectors in Piemonte. It is the main reference point for cinema production in Piemonte and the main promoter of CINEPORTO.	DA	www.fctp.it	No profit
31	FINPIEMONTE	It is the financial body of the Regional Government	It manages from financial point of view, the regional strategy, policy and founds, with a particular attention to enterprises.	DA	www.finPi edmont.it	PR
32	FLASH FESTIVAL	an international festival for the promotion of digital animation, digital art and productions and games realized by the Adobe Flash multimedia platform.	Many creative professionals from Piemonte take part to this competition	Е	www.flashfestiv <u>al.it</u>	No profit
33	FONDAZIONE CRT	Bank foundation	It finances, among several public interest initiatives, also projects focused on ICT and creative industries	0	www.fo ndazion ecrt.it	Pr
34	FONDAZIONE FITZCARRALDO	The Fondazione Fitzcarraldo is an independent centre for planning, research, training and documentation on cultural, arts and media management, economics and policies. It is at the service of those who create, practise, take part in, produce, promote and support arts and culture.	It is responsible for the institutional research activities of the Cultural Observatory of Piemonte (OCP). Creative industries are closely monitored, in order to provide an analysis of the main variables and short-term trends.  Moreover, it runs courses and workshops about creative industries and promotes Art Lab, a yearly congress about education sector in cultural industries	R, T	www.fitzcarraldo.it www.ocp.Piedmont.it	Pr
35	FONDAZIONE TORINO MUSEI	The Torino Musei Foundation is a non profit organisation born to manage the main municipal museums in Torino (GAM - Galleria Civica d'Arte Moderna e Contemporanea, Museo Civico di Arte Antica and Palazzo Madama, Borgo and Rocca Medievale, Museo d'Arte Orientale. The so called "Torino Musei" network gathers and promotes several different museums based in Torino.	Cultural industries could be interested in testing, experimenting and using ICT to widen their public and to innovate themselves.	0	www.comune.torino.it/musei, http://www.fondazionetorinomusei.it	P, Pr, No Profi t

36	FONDAZIONE SANDRETTO RE REBAUDENGO	It is a centre for contemporary art, aimed at promoting contemporary art, at supporting a putting value on young artists. It has also an educational department.	The Foundation develops many initiatives in digital art, thanks to event and exhibitions.	O	www.fondsrr.or	Pr
37	FONDAZIONE TORINO WIRELESS	The Torino Wireless Foundation promotes the growth of the ICT District in Piemonte, in synergy with the other local players. Main activities in the district are: R&D activities enhancement, applied research, intellectual property valorisation, enterprise acceleration also through innovative financial instruments, networking between SMEs, internationalization, training, competences attraction.	It works out the strategic guidelines of the District and fosters synergies among the different players in development, granting coherence and integration to the ICT development policies of the local area, providing central coordination in order to dialogue constantly and coherently with other districts in the world	DA	www.torinowireless.it 8	Pr with publi c foun d
38	GAM- Galleria Civica di Arte Moderna e Contemporanea	It is the municipal Gallery of Modern and Contemporary art in Torino. It has also an educational department.	A service of video library is available with a wide collection of films, documentaries and video: this is a good example of ICT use in a Civic Museum. In general terms, it could be relevant as "customer" for creative enterprises and for ICT application to culture and cultural heritage.	0	www <u>.gamtorino.it</u>	P
39	HOLDEN SCHOOL	It is an advanced training school in creative writing and storytelling	The school trains also professional writers for cinema, TV and videogames	T	www .scuo lahol den.i	PR
40	I3P- INCUBATORE IMPRESE INNOVATIVE DEL POLITECNICO DI TORINO	It is the incubator for innovative enterprises of the Politecnico di Torino.	Support enterprise creation and firms spin-off, building on the innovative potential developed in research and academia bodies across the territory, with a particular focus on young talents and potential entrepreneurs coming from the Politecnico di Torino.	DA	www.i3p.it	P
41	IAAD- Istituto d'Arte Applicata e Design	The IAAD Torino, born in 1978 in the capital city of industrial design, is a reference point in design for training and industry.	Very specialized design school and courses	T	www.iaad. <u>it</u>	P
42	IAL	It is a no profit cultural institute for professional training.	It proposes, among many other subjects, very specialized courses related to creative industries and ICT	T	www.ia <u>IPiedmo</u> nt.it	No profit
43	IED- Istituto Europeo di Design di Torino	It is a high level training institute proposing courses on design and creativity.	It proposes very specialized courses related to creative industries and ICT	T	www <u>ied.i</u> <u>t</u>	PR
44	IMMAGINAZIONE LAVORO	It is a no profit institute for professional training.	It proposes, among many other subjects, very specialized courses related to creative industries and ICT	T	www.immagi nazioneelavor o.it	P with publi c foun d

	T	I range in the second	Transpir i i	T_	T	-
45	ISMB - Istituto	ISMB is an applied research	ISMB is active in crucial	R		Pr
	Superiore Mario Boella	centre in wireless	research areas for creative			with
	Воена	technologies and networks, satellite positioning systems,	industries, such as ICT &		. <del>=</del> I	publi
		radiomobile technologies for	society, technology and education, knowledge and		www.ismb.it	c foun
		multimedia systems and RFId	territorial development		isi.	d
		(Radio Frequency Identifiers).	territoriai development		×	u
		(Radio Frequency Identificis).			<b>8</b>	
46	KUT	It is a web and	It is active in many different	Е	d	Pr
	COMUNICATION	communication agency,	sector of creative industries and		www.k utcomm	
		working on advertising, 3D	ICT solution, not only in		www utcon	
		animation, films, web	Piemonte		M III SI	
47	LASTERGO E	It is a company acting as a	It is a successful enterprise at a	E	वा स	Pr
	TESTA	producer of 3D animation	national and international level		w.l god i.it	
		movies and TV series for	in the field of 3D animation.		www.la stregoet esta.it	
40	Management	children			21 301 01	<b>D</b>
48	MICROCINEMA	It is an enterprise working on	It is quite a relevant player, both	E		Pr
		digital cinema. Started in the '90s mainly with public-	for technologies and for an innovative business model,		. <del></del> .	
		funded research and	working at a national and		www.microcinema.it	
		promotional activities,	international level		Tel le l	
		nowadays it provides over 70			<u>.i2</u>	
		cinema halls in Italy with			iic	
		technologies and digital			<u>m.v</u>	
		movies (distributed via two-			<u> </u>	
		way satellite).			≱	
49	MIP- METTERSI IN	MIP is the enterprises	It knows local creative industry	DA		P
	PROPRIO	incubator initiative by the	needs and capabilities		www.m ettersin proprio. it	
		Provincia di Torino			www etter prog	
		Government of Turin			의 이 다.티	
50	NATIONAL	Ministry of innovation and	They define policy and strategy	PA	.EI.O.T	P
	GOVERNMENT	Ministry of cultural heritage	at national level and (co)fund		novazio ne.gov.	
		are the most relevant ones in	activities.		www.in novazio ne.gov.i t,	
51	MUSEO	this field The NATIONAL MUSEUM	It is relevant as "customer" for	0		P
51	NAZIONALE DEL	OF CINEMA was born in	creative enterprises and for ICT	U		wit
	CINEMA DI	1941 from a private	application to culture and			h
	TORINO	collection. Since 2000, it is a	cultural heritage, the museum is			pub
	101111	cultural foundation, supported	already active in ICT projects			lic
		by the main local public	and trials.			fou
		authorities, and it is hosted in				nd
		the Mole Antonelliana (a				
		unique building, symbol of				
		the town). It has a world-wide				
		relevance both for the				
		collection richness				
		(archaeology of cinema,				
		history of photography, movie posters, photographic records,				
		stage sets), and for the unique			a.it	
		exhibition design developed			e	
		"in vertical", boosting the			Ci.	
		architectonic structure of the			www.museonazionaledelcinema.it	
		building.			ale	
		The museum is also one of the			Zior Zior	
		seats for the legal deposit for			naz	
		movies, screenplays, film			860	
		subjects and photos,			<u>nu</u>	
		according to the above			W.I	
		mentioned Italian law about			<u>                                    </u>	
	1	the legal deposit <sup>5</sup> .		1		Ì

<sup>5</sup> See note number 2.

	1	T				
52	NEXA	NEXA is a centre for the	It can support mainly policy	R		P
		study of Internet and society	makers in better addressing ICT			
		born within the Politecnico of	policies, but also the creative			
		Torino. It has a	industries in facing and			
		multidisciplinary perspective	exploiting the digital revolution			
		(technical, legal and	challenges.			
		economic) and it works on				
		subjects such as peer-to-peer			iit	
		networks, inexpensive digital			ito	
		devices, open source			lod	
		software, user friendly editing			ха.	
		tools, cheap storage,			//nexa.polito.it	
		affordable bandwidth.			"	
53	ORDINE DEI	It is the Piemonte section of	It represents local journalists,	O	8 50 8 A	Pr
	GIORNALISTI DEL	the Professional Journalist	professional writers and		www odg. it, www	
	PIEMONTE	Society	publishing enterprises.		N ii	
54	OSSERVATORIO	The Osservatorio is a research	Beside the general overview, it	R	it	Pu
	REGIONALE ICT	organism directed by IRES,	is approaching in 2009 also the		nt.	
		with Piemonte Region, CSI,	field ICT and creative		шо	
		CSP and Polytechnic, targeted	industries.		ied T	
		to monitor ICT and broadband			aP.	
		development and impact in			em oric	
		the Piemonte society and			sist ⁄ato	
		territory, with an analytical			w.s	
		focus on citizens, PAs,			www.sistemaPiedmont.it /osservatorioICT	
		enterprises.			<b>^</b>	
55	PIEMONTE SHARE	Piemonte Share Festival is an	It knows very well local creative	O, Ev		No
	FESTIVAL	yearly event dedicated to the	industry needs and capabilities			profit
		awareness and promotion of				with
		art and digital culture,				Publi
		developing the creativity				c
		fuelling the new expressive				foun
		possibilities offered by new				d
		media and technological				
		innovation in general.				
		It has been engaged for years				
		in the promotion and				
		dissemination of art and				
		digital culture, the				
		international exchange of				
		knowledge, interdisciplinary				
		contacts, cross-media				
		platforms, and multimedia				
		projects. The Festival gives a				
		perspective on the network				
		and expansion initiatives				
		shared with the local				
		territory <sup>6</sup> and with artistic				
		research and technological				
		innovation centres abroad.				
		Every year a cross-cutting				
		theme is chosen, ranging				
		from conferences and				
		performances, to a selection			.e. ii.	
		of the creative expressions			har	
		applied to digital technologies			tos	
		(art, music, performances,			×.	
		installations, database cinema,			www.toshare.it	
	DED 01	software art, etc).		_	-	т.
56	REDOMINO	It is a web agency working on	It works both for enterprises,	Е	o.	Pr
		design and web, with a direct	PAs, SMEs and the educational		www.re domino. it	
		and continue contact with the	sector. Moreover it proposes		ww don	
		Open Source world	training activities.		, ,	

 $<sup>^6</sup>$  It is working with festivals such as Club to Club, View, Netmage, Malafestival, Elettrowave.  $^7$  Such as Ars Electronica in Linz, Sonar in Barcelona, Transmediale in Berlin, and DEAF in Rotterdam

58	Regional government of Piemonte  SCUOLA NAZIONALE DI CINEMA - CORSO DI ANIMAZIONE at the FONDAZIONE CENTRO SPERIMENTALE DI	Most relevant department for this field are:  O Department of innovation, research and university O Department of education O Department of culture Department of industry  The (SCUOLA NAZIONALE DI CINEMA - CORSO DI ANIMAZIONE), or school of specialisation in animation arts is an advanced and specialist school in animation and cinema	They define policy and strategies, (co)fund activities, enterprises, research.  Moreover they have an observatory on education and university  It proposes very specialized courses related to creative industries and ICT	PA T	www.snc.it www.regione.piem onte.it	P
	CINEMATOGRAFI A				ww	
59	SPORTELLO IMPRESE della CITTA' di TORINO, PRATIKA project	Within the City Council relevant sectors are mainly 1) the Department of culture and education, as "customer", for creative enterprises.  2) the enterprises incubator. In particular, a project called Pratika helps young creative professionals with incubation actions, co-funding and training for improving their entrepreneurial capabilities	They define policy and strategy at local level and (co)fund activities.	PA	www.comune.torino.it/artecultura, //sportellounico.comune.Turin.it/cre are_impresa/incubatori.html	P
60	TELECITTA' STUDIOS	It is a centre for TV, fiction, cinema production based in the Torino surroundings.	It provides structures, services and technological and artistic expertise to audiovisual production.	Е	www.telec ittastudios. it	Pr
61	TO DO	ToDo defines itself "a next- gen design studio", working on interaction and media design and the integration of ideas, interactivity and technology. TODO "designs for a demographics who have thoroughly integrated digitalness into their lives", "dealing with identity and strategy in the age of the mobile web, social networks, physical and pervasive computing."	It is a very active agency doing research, dissemination, production and events with ICT not only in Piemonte	Е	www.todo.to.it	Pr
62	TOP-IX	TOP-IX is a geographically distributed internet exchange point for north-west Italy. It mainly develops and manages the network infrastructure to provide Internet Exchange services.	TO-PIX Development Program (DP) makes available an open innovation environment to foster new business creation.	DA	www.top-ix.it	No profit

63	TORINO 150	It is a Committee, made of most relevant public authority of Piemonte, aimed at organising the celebration of 150th anniversary of the national unification in 2011. Turin and Piemonte are preparing an international happening, as in 1911 and in 1961.	The celebration is an opportunity for creative industries.	O, Ev	www.italia150.it	P
64	TORINO PIEMONTE ANIMATION CLUSTER	The cluster gathers main companies and producers of digital animation in Piemonte. It gathers Enarmonia, Motus, Lastego &Testa, VRMM Park, Lumiq Studios	It promotes, at a local, national and international level Piemonte digital animation players and expertises. Moreover, it helps the sector form the inside in developing new business models and new markets. Finally, it knows very well the local sector needs, capabilities, strengths, weaknesses.	0	www.tpanimation.com	No profit
65	TP – ASSOCIAZIONE TECNICI PUBBLICITARI	Italian Association of Professional advertising	Representative of advertising and communication professional and agencies at the national level.	О	www.as sociazio ne-tp.it	Pr
66	TURN	TURN is a cultural association of designers, architects, graphics and copywriters promoting design in Torino	It is a solid SMEs network and it knows very well needs and capacities, strengths and weaknesses of the regional system with regard to ICT- innovation in creative industries	CA	www.turn.to.i t	No- profit
67	UNIONE INDUSTRIALE TORINO	The Employers' Association of Turin, is a voluntary association of companies, at a regional level, which aims to represent, protect, promote and develop member companies and their interests.	It represents, gathers and provides services to most the regional entrepreneurs. It boosts also a well-active study and documentation department.	O	http://www.ui.torin o.it/nn-eng/	Pr
68	VIEW CONFERENCE	It is an international computer graphics conference, hosting videogame developers, computer graphic masters and representatives of the main companies in the sector. The conference program includes the VIEWFEST dedicated to digital cinema	This kind of events is an important opportunity for local artist and creative to keep themselves updated and network at an international level.	O, Ev	www.viewconference.	Priva te with Publi c foun d
30	VRMMP- Virtual Reality and Multi Media Park	A scientific and technological park supported by local and regional institutions and European Union, working on virtual reality and multimedia. It leads the newborn (2009) regional innovation pole on creativity and multimedia. Moreover, it has a training department, providing very specialized courses on virtual reality and multimedia.	Promote research and development of innovative applications for audiovisual and multimedia sectors.  Leading the innovation area for creative industries.  Providing very specialized training opportunities in the audiovisual and multimedia sectors	PA, DA, T	www.vrmmp.it, www.edu.vrmmp.i	P, No- profit , PR (train ing activi ties)

### 1.2 Cluster map with key stakeholder groups

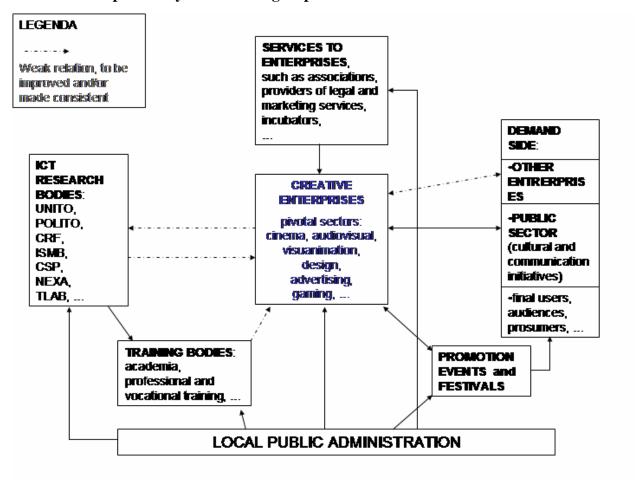


Figure 2. Cluster map of key stakeholder groups

#### 1.3 Key figures of the Creative Industries and ICT Research

In the following table 1 we report summary data according to the CREATE template for the number of firms, aggregated turnover, number of graduates in year 2007. In order to provide more disaggregated data we also report a table (Table 2) that includes all the relevant references and sources of information. Finally, we report in Table 3 a list of training institutions and research institutes and related web sites.

Table 1 – Facts and figures about regional creative industries clusters. References and sources are listed in Annex 1

Creative Industries (No. of firms)	BW	Piemonte	Rhône-Alpes	West Midlands
Music, radio, Audio		106		
Film, television video		96		
Animation and computer games		10		
Writing and publishing		74		
Advertising and marketing		172		
Architecture, visual art and design		34		
No. of Employees				
Music, radio, Audio		292		
Film, television video		1270		
Animation and computer games		250		
Writing and publishing		1285		
Advertising and marketing		4812		
Architecture, visual art and design		328		
Turnover (M Euros)				
Music, radio, Audio		16.6		
Film, television video		180		
Animation		15		
Writing and publishing		468		

Advertising and marketing	N.A. <sup>8</sup>	
Architecture, visual art and design	66.3	
No. of educational training institutions in creative industries	22	
No. of students graduating		
BA	945	
MA	1237	
PhD	48	
ICT Research		
No. of research institutes/labs	15	
Number of educational training institutions in ICT	3	
Number of students graduating in ICT- fields		
BA	687	
MA	563	
PhD	52	

 $^{8}$  The aggregated turnover for the advertising and marketing sector still needs to be checked to control for the presence of outliers not relevant for the objectives of the study

Table 2 - Detailed data on creative industries and related data sources. References and sources are listed in Annex 1

Creative Inc	dustries	Pien	nonte			Source
No. Of firms						
If possible according to CR	leATE -subsectors :					
		No. Of Firms		Turnover		
		100				
- Music, Radio and Audio		106		16670793		3
- Film, television and video	•	96		180110867		3
- Fillif, Geleviskali di ki videk		30		TOOTTOOO		
- Animation and computer	r games					
(entertainment software)	•	10		15000000		4, 2
						-
<ul> <li>Writing, publishing and p</li> </ul>	orint media	74		468211968		1, 2
- Advertising and	marketing					
		172		2496777565	<u> </u>	1, 2
And bearing the set of	ad also sissa	24		CC2-CC2-T2		
Architecture, visual arts ar	na aesign	34		66368272		1, 2
No. Employees		Film, television and video		1270		3
If possible according to CR	leATF - subsectors	Music, Radio and Audio		292		3
in promise and any		Publishing	<del>                                     </del>	1285		1
		Design and Architecture		328		1
		Advertising		4812		1
		Animation & Computer games		250		4
No. Of freelancers (if avail	lable)	<u> </u>	9			
No. Of educational training creative industries	ng institutions in	22				8, 9, 10
		University of Turin/Polytecnic	2005	2006	2007	8
		BA	795	826	842	
		MA	959	874	716	
		Diploma	25	9	7	
		TOTAL	1779	1709	1565	
		University of Turin/Polytecnic	2004	2005	2006	8
No. Of students graduatin	~ .	PHD	34	39	48	
(BA, MA, PHD) in Creative	e industries	Master (*)	64	35	105	
		TOTAL	98	74	153	
				near faces	2227/2222	
		School of Art and Music	2005/2006	2006/2007	2007/2008	8
		BA	7	15	103	
		MA Post - MA	414 0	376 2	356 58	
		TOTAL	421	393	519	
ICT Research						
No. Of research institute/		1	15			11, 12
(incl. Research groups at universities)						
Number of educational tr	aining institutions ir		3			8, 11, 12
ICT						0, 11, 12
		University of Turin/Polytecnic	2005	2006	2007	8
		BA	709	712	687	
		MA	492	467	488	
		Diploma	27	14	12	
No. Of students graduating		TOTAL	1228	1193	1187	
(BA, MA, PHD) in ICT - fiel	165					
		University of Turin/Polytecnic	2004	2005	2005	8
		PHD	39	45	52	
		Master	74	74	75	
		TOTAL	113	119	127	

#### 1.4 Regional needs, capacities and related policies and supporting measures

#### 1.4.1 Fields of excellence

Certainly it is possible to pinpoint some field of excellence in creative industries and ICT sector or in other areas strictly connected to the central core of this analysis. First of all, in Piemonte there is a variety of **educational and training opportunities** in this sector; then there is the primacy of **design**, mostly connected to the automotive sector and, there are two excellence related to the sector of **cinema** and to the sector of **animation**. Those two above mentioned excellences in cinema and animation are relevant for the item of this research because they represent at the same time a source for the present and a challenge for the future of the Region: those are both sectors where it is important to invest, to maintain and improve the level of competences achieved and developed and strengthen them. More than a final point, cinema and animation represent an excellent starting point for creative industries in Piemonte.

It is important to stress that Piemonte Region is one of the "pilot region" in Italy working for the transition to **digital terrestrial television**.

#### UNIVERSITY, MASTERS AND TRAINING

Piemonte is characterised by a growing number of university degrees, masters, postgraduate and professional courses aimed to satisfy creative industries requirements. Among the traditional degree courses, there are some very specialist degrees and courses in the filed of creative industries. The Politecnico di Torino runs a **Cinema and Media Engineering Degree**, that combines the Information Technology curriculum and media knowledge. It is an innovative idea that allows, for the first time in a European university, the integration between the pragmatic model of the polytechnic culture (educational model based on the concept of design and development) and the communication strategies of the media and new media system. The teaching staff includes people working in the field of show business, cinema and communication, to gather ICT technological skills and history and techniques of the cinema and of the communication. Public and private subjects support this innovative degree program<sup>9</sup>.

It's important to mention also the **Training Area of the Virtual Reality and Multi Media Park** that moulds professionals of audiovisual and interactive multimedia productions with special effects' contents: there are many different and specialist courses related to creative industries and ICT. The School is inside the production and technological centre for research and development (VRMM); students can apprehend work methodologies and experience advanced techniques. Listed above some examples of courses:

- o Post-graduate Annual Master Programme in Writing and Story Editing for Audiovisuals
- o Annual Master Programme in Video Technique, Effects and Compositing
- o Annual/Biennial Master Programme in Computer Graphics
- o Post-graduate Annual Master Programme in Digital Entertainment, Game Design and Motion Capture techniques

Last but not least, the Foundation Centro Sperimentale di Cinematografia organises the **School of Specialisation in Animation Arts and Skills** and the University of Turin runs a **Degree in Art. Music and Performance (DAMS).** 

Another interesting project, that combines training with professional aspiration in the field of digital TV, is **Extracampus**<sup>10</sup>, the multichannel TV of the University of Turin, born in 2003. Extracampus broadcasts institutional, scientific, cultural and didactic information about the university world, and collaborate with the others cultural territory institutions in order to contribute to structure the most favourable relationships and exchanges between universities, territory and citizens.

<sup>10</sup> For further information see: http://extracampus.dschola.it

<sup>&</sup>lt;sup>9</sup> For further information see: http://didattica.polito.it

Extracampus pursuits the target to show off the intelligences and the youthful creativity through experimentation of audiovisual languages connected to programs development and to the knowledge of new technologies. It also contributes to promote new professional figures, innovative creativity expressions for new generations.

Extracampus' team is composed by teaching staff, external collaborators and above all by trainee students, neo-graduates, and hired graduates. They work on the whole steps of audiovisual production, from the program contents' elaboration to theirs put into practice.

The productive structure is provided with high professional equipments in order to do records, post production and graphical effects. Extracampus' productive activity allows to support with experimental activity the traditional didactics offers.

#### **DESIGN**

Turin has always been identified with a strong vocation for a technology-intensive development model, strictly related to the industrial sector. In Turin most of services and activities of the tertiary sector has grown with the automotive that, since many years, is characterized non only by car productions but also on a complex system of services combining manufacturing with technology, advanced services as consulting, research, design. So design in Turin is peculiar because is linked with the automotive sector that still that take up a relevant and important place in Turin. The transition to the tertiary system from the industrial system has been leaded, until the 90ties of the last century, from the activities connected to car production, in particular for informatics and design: big brand of style design applied to the production. It's important to underline that this is truth also for other sectors that are relevant for this analysis, as information and communication technology. In September 2005, the City of Turin was nominated the first World Design Capital, in recognition of the crucial role that Turin and Piemonte play on an international level. Today the city is involved in a planning process to renew Turin's image from an industrial city to a "post industrial city", in which development is based on a combination of innovation and creativity, starting with a solid tradition of entrepreneurship and planning. The presence of research centre, style centre and model and prototype laboratories in various productive sectors represent an added value to the strong industrial tradition in Turin and Piemonte. Design is an important key to understanding the process of transformation underway in Turin and Piemonte. The area is characterized by numerous excellences in the field of design, including automotive, aerospace, nautical, cinematographic, ICT, gold and jewellery, textiles and many other activities.

#### **CINEMA**

There are many different institutions in the sector of cinema that allows to identify a field of excellence of Cinema in Piemonte, in particular in Torino: there are, in fact, many activities, projects, places and institution that work together in a complex and very rich system. Among the already mentioned Cinema and Media Engineering Degree and the School of Specialisation in Animation Arts and Skills, starting from 2000 Turin hosts the **Cinema Museum** (one of the most important in the world). The Museum is housed inside the Mole Antonelliana, symbol of the city of Torino. The Museums it's a good example of interactivity applied to creative industries; the museum take actively part to all the activities and the projects related to cinema and it has been identified recently as legal deposit for films.

An important role of development in Torinois played by **Film Commission Torino Piemonte**<sup>11</sup>: a non-profit foundation established and financially supported by Piemonte Region and Turin city council. The mail goal of the Film Commission Torino is the promotion of Piemonte and its capital city, Turin, as an excellence film location and working place for film and television

<sup>&</sup>lt;sup>11</sup> The different activities of Film Commission Turin, Cineporto, Doc Film Found and FIP are all described in detail in the website www.fctp.it

productions; the main aim of this institution is to become a point of reference in this sector, and to create opportunities for professionals involved in this sector.

Recently there is another interesting structure of Film Commission the so called **Cineporto**, realized with City of Turin and Piemonte Region. The Cineporto is a business-centre dedicated to film and television producers. The centre is organized to host Film Commission Turin Piemonte offices but the main goal of this structure is to host to production come to Turin for filming. Cineporto host also a film theatre for daily views and many shared services for professional working in this sector.

In the system of cinema the are also two important instrument for founding: the old one is the **Piemonte Doc Film Fund**, active since 2007, aimed at supporting and promoting film and video production. The found is open to Italian and foreign productions, for projects on subjects related to the local area and for projects involving local companies and professionals in the post-production stage. The maim aim of the fund is to enforce co-production between local, national and international companies. Piemonte Doc Film Fund offers support for all the duration of the project, starting from the idea until the post production.

The most recent one in the so called **Film Investment Piemonte** ("FIP"), an investment company established in 2009 to produce and finance filmed entertainment product for the international market. FIP investments will spend a part of their budget in the Piemonte region where they will benefit from state of the art production facilities and diverse natural landscapes and locations; while enhancing the local economy and talent. The Company will invest in filmed entertainment projects with the aim to stimulate commercial returns to its investors and reinforce Piemonte's position as a European production centre. FIP was founded by **Regione Piemonte** trough the **Film Commission Torino Piemonte** and US-based production and finance company, **Endgame Entertainment**.

Another important happening for the system cinema is the **Turin Film Festival**, this year at the 26th edition, one of the most interesting festival for independent cinema. Many other film festivals are hosted in Turin: Sottodiciotto film festival<sup>12</sup>, Cineambiente and so on.

Starting from 2008, a new fair dedicated to the film industry takes place in Turin: it is **Cineshow**<sup>13</sup>, a commercial fair with an exhibition area and an intensive programme of events and meetings. Technology, art, culture, and business will mix at roundtables featuring personalities from the cinema and television industries and experts in digital technology, with the aim to discuss new trends and prospects.

A really good example of connecting enterprises and creative industries is **Microcinema**, a network promoting digital cinema. Microcinema started is activity is 1997 with aiming at support and develop digital cinema in Italy, with the technological support of Centre for Research of Rai Group, the public television broadcasting System in Italy. In 2006, with an institutional and private investment <sup>14</sup>, Microcinema becomes a private enterprises working on innovative technologies and innovative business model for distribution of digital cinema. The aim of the company is to apply digital technologies to the cinema production row to reduce high cost for distribution. Microcinema offers services through digital technology and bidirectional satellite transmission, such as live events, remote systems control and maintenance, automatic invoicing of royalties by means of the ticketing system. Microcinema is a good example of a flexible and sustainable system, growing every day and representing digital cinema at an international level.

An important institution that completes the overview of the digital system of cinema in Piemonte that works both with cinema and animation sector is the already mentioned **Virtual Reality & Multi Media Park.** This park, in fact, is equipped with avant-garde technologies for production

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<sup>&</sup>lt;sup>13</sup> For further information, see www.cineshow.it/

<sup>&</sup>lt;sup>14</sup> The start-up enterprise Microcinema was financed also thanks to the investment of Piemontech, the holding company of the Torino Wireless Cluster, that provides Venture Capital to the most promising Piedmont-based companies operating in the ICT sector. For further information, see <a href="https://www.piemontech.it">www.piemontech.it</a>.

and post-production of audiovisual products and for multimedia research and prototyping, with special focus on virtual reality applications. The park is involved in every project or cluster mentioned in this report: starting from the cluster of animation (described in the next paragraph) to the innovation pole that will be described in the following paragraph dedicated to regional policies and support measures.

#### **ANIMATION**

The presence of the VRMM it's important for the region, also if this structure in under a redefinition of his role. The Virtual Reality and Multi Media Park is a high tech facility located on the site of the former FERT film studios. It exists owing to the will and support of local and regional institutions (University and Polytechnic of Turin) and authorities in addition to the consistent financial aid from the European Union. The park works both, as an incubator, and a development lab, where the market's feasibility of applications and prototypes, based on state of the art technology, are tested and evaluated. A particular attention is turned to the increase of productive and entrepreneurial activities. As already mentioned talking about cinema, the Park develops collaboration with other research centres, institutions, universities and ventures with the objective to create a technological district in Piemonte. About one year ago, the Virtual Reality and Multi Media Park and a small but relevant group of digital animation enterprises in Piemonte, have organized themselves in a cluster, the so called **Torino Piemonte animation**<sup>15</sup>. The cluster aiming at promotes digital animation with local and European institution and, at the same time, with private banks and industrial associations. Promotion is addressed to the productive system at all level, from local to international and the main goal of the cluster is the internationalisation of Piemonte in digital animation. Support and promotion to digital animation will include events for young people, workshops and training sessions for professionals, with experts coming from all over the world. Among the already mentioned Virtual Reality and Multi Media Park, the cluster is composed by:

- o Lastrego & Testa Multimedia is an independent studio providing educational and entertaining material for children, families and teachers, animation series, books;
- Lumiq Studios is doing production, post production and 3d character animation production facilities;
- o Motus works in cinematographic and TV field and is particularly skilled in animated movies realized with any technique: 2D and 3D animation, special effects;
- o Lanterna Magica, one of on the most important European companies that produces and makes cartoon
- Enarmonia, a service company in the field of animation well-know all over the world for the high artistic quality of its products. A team of artists grown in the company and with the company works in Enarmonia steadily.

Those Italian firms have managed to make a name for themselves at an international level with original and innovative products of quality both in terms of drawing techniques and digital animation with original solutions.

#### DIGITAL TERRESTRIAN TELEVISION

The Piemonte has volunteered to lead the process of transition to digital terrestrial television in Italy by switching in advance: in fact, the national deadline for the switch is 2012, as the

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<sup>&</sup>lt;sup>15</sup> For further information, see www.tpanimation.com.

European Union has decided. Piemonte is the first large and densely populated region to face the switch process<sup>16</sup>, that is planned to be completed within 2009 in the two largest provinces (Torino and Cuneo) and within mid 2011 in all the regional territory. This strategic choice counts on the strong technologic potential of the Piedmont territory; moreover, it is consistent with the regional long term Information Society and digitalisation policy. This is why it has been considered as a relevant development opportunity, focused, for example, on the development of Rai research center and production center based in Torino.

#### 1.4.2 Fields of aspiration

Regione Piemonte aims to develop some competences within Creative Industries in line with the policies and actions undertaken to set up a cluster and technology platform for Creativity and Multimedia. Namely:

- ➤ Competences for enhancing the global innovation with reference to:
  - o The access of SMEs into a broad competences system and research communities (open innovation)
  - o The setting up of communities for integrated planning activities on specific technology issues (living labs)
  - o The protection and valorisation of IPRs, licensing etc ...
  - o Technology foresight, technological roadmapping for the exploitation of strategic and development opportunities
- Competences for knowledge transfer
- ➤ Competences to develop and implement some instruments such as business analysis, coaching for innovation, technical and economic feasibility studies, actions supporting the interaction between enterprises and research centres, and the inter-sector technology transfer
- Competences of communication and marketing
- > Competences for having access to EU funds
- > Competences for projects planning and management
- ➤ Competences for networking and clustering while developing collaborations among different actors (enterprises, enterprises and research centres, universities) at different levels (regional, national and trans-national)

#### 1.4.3 Future prospects

The future opportunities generated by the co-evolution of ICT innovations and of the conceptual models for the production and diffusion of creative contents are enormous and highly diversified. However, the birth and the subsequent trajectories of expansion of local clusters in the creative sectors are heavily dependent on the availability and characteristics of localized human capital, technical infrastructures and sectorial specialization of economic activities. Concerning Piemonte region, a simple analysis of the three latter element highlights a peculiar local environment characterized by:

- i) a strong entrepreneurial attitude as witnessed by the local large incidence of medium sized service and manufacturing firms;
- ii) the local presence of important training and research institutions in the filed of ICT, which in the past decades have mainly contributed to the development of ICT solution for the management of traditional productive firm (e.g. logistic and management software)

<sup>&</sup>lt;sup>16</sup> After Sardegna, Valle d'Aosta and Provincia di Trento.

and for telecommunication systems; iii) a worldwide acknowledge industrial design school.

Despite such competitive strengths, the current local development of the creative industries, as defined within the CReATE project, appears to be still rather limited and in general characterized by small scale ventures and few cases of excellence. Hence, the future of this broad field of economic activities will be function of the capability to foster the emergence of local markets that in the mid-run will provide to local existing firms and prospective startups the opportunity to reach a minimum dimensional threshold to expand operations also in international contexts. In this perspective, by a technological point of view, the specific features of the regional system suggest the presence of a suitable level of scientific and technical competences and related training facilities that can support local firms in keeping the pace with the shifts in the technological frontier, even if such firms are expected to operate mainly as adopters and customizes of new technological solutions. Hence, the success of prospective local creative clusters will be related to the effective establishment of cross border networks with other SMEs and research institutions that can provide complementary assets and skills.

Based on this premises, and on the evidence emerged from the focus groups with the regional stakeholders in the field of creative industries, the potential future prospects of the sector can be summarized along the following points:

- 1. Empowerment of a local cluster in the audiovisual field. The local presence of some cases of excellence in the specific subfield of animation, which may act as hubs towards international markets, represent an important perquisite for the development of the area. By a technological point of view the expansion of digital TV platforms and the introduction of 3D immersive visualization are likely to favor the increase of potential demand and generate market opportunities not only for incumbent companies but also for smaller entrant firms operating in specific technological / content niches. While the local audiovisual cluster is not expected to significantly contribute to technological breakthroughs in this area, its core value-creating activities will be related to the customization of ICT solutions so to improve the usability of locally developed contents. Hence, the key enabling factor appears to be the training of skilled technicians operating in the cluster, that are called to "internalized" new technologies and cowork with content developer.
- 2. <u>New design applications</u>. A whole new set of ICT innovations are likely to impact on the process of design and prototyping of innovative products, ranging from co-design to haptic computing. A distinctive characteristics of the value creation process in the regional economy can be exactly identified in the prominent role of design. In this perspective, the exploitation of ICT innovations might in principle have relevant impact across a large set of relatively more traditional sectors.
- 3. ICT, creative industries and cultural heritage: building a market. The meetings with the regional stakeholders have highlighted the local availability of an impressive amount of contents based on the public cultural heritage (work of arts, old films, monuments,...). The diffusion and promotion of such contents needs an important "creative" contribution and a contextual exploitation of the most recent innovations in the field of ICT. In this perspective, a qualified public procurement might foster the development of a local cluster oriented to the development of new technology-based solutions for the fruition of cultural contents. The acquisition and development of technical expertise and business knowledge fostered by the initial public procurement activity is expected to have a subsequent positive impact on the capability of local firms to design new products and solutions also for customers in the private sector.

#### 1.4.4 Regional policies and support measures

Before entering into details of the regional policies for the alignment of ICT-Research and CI, a brief introduction on the regional policies for research and innovation.

According to the Italian Constitution (art. 117) the State and the Regions have a concurrent legislative power on subjects related to the scientific and technological research as well as the support to innovation for the productive sectors.

Piemonte Region has exercised its legislative power in this specific area (scientific and technological research and support to innovation of productive sectors) while finalising a regional law (r.l. n. 4 dated 30 January 2006 entitled 'Regional system for research and innovation'). The regional law aims at promoting and supporting the overall <u>Regional Research System</u> including the research activities carried out within the universities, enterprises, and research centres both private and public.

In line with article 5 of the mentioned regional law the regional governing body adopted a 'Triennial research programme' as planning instrument of the regional policies for research and innovation of the Region.

The mentioned regional law, as well as the regional research programme, are in line with the national and EU policies for innovation and research, and the foreseen actions aim at benefiting from the different funding sources (EU, national and regional).

Actually, the Regional Operative Programme ERDF 2007-2013 for Regione Piemonte that is the main instrument regulating the use of ERDF in the region, outlines as priority 1 the 'Innovation and productive transition' with the aim at reinforcing the competitiveness of the regional system through the development of its capacity to produce research and innovation, to attract and transfer new technologies.

The most relevant and innovative aspects of the regional law n. 4/2006 are based *inter alias* on the following:

- For the first time the regional research system is recognised as active and responsible actor within the European Research Area with the aim to achieve the EU goals while using and benefiting from the territorial potentialities of the region
- The adoption of a unique, local and flexible planning framework with a clear definition of aims, strategic working areas, available funds and evaluation criteria for projects
- The focus on cooperation among the different actors involved in the field of research and innovation
- Setting up of a fund for research and innovation
- Special attention to monitoring and evaluation activities and results in order to be able to review and better finalise current and future research and innovation programmes

The triennial research programme has five priorities:

- Valorisation of human resources
- Development of productive structures
- o Knowledge creation
- o Exploitation of knowledge
- o Actions system

The main support instruments and schemes are:

- > Technology platforms
- > Innovation poles
- > Calls for projects
- > Voucher (funding for services towards SMEs)
- > Agreements for the valorisation of human resources

Agreements with different actors for the development of specific issues (e.g. renewable energies)

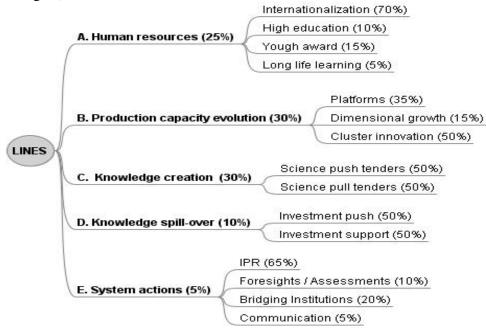


Figure 3. Regione Piemonte, Regional Operative Programme ERDF 2007-2013, action lines

According to the subject of the project Create we will focus mainly on the priorities related to the development of productive structures, and knowledge creation, and the support instruments/schemes such as the technology platforms, the innovation poles and the calls for projects.

These instruments are also foreseen in the framework of the Regional Operative Programme ERDF 2007-2013 for Regione Piemonte, priority 1 'Innovation and productive transition'.

#### 1 Technology platforms

The aim of the technology platforms, in line with the EU policies, is to encourage the partnership between the private and public sectors in specific technology areas. On the basis of this collaboration the Committees for the technology platforms define the <u>priorities for research</u> and <u>technology development</u> with a medium-long term perspective, and coordinate the promotion of investments in R&D at a national and European levels.

One of the technology platform identified by the general guidelines for implementing the regional law 4/2006 is for **creative industries and multimedia** <sup>17</sup>. Its setting up is in programme in 2009.

#### 2 Innovation poles

Regione Piemonte launched in September 2008 a call for the setting up 12 innovation poles within the Region. One innovation pole is specifically for **creativity and multimedia**, another one for **ICT**. The overall amount for the 12 innovation poles is of 60 M Euro for the period of 5 years.

The innovation poles are conceived as a significant group of enterprises – innovative start up, small-medium-large enterprises - as well as research institutes involved in a specific sector or

<sup>&</sup>lt;sup>17</sup> The technology platforms already set up are for the following areas: aerospace, intelligent and sustainable mobility and biotechnologies.

territorial area with the aim of supporting innovation through a sound interaction, a joint use of infrastructure and high added value services, the exchange of knowledge and experiences as well as an effective technology transfer, networking activities and the provision of information to the enterprises of the innovation poles.

The innovation poles are set up as coordination structure among the different actors of the process for innovation, and the provision of services and infrastructure.

The aims of the innovation poles are *inter alias*:

- To stimulate the request for innovation, while promoting the outlining of technological and strategic problems (logistical, planning and marketing ones) to be faced jointly
- To support the exchange of knowledge and the inter-sector technology transfer
- To foster the investments in research infrastructure
- To support the human resources mobilisation among the enterprises, or among the research system and the enterprises including the attraction of highly qualified human resources
- To enhance the participation of enterprises into the international research networks
- To support the access of enterprises, especially the small and medium ones, to the sources of scientific and technological knowledge
- To provide the innovation poles' enterprises with high added value services
- To support the access of innovation poles' enterprises to EU funds in the fields of R&D and innovation
- To receipt the training needs of enterprises with the aim to improve their technological and managerial competences
- To support the development of new entrepreneurship
- To foster the process of internationalization through promotion and marketing activities

The first phase of the valuation process of the candidacies submitted by the subjects as potential manager and coordinator of the innovation poles has been finalised. All candidacies (12) have been admitted to the second phase of the process which requires the submission of detailed work plans by the end of April 2009.

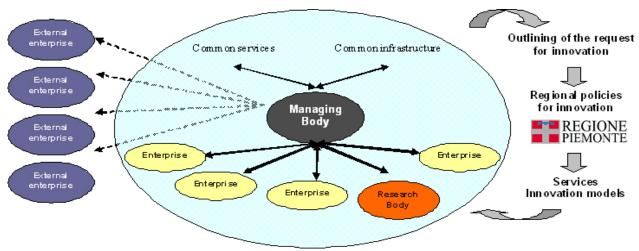


Figure 4. Regione Piemonte: the innovation pole structure

#### 3 Call for projects

The regional calls for the submission of research projects is the most consolidated instrument for supporting industrial activities in collaboration with research centres.

In the year 2008 the evaluation of the <u>Converging Technologies call</u> (30M€- projects size: 3M€ - 10M€) has been finalised, and a call for <u>Social and human sciences</u> (10M€) and two <u>calls for ICT</u> have been launched respectively in October and November 2008. Furthermore, a Strategic programme supporting the 'ICT district' has been approved at the end of November 2008.

In the framework of the call for <u>Converging Technology</u> 13 projects were approved, 3 of them <sup>18</sup> within the section for cognitive sciences and ICT. One of this project – ATLAS (7.095.674 €) – aims to exploit the convergence between cognitive sciences and ICT to build innovative services to provide deaf people with the access to broadcast communications, through the automatic translation of the Italian written language into the Italian animated Sign Language.

The call for research projects in the <u>Social and human sciences</u> area has 3 sections, one of them is specifically for 'identity, diversity, culture and <u>creativity</u>' (multiculturalism, linguistic, religious, cultural, artistic and creative interactions; new models of productions and fruition of information, art and culture).

Within each section of the call, 10% of the available funds is addressed to research projects carried out by research team composed by a percentage (2/3) of young people.

The total of project ideas submitted have been 79 of which 11 presented by young researchers (maximum 35 years old). The projects submitted under the section addressed to culture and creativity have been 26. The average cost of projects has been from 360.000 to 1.200.000 euro, and for the projects submitted by young researchers between 60.000-240.000 euro.

As mentioned before, Regione Piemonte launched <u>two calls in the field of ICT</u> (25 M $\oplus$ ) at the end of November 2008. Both calls are addressed to SMEs. The first call (15 M $\oplus$ ) is supporting projects for the creation of innovative IT, computer based services, and for testing highly innovative solutions in terms of innovative processes, projects, new services etc.... Among the beneficiaries of the call are present the SMEs of some CI (e.g. editing, media, movies, video games, internet, etc...).

The other ICT call (10 M $\oplus$ ) if for the adoption of information and communication technologies. Among the beneficiaries also some SMEs of the CI (e.g. editing, media, etc..).

More than 1.000 project ideas haven been submitted with an indicative corresponding amount of 200 M euro.

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<sup>&</sup>lt;sup>18</sup> ICT4LAW (ICT Converging on law); <u>ATLAS (Automatic Translation into sign LanguageS)</u> and PIEMONTE (People Interaction with Enhanced-Multimodal Objects for a new Territory Experience).

# Projects submitted Total amount 214 M di euro

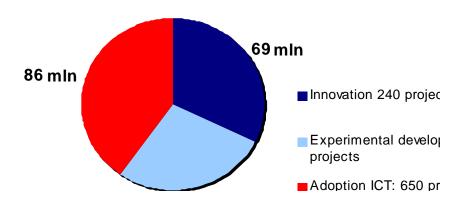


Figure 5. Regione Piemonte: submitted proposal to 2008 ICT calls

Under the first call (25 M € – Creation of innovative IT, computer based services) we have received 375 project ideas in 5 thematic areas:

- o creation of products and services based on the 'Software as a Service' model (SaaS) 223 project ideas
- o creation and exploitation of 3D environment (simulation for prevention and management of accidents, pathologies or disabilities) 16 project ideas
- o creation of solutions and services based on the internet with the aim to improve the environment, eco-sustainable solutions (Green web) 33 project ideas
- o creation of software for videogames for training and information 18 project ideas
- o development and distribution of new contents on digital networks 85 project ideas

Under the second call (10 M€- Adoption of information and communication technologies) we received 652 project ideas with a high interest to use and exploit innovative ICT solutions with a special attention to SaaS model, WEB 2.0, free open source etc ...

The strategic programme for the 'ICT district', approved at the end of November 2008 (10 M€ for the period 2009-2013), includes the following activities towards the enterprises of the district: reinforcement of the regional district, setting-up and development of collaborations among enterprises in the ICT area, support to the seed capital policies for ICT, actions for cross-fertilization planning in ICT area, thematic calls, and coaching activities for the development of innovation.

Furthermore, Regione Piemonte is supporting a research Centre (NEXA) of the Polytechnic of Turin. NEXA<sup>19</sup> is a study and competence centre on Internet and digital technologies that supports the development of regional strategies in the field of public sector information and digital archives.

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<sup>&</sup>lt;sup>19</sup> Among the projects carried out by NEXA there is the EC project Communia on public domain and related issues.

## 1.5 Strengths, Weaknesses, Opportunities and Challenges (Threats)

	Positive Factors	Negative Factors
Internal Factors	<ul> <li>A wide and rich support from public policy, both for research and enterprises.</li> <li>A creative/intangible field and an increased regional focus on supporting creative and cultural production/offer.</li> <li>Already mentioned field of excellence, and, in particular:</li> <li>The presence of a structure such the Virtual Reality &amp; Multi Media Park, equipped with avant-garde technologies for production and post-production of audiovisual products and for multimedia research and prototyping.</li> <li>The presence of institution like Film Commission working in synergy with the other institution of the territory developing a system of cinema in Piemonte</li> <li>A wider range of education opportunities</li> <li>The presence of Torino Piemonte Animation cluster</li> <li>Pilot Region in Italy for DTTV</li> </ul>	<ul> <li>WEAKNESSES</li> <li>Young creative like deep web: it's important to make them visible to the market</li> <li>Small awareness from enterprises of what technologic and ICT research is and can provide to them.</li> <li>Intellectual property is a big issue: different legal framework in each country are a barrier to access global market.</li> <li>Generally perceived that many policy actions have worked on the supply side of technology and this is the time to move focus of policy on demand side of ICT, promoting aware and qualified adoption.</li> </ul>
External Factors	<ul> <li>OPPORTUNITIES</li> <li>Shift from industrial to post-industrial and a structural change toward services.</li> <li>Technological changes in the distribution systems (e.g. different digital TV platforms) will enhance potential market demand also for entrant smaller firms</li> <li>ICT allows to think to the product in a new</li> </ul>	<ul> <li>CHALLENGES (THREATS)</li> <li>Face the need of promotion of competencies and entrepreneurship in the field of creativity (considering specific features of entrepreneurship in this field).</li> <li>Emerging need is life-long training, career development and refresher courses for professionals, artists and technicians</li> </ul>
	way: new business model has to be explored	already employed Financial crisis



# 2. Regional Research Priority Areas in the field of ICT for Creative Industries

This part of the report was made matching the stakeholder map with the result of two stakeholder workshops<sup>20</sup>.

## 2.1 Main trends and drivers of future development, potentially influencial than Industries



#### **Social trends**

In the last years, Piemonte economy is facing a shift from industrial to post-industrial and a structural change toward services. At the same time, there is a lively creative/intangible field and an increased regional focus on supporting creative and cultural production/offer<sup>21</sup>.

In 2006, the winter Olympic game was held in Piemonte and this was a great opportunity for the city and the system of creative industries as well, to become more visible. Piemonte region appear to be a favourable environment for creative industries.

In 2008 Turin is the first World Design Capital.

The IYA<sup>22</sup> International Year of Astronomy<sup>23</sup> will be celebrated in Turin in 2009.In 2010 Turin will host Esof<sup>24</sup>, the Euroscience Open Forum and will be the European Youth Capital<sup>25</sup>. In 2011 Turin celebrates Italy's 150th anniversary as its first capital<sup>26</sup>.

- choice of main stakeholders from the full list, according to priority criteria suggested by the policy maker;
- choice of the focus group technique to manage workshops and stimulate participants:
- CREATE partners have briefed the focus group mediator through the project outputs (background paper) and the CREATE scheme;
- draft of a list of (open) questions. The scheme was circulated among participant by enclosing it to the invitation;
- realization of the 2 workshops. Audio and video were recorded;
- reporting to CREATE partner;
- reporting to participants (to be organized);

Participants come from several sectors and fields:

- Cultural institutions: national library, national museum of cinema
- University and research centres: University of Turin, Polytechnic of Turin, ISMB
- SMEs and SME associations and networks representative of creative industries
- Intermediaries: enterprise incubator, technological park, film commission

<sup>&</sup>lt;sup>20</sup> Stakeholder workshops in Piedmont took place in March 2009, on the 6 and the 13<sup>th</sup>. The process can be synthesized as follows:

<sup>&</sup>lt;sup>21</sup> The relevance of the social context is well explained in this quotation from the website European journal of geography: "Local environments play a determinant role as innovation incubators, they act like a prism through which innovations are catalysed and which give the area its particular complexion. A firm is not an isolated innovator, it is part of an area which makes it act and react. The history of an area, it's organisation, it's collective behaviour and it's internal structure of unanimity are the principal components of innovation". This hypothesis justify an analysis which goes beyond the permissive conditions which enhance the creation and establishment in a particular locality of innovative firm. Moreover, "Behaviour inciting Innovation are not found at the national level but are dependant on factors defined at the local or regional level" AYDALOT Ph. (ed.), 1986, "Milieux innovateurs en Europe", Paris, GREMI, C3E. http://www.cybergeo.eu/index349.html

<sup>&</sup>lt;sup>22</sup>The International Year of Astronomy 2009 is a global effort initiated by the International Astronomical Union and UNESCO to help the citizens of the world rediscover their place in the Universe through the day- and night-time sky, and thereby engage a personal sense of wonder and discovery. More information availble on the website: http://www.astronomy2009.org/.

<sup>&</sup>lt;sup>23</sup>The International Year of Astronomy 2009 is a global effort initiated by the International Astronomical Union and UNESCO to help the citizens of the world rediscover their place in the Universe through the day- and night-

The relevant presence of such cultural/art/creative initiatives and different historical reason (Italian cinema and numerous art movement were born here in Piemonte as well as the historical presence of graphic, advertising and fashion designers) allows to talk about Piemonte as a Creative region.

#### **Technological trends**

Concerning the impact of technological innovation, there is in general a relatively reduced awareness of the most relevant current technological trajectories in ICT research.

Intellectual property is felt as a very relevant issue: different legal framework for each country are a barrier to access global market. How to protect the creative idea, the creative project, mostly in cartoon field? In particular, different entrepreneurs have stressed how the access to intellectual property rights that protects the contents potentially exploitable can represent a relevant barrier. The management of IPRs requires expert consultancy in the legal filed that can be to expensive for smaller ventures.

#### **Economic trends**

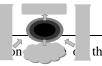
As underlined in a recent research of CNA and Chamber of Commerce of Turin<sup>27</sup>, in Piemonte there are many creative industries on the territory, in particular in Turin and in the surrounding, very small but very active in this sector. They work mostly for the public sector or for big private enterprises, not only Italian. Most of them are young enterprise, leaded by young people, working mainly in the Region but, as already mentioned, it's impossible to define them as local enterprises because there are many excellence working for relevant foreign customers. The landscape of this enterprises is various, complex and not easy to define. In those enterprise is also difficult to split the creative side of the product and of the enterprise fro the ICT side, because this two elements often goes together.

Most the SMEs adopt business models based on the exploitation (or at best a customisation) of externally acquired technologies, while internal product development activities essentially involve the "creative" component of the process. In this respect, the SMEs have highlighted the need of forms of public interventions aiming at improving their knowledge of the technological frontier by means of networking, hi-level training and technology transfer. Moreover, most SMEs think it is enough and more practical taking innovation from market, adopting solutions and products that are already present on the global market. In other terms, it seems that innovation is business-driven or public funding-driven, but not research driven.

#### **Environmental trends**

The Regional Government is doing a massive investment in energy saving and is working as well to a big programme, the so called Wi-Pie Programme<sup>28</sup> for overcoming digital divide. All this initiatives are coordinated in the Regione and work in synergy. This initiatives will probably impact on the use of ICT and on the development of creative industries, in a sense of increasing and improving of the sector, and viceversa.

time sky, and thereby engage a personal sense of wonder and discovery. More information website: http://www.astronomy2009.org/.



24 Euroscience was founded in 1997 in order to provide an open forum for debate on science and technology in Europe, strengthen the links between science and society, contribute to the creation of an integrated space for science and technology in Europe, Influence science and technology policies. Form more information visit the web site: http://www.euroscience.org/

<sup>&</sup>lt;sup>25</sup> Form more information visit the web site: http://www.pyoulife.com

<sup>&</sup>lt;sup>26</sup> For further information visit the website: http://www.italia150.it

<sup>&</sup>lt;sup>27</sup> "Creative Economy a Turin, I nuovi artigiani che fanno impresa nella cultura, nei nuovi media e nell'entertainment", CNA - Associazione Provinciale di Turin, available online in Italian at <a href="http://images.to.camcom.it/f/Studi/Re/Reportcreativi180906.pdf">http://images.to.camcom.it/f/Studi/Re/Reportcreativi180906.pdf</a>

## 2.2 Tangible and promising application areas (derived from the most relevant trends and drivers)

#### Market perspectives

There are a heterogeneity of business models, and related critical issues, of the firms operating in different technological domains of the creative industries. Policies should consider this and avoid the definition of interventions based on a uniform common view of the economic dynamics taking place in these fields. Many policy actions have worked on the supply side of technology and this is the time to move the focus of policy more on the demand side.

It's important to underline the need for qualification and alphabetization of demand as a need, both on the public and on the private side:

- 1) Attention to the role of public institutions as very important on the demand side of the market: the public should be a more aware and alphabetized purchaser, buyer, customer, and express a qualified and innovative demand trough focused public procurement. This would speed the market. In this perspective, companies stress that a qualified form of public procurement in the filed of creative industries might contribute to the creation and development of a local still underdeveloped market. The public procurement might allow the development of internal expertise that is necessary to tackle prospective customers (large companies).
- 2) Other sector and traditional enterprise could benefit from the contribution that creative enterprise can give, in terms of promotion, adv, and generally speaking, of adding knowledge value to products

#### **Business Models (Product services)**

As a potential for development, ICT allows to think to the product in a new way: new business models have to be explored taking in consideration UGC -user generated content-, delocalization and open source models as well.

#### Innovation and value creation process

- The are some crucial sector of development for creative industries and ICT not enough explored yet: cultural sector is the most relevant and the tourism sector as well.
- The role of "entrepreneur" in classical terms (as from literature) must be explored. This could be interpreted as the need for promoting competencies and entrepreneurship in the field of creativity (considering specific features of entrepreneurship in this field).

#### Requirement with regards to human resources

Education and training are other issues to be taken into in account: in Piemonte, offer is too wide for Piemonte market; could be useful to think to ad European school for creative industries. Moreover, an emerging need is life-long training, career development and refresher courses for professionals, artists and technicians already employed.

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<sup>&</sup>lt;sup>28</sup> For further information http://www.wi-pie.org/

### 2.2 Piemonte regional research priority areas

The Piemonte regional research priority areas are synthesised in the following Regional Matrix<sup>29</sup>

relation to							Need for		specific
Research Priority Area	application areas (derived from global trends & drivers)	global trends & drivers	regional CI's needs & potential	regional ICT-RTDI capacities	regional policies	Relevance for the region	external partners?  please specify	Time- horizon <sup>30</sup>	regional stakeholders interested in
Animation	- digital animation movies - advertising - educational sector	New software for 3D models and animation	Presence of a small but growing animation district	Good local development of training institutions in the filed of visual animation Engineering school for Cinema; School of animation	Establish ment of a creativity and multimedi a innovation cluster through of a specific forthcomi ng policy measure	High	The nature of the this market requires international collaborations	Medium term	Firms: Enarmonia Lanterna Magica Lastrego ad Testa Associations: Piemonte Animation cluster

Table 2. Piemonte Regional Matrix, part 1

The specific colours of the columns to refer to the CReATE model

Time horizon is ad follows: short term: < 2 years; medium term: 2-5 years; long term: > 5 years

Digital post- production technolnologies	- digital television - cinema	- Development of new interactive platforms exploiting digital distribution channels	- Local availability of technological infrastructures for digital post- production  - Wi-Pie program  - Piemonte is the leading Italian region for the introduction of digital terrestrial TV	Local cluster of service companies and post-production companies for the cinema and TV industry  Good local development of training institutions in the filed of visual animation  Engineering school for Cinema; School of	Funding for the infrastruct ure of post-production facilities  Regional investment fund for film production	High	In this case the collaboratio n is mainly required for the distribution of contents	Short term	Virtual Reality Multimedia Park  Piemonte Film Commision  Cineporto  SMEs operating in the field  Politecnico di Torino (Engineering school for Cinema)
Gaming	<ul><li>development of parts of games</li><li>serious games for educational purposes</li></ul>	- Interoperability across different platforms	Presence of a small but growing network of SMEs in the field	Established software local engineering school	Call for research projects in the filed of ICT (including gaming)	Medium	Yes, the value chain of the sector is defined at international level. Local actors can only contribute on small scale projects	Medium term	Associations: Top-ix

Table 3. Piemonte Regional Matrix, part 2

Visual interactive experience	- simulations for industrial applications (aerospace, healthcare) Design and prototyping - 3D-Internet applications - Tourism and cultural heritage - digitalization of cultural contents	- New tools for rapid prototyping and simulated design  - New solutions for the promotion of cultural contents (museums, exhibitions., etc.)	Presence of large companies already using visual interactive experience technologies (e.g. Alenia Aerospace)  Local availability of an impressive amount of cultural contents (films, old books)	Excellence schools and research centres in the field of industrial design (IED and FIAT design center)	Call for research projects in the field of convergin g technologi es (cognitive sciences and ICT)	Very High	Not relevant		Virtual Reality Multimedia Park  Local Large Industrial companies  National Museum of Cinema  RAI (National Italian Broadcaster) archives
Intellectual property Management	<ul> <li>Distribution of creative digital contents.</li> <li>IP and users' interactions and exchange of digital contents</li> </ul>	development of new technological solutions for digital rights management  Increasing need of cross-platform distribution of the same creative contents.	Presence if academic research centres specialised in the filed		General policies for IP awareness in traditional sectors	Medium	Not required	Medium term	Politecnico di Torino  NEXA research centre  Creative Commons Italia

Table 4. Piemonte Regional Matrix, part 3

#### Annex 1

Numbers of firms, employees and turnover. Data retrieved from:

- 1. AIDA: database that contains financial, personal and commercial information on over 950.000 italian companies. Website <a href="http://www.bvdep.com/en/AIDA.html">http://www.bvdep.com/en/AIDA.html</a> or <a href="http://www.aida.bvdep.com/ip/">http://www.aida.bvdep.com/ip/</a>
- 2. Report: "Relazione annuale 2007", Osservatorio Culturale del Piemonte, available online at http://www.ocp.Piedmont.it/PDF/relazione/relaz\_2007.pdf
- 3. Report: "Creative Economy a Turin, I nuovi artigiani che fanno impresa nella cultura, nei nuovi media e nell'entertainment", CNA Associazione Provinciale di Turin, available online at http://images.to.camcom.it/f/Studi/Re/Reportcreativi180906.pdf
- 4. Report: "Il cinema d'animazione in Piemonte, Industria, Formazione, Cultura"

Number of students graduating p.a. (BA, MA, PHD) in Creative Industries and ICT – fields

- 5. Number of graduates (BA, MA) for class and degree course, retrieved from the MUR's site (Ministry of University and Research) http://statistica.miur.it/scripts/IU/vIU0.asp
- 6. Data post-degree (phd and master) retrieved from the MUR's site <a href="http://statistica.miur.it/scripts/postlaurea/vpostlaurea.asp">http://statistica.miur.it/scripts/postlaurea/vpostlaurea.asp</a>
- 7. Numbers of graduates in Academies of Fine Arts and Conservatories, retrieved from database of the High Artistic and Musical Education, retrieved from the MUR's site <a href="http://statistica.miur.it/scripts/AFAM/vAFAM1.asp">http://statistica.miur.it/scripts/AFAM/vAFAM1.asp</a>

Number of educational training institutions in creative industries. Data retrieved from:

- 8. MIUR's site <a href="http://statistica.miur.it">http://statistica.miur.it</a>
- 9. Report: "Creative Economy a Turin, I nuovi artigiani che fanno impresa nella cultura, nei nuovi media e nell'entertainment", CNA Associazione Provinciale di Turin, available online at <a href="http://images.to.camcom.it/f/Studi/Re/Reportcreativi180906.pdf">http://images.to.camcom.it/f/Studi/Re/Reportcreativi180906.pdf</a>

Number of research institute/labs (incl. Research groups at universities) in ICT- fields and Number of educational training institutions in ICT:

- 10. Publication: "Information Communication Technology in Turin Piemonte", ITP (Invest in Turin Piemonte) available online at <a href="http://www.centroestero.org/invest/repository/31\_07\_2008\_18\_11\_leafletictinvestinTurinPiedmont.pdf">http://www.centroestero.org/invest/repository/31\_07\_2008\_18\_11\_leafletictinvestinTurinPiedmont.pdf</a>
- 11. Publication: "Turin and Piedmont, At the centre of European development In the heart of North West", ITP (Invest in Turin Piedmont) available online at <a href="www.itp-agency.org/public/leaflet\_ICT.pdf">www.itp-agency.org/public/leaflet\_ICT.pdf</a>

**Annex 2**List of training institutions and research institutes in Piemonte and related web sites:

Educational training institutions in creative industries	Website
Politecnico di Turin	http://www.polito.it
Università di Turin	http://www.unito.it
Accademia di belle Arti legalmente riconosciuta di Cuneo	http://www.accademiabellearticuneo.it/
Accademia Albertina delle Belle Arti di Turin	http://www.accademialbertina.Turin.it/
Conservatorio Statale di Musica "Antonio Vivaldi"	http://www.conservatoriovivaldi.it
(Alessandria)  Conservatorio Statale di Musica "G. F. Ghedini" (Cuneo)	http://www.conservatoriocuneo.it/
Conservatorio Statale di Musica "G. Verdi" (Turin)	http://www.conservatorioTurin.eu/
Accademia Musicale Ars Nova	http://accademiaarsnova.com/
Istituto Superiore di Studi Musicali "Guido Cantelli" di Novara	http://www.conservatorionovara.it
Accademia di musica – Pinerolo	http://www.accademiadimusica.it/
L'Istituto Professionale per la Comunicazione Audiovisiva "Fellini" - Turin	http://www.istitutofellini.it/chisiamo.html
Antenna Media Turin	http://www.antennamediaTurin.eu/corsi.aspx
Virtual Reality & Multi Media Park	http://www.edu.vrmmp.it/
Scuola Holden - Corsi di Cinema e Scrittura	http://www.scuolaholden.it/
Scuola di Alta Specializzazione nelle Arti e nei Mestieri dell'Animazione di Chieri	http://www.snc.it/context.jsp?ID_LINK=23&area=
IED - Istituto Europeo di Design (sede di Turin)	http://www.ied.it/Network/Turin/
Interaction Design Institute - Ivrea	http://www.domusacademy.it/
Ial Piedmont	http://www.ialpiemonte.it/home.asp
Istituto d'Arte Applicata e Design - Turin	http://www.iaad.it/ita/index it.html
Accademia dello spettacolo - Turin	http://www.accademiadellospettacolo.it/
Maigret & Magritte Scuola di teatro e Altro	http://www.maigret-e-magritte.it/
Immaginazione e lavoro	http://www.immaginazioneelavoro.it/
Educational training institutions in ICT	Website
Politecnico di Turin	http://www.polito.it
Università di Turin	http://www.unito.it
Università degli studi del Piemonte orientale "A. Avogadro" - Vercelli	http://www.unipmn.it/default.aspx
Research institutes/labs in ICT - fields	Website
Turin Wireless	http://www.turinwireless.it
DTTLab Digital Terrestrial Television Laboratory	http://www.dttlab.it/
CSI-Piemonte (Consortium for the Information System)	http://www.csi.it
CSP Innovation in ICT	http://www.csp.it/it
The Rai Research & Technology Innovation Centre	http://www.crit.rai.it/
Environment Park	http://www.envipark.com/
The Science Technology and Telecommunication Park in Valle Scrivia-PST	http://www.pst.it
Centro Ricerche Fiat	http://www.crf.it/
Microsoft Innovation Center of Turin	http://www.microsoft.com/italy
National Institute of Metrological Research-INRIM	http://www.inrim.it

Institute of Electronics and Computer and Communication Engineering of the Italian National Research Council	http://www.ieiit.cnr.it/
Motorola Electronics	http://www.motorola.it
Thales Alenia Space	http://www.thalesgroup.com/space
Ismb - Istituto Superiore Mario Boella	http://www.ismb.it/
TILab	http://www.telecomitalia.com
The Virtual Reality & Multi Media Park	http://www.vrmmp.it
ILO Piemonte-Industrial Liaison Office	http://www.iloPiemonte.it