

Thematic Working Group Report

Education, Research and Industry Relations



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1 Introduction

The present report sums up the outputs of the work carried out by the working group on "Education, Research and Industry Relations" established within the project "Creative Growth". The working group, that has gathered 15 experts from most partner regions in the project, has worked between December 2009 and September 2010 through meetings and research activity.

This working group was established to explore and exchange methods and experience on the establishment of relationships between education, research and enterprises with a particular focus on the creative sector.

There are several rationales for setting a thematic working group on this specific topic:

- To favour the commercial exploitation of research outputs and competences represents one of the main objectives of current industrial policies at all levels to ensure innovation growth and wealth creation;
- Creative industries are intensive producers and users of knowledge and technology therefore these industries may highly benefit from interactions with the research and education base;
- Experiences in linking education, research and enterprises in creative industries have not often been explored in previous studies, whereas many studies have been carried out in other sectors such as ICT.

The group has concentrated activities on:

- Definition of what science-industry relationships may mean
- Exploration of policies to favour science-industry relations
- Showcasing experiences available in the Creative Growth partner regions and countries
- Identification of how those experiences work in practice, and how they may contribute to business start-up and growth.

2 Definition of the theme

2.1 General definition

Favouring the interaction between education, research and industry is linked to the issue of favouring knowledge transfer among those actors, a main issue to develop innovation and favour economic development.

In order to have a complete overview of what relation may be developed to favour knowledge transfer, it is necessary to answer to the following questions:

- What form of knowledge? There may be 3 main types of knowledge: (1) codified knowledge (expressed through codified language such as scientific publications or patents), (2) internalised by people who have acquire knowledge through their education background or experience (staff exchange or student placements), (3) embedded in artefacts (technological products, software, creative goods).
- Who are the actors involved¹? There are 3 main groups of organisations involved in the process: enterprises (with differences in terms of size, subsector etc.), research and education institutions and policy makers (including institutions and intermediaries).

¹ EC (2009), Metrics for Knowledge Transfer from Public Research Organisations in Europe

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- Consumers of creative goods are an additional group of interest.
 - What interactions? There are many possible interactions among those actors (staff exchange, enterprise creation, service centres, etc.) and it is important to note that in line with the modern view on innovation, interaction benefit all parts through an interactive learning process.
 - What benefits? Research and education organisations may benefit from an interaction with industry in terms of additional revenue sources, prestige, an improvement in management skills, technical skills gained through working with the industry and better understanding of industry needs. Industry may benefit of higher revenues, prestige, new products on the market and improved services, new distribution channels, better education. Policy makers may benefit of an impact on local development in terms of wealth creation and employment generation.

2.2 Specific sub-themes

There are different Education-Research-Enterprise relations summarised as:

- Life-long education and training of professionals
- Collaborative research activities
- Staff exchanges
- Technology transfer (patenting and licensing)
- Academic spin-off companies
- Networking
- Placement of students in enterprises

2.3 Importance of the theme for the creative sector

Linking research and education with companies is important for several reasons:

- Due to the recent changes in the market for creative products, linking education, research and industry through all phases of the market chain (production to retail) is a key issue.
An interesting example of how technology research may help creative companies to maintain or develop their position on the market has been given by the CREaTE project² that has identified the following priority fields for carrying out research activities in ICT applied to the creative sector:
 - 1) developing intelligent and efficient processes of products and service generation
 - 2) establishing new distribution channels and business models
 - 3) providing the "right" framework conditions: mobile and networking technologies improve access to creative products and also enable to personalise services.
 - 4) creating collaborative production and testing environment: companies and research organization may participate in the innovation process and in the testing phases directly or through involvement of third parties (e.g. their customers).
- Research and Education organizations will also be helpful for companies to develop management tools and competences.

² CREaTE (2010), "Joint Research Agenda for ICT Innovations in Creative Industries" (available in the project website: <http://www.lets-create.eu/>)

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- Enterprises in the creative sector are mostly small sized and thus have a limited capacity to carry on research activities on their own. They may however highly increase their capacity to innovate through accessing knowledge and competencies.

3 Thematic Working group

3.1 Objectives of the TWG

The Thematic Working Group was established with the following main objectives:

- Identify policy recommendations to develop education, research and industry relations for the development of creative industries and for the diffusion of “creative competences”.
- Select case studies from the Creative Growth regions, analyse working mechanisms and peculiarities.
- Improve knowledge on the theme in partner regions.
- Identify particularities for education-research-industry relations in the creative industry.
- Involve regional actors.

3.2 Work process

The working group on Education, Science and Industry has carried out activity through the following process:

- Selection of group members made in each partner region by the project partners among experts and groups of interest.
- Organisation of three meetings in which the following activities were achieved :
 - Meeting 1:
 - organised in Brussels on 2nd and 3rd December 2009
 - objectives: delimitate the theme, starting to know each other, create consensus
 - main activities: joint definition of the theme, examples from Emilia-Romagna, planning activities
 - Meeting 2:
 - organised in Oviedo on 9th March 2010
 - objectives: analysis of regional profiles, identification of possible good practices
 - main activities: analysis of regional profiles in terms of creative companies characteristics (size, sub-sectors, relationships), research in the field, supporting organisations, proposed good practices; discussion; planning activities.
 - Meeting 3:
 - organised in Vejle on 22nd and 23rd June 2010
 - objectives: analyse relationship peculiarities in the creative sector, identify possible policy gaps, analyse good practices.

- main activities: SWOT analysis, mapping of good practices and relationships, planning activities for TWG deliverables achievements.
- Feedback and research activity carried out in each region between each meeting to carry out the following:
 - Identify various actors, initiatives, policies available in each region to support Education, Research and Industry relations in the creative sector.
 - Identification of potential good practices and preparation of an in depth questionnaire for each good practice identified.
 - Collaboration with local partners for TWG meetings outputs feedbacks and research activity.

3.3 TWG members

There are 15 experts who have directly contributed to TWG outputs representing 7 different regions. The experts, appointed by partner organisations, have participated in at least 1 meeting. As regards competences, experts have complementary profiles: “creative experience”, “science and industry relationships facilitation” and “policy design and implementation”.

Region	Organisation	Name of the expert	Short profile
Emilia-Romagna (Italy)	Aster	Valeria Bandini (TWG moderator)	Area manager in Aster, Valeria Bandini has a wide experience on the theme “Science and Industry relations” as regards the development of strategies, development of projects and initiatives and management of programmes to support science and industry interactions.
	Aster	Lucie Sanchez (TWG coordinator)	Expert in enterprise creation, Lucie Sanchez has a wide experience in supporting new entrepreneurs and defining and implementing business support initiatives and well as implementing initiatives to favour industry-research collaboration.
Asturias (Spain)	CEEI	Patricia Martin Velasco	Project manager in CEEI Asturias where Patricia Martin supports new businesses.
	IDEPA	Antonio Fernandez	Expert in enterprise support at IDEPA-Economic Development Agency of the Principality of Asturias.
	IDEPA	Yolanda Castellano González	EU advisor
Észak-Alföldi (Hungary)	Észak-Alföldi Regional Dev. Agency	Gergely Katona	Project manager at Tourism Department

Region	Organisation	Name of the expert	Short profile
Kaunas County (Lithuania)	Vytautas Magnus University	Gintautas Mazeikis	Philosopher, professor and head of the Department of Social and Political Theory at Vytautas Magnus University in Kaunas and Director of the Centre for Cultural Anthropology. Gintautas Mazeikis has carried out research activities on creative industries analyzing forms of art, art criticism and crossroads of web projects.
	Kaunas County Governor's Administration	Zivile Genyte	Communication expert at the department in the Kaunas County Governor's Administration.
Östergötland (Sweden)	Linköping University	Kenneth Bringzén	Professional designer, consultant for several companies in different areas (furniture and interior design, communication tools, preventive medicine products) and senior lecturer in design and product development at University of Linköping.
Scotland (UK)	Edinburgh Napier University	Stephanie Koenen	EU project consultant to School of Arts and Creative Industries, wide range of experience in small business creation and start-up support, cultural industries and regional development.
South Denmark (Denmark)	South Denmark European Office	Marlene Lindholm	Project Manager at SDEO. Marlene Lindholm has developed and managed a number of EU-funded projects within areas such as regional development, entrepreneurship and creative economy. For two years she was responsible for the development of projects and activities specifically within the field of experience economy and experience-based business development.
	South Denmark European Office	Ghita Wolf Andreasen	Director of South Denmark Office in Brussels.
Southern Småland (Sweden)	Regional Council of Southern Småland	Sunny Sandstrom	Manager in the Culture Department.
	Regional Council of Southern Småland	Carin Karlsson	Process manager of Delta Garden – History mapping – cooperation in the creative sector
	Möbelriket	Anders Wisth	Coordinator of Möbelriket AB (the furniture kingdom), an association set in 1990s to support the development of a furniture in Småland grouping 35 companies (furniture and design retailers) and two municipalities.

Table 1 - List of TWG contributors

4 SWOT analysis

TWG members have jointly carried out a joint SWOT analysis on Education, Research and Industry relations. Due to the variety of actors involved in those relations, it was decided to consider 3 different points of view: research (grouping research and higher education institutions), industry (companies in the creative industry, all business sizes are considered) and policy makers (institutions and intermediary organisations such as for instance development agencies).

The results of this joint exercise was afterwards integrated and validated through the involvement of local partners in each region.

Here are the main outputs of the SWOT exercise:

- Industry: businesses in the creative industry are well rooted with their environment, have a good ability to network and collaborate, they are also extremely flexible and have a good innovation capacity. However, most businesses are small sized which makes collaboration with the research sector difficult due to several reasons (the lack of resources, the difficulty to absorb knowledge, work on a project development basis and therefore companies do not often develop a sound long term strategy). There are new opportunities for creative companies thanks to the development of new technologies, novel networking opportunities and the opening of new markets locally and abroad. There is however a lot to do for companies to identify the right partners in the research organizations, protect IP outputs, capitalize on the results of science-industry cooperation.
- Education and Research: strong connections with industry sector via personal relations, experience and existing structures for knowledge-transfer in other sectors and increasing interest for research in the creative sector in all fields are the main strenghts. However, researchers have difficulties to understand industry needs, they struggle to communicate their competences, organizations have low resources and adequate personnel to work with businesses and there is no systematic approach to work with the creative industry. Collaboration with industry may increase their reputation and attractiveness of students and may open new research areas.
- Policy Makers and Intermediaries: there is a high interest in favouring "creativity" as a source for innovation and enterprise development. However, programmes to support innovation are mainly focused on SMEs whereas most creative businesses are sole traders or free lancers limiting companies access for support, there is a limited number of support organisations targeting creative companies.

Strengths	Weaknesses
<p><u>Industry</u></p> <ul style="list-style-type: none"> - Large sector in terms of number of companies and employment (networking opportunities) - Well rooted in their territory and connected with local actors - Products are easily accessible by the public (high visibility) - Core creative competencies potentially applicable to different sub-sectors - Strong commitment and identification with their activity - Ability to network and collaborate - Adaptability to changes due to (small) company size - Innovative (in terms of products) <p><u>Research and Education</u></p> <ul style="list-style-type: none"> - Strong connections with industry sector via personal relations - Experience and existing structures for knowledge transfer in other sectors - Capacity to access to additional financial resources for research activities - Increasing interest for research in the creative sector in all fields (technologies, marketing, ...) - Developing new methods for teaching creativity <p><u>Policy makers and intermediaries</u></p> <ul style="list-style-type: none"> - Interest in favouring "creativity" as a source for innovation and enterprise development - Willingness to support the creative industry development: included in the political agenda and with economical resources devoted to the sector 	<p><u>Industry</u></p> <ul style="list-style-type: none"> - Lack of resources for research activities especially because of the enterprise small dimension - 'Cultural' barriers (academia vs businesses) and misperception of role and added value of education/research for creative business - Difficulties to absorb knowledge from education/research - Difficulty to find "employable" qualified personnel - Absence of a long term business strategy due to short term projects focus - Difficulty to identify support opportunities <p><u>Research and Education</u></p> <ul style="list-style-type: none"> - Difficulties to understand industry needs - Administrative procedures - Time span to implement new structures - Slowness of research/education actors in comparison with markets - No systematic approach to work with the creative industry - Difficulties to communicate their competences towards industry base - Low interest for industrial collaboration due to the curriculum evaluation principles - Lack of sufficient resources and adequate personnel (few perspective /"business" competence) <p><u>Policy makers and intermediaries</u></p> <ul style="list-style-type: none"> - Difficulty to define and delimit the "creative sector" - Programmes are focused on SMEs whereas high shares of the creative sectors are sole traders or free lancers - Different perceptions of how to promote creativity (human/organisational skills/capacity) and creative industry (economic activity) - Many actors involved: creative industry is of interest for different types of policy makers i.e. industry department, culture department, tourism departments with different targets, approaches, ... - Absence of a long term strategy and of permanent resources for sector development - Limited support organisations targeting creative companies

Opportunities	Threats
<p><u>Industry</u></p> <ul style="list-style-type: none"> - Recognition at EU policy level in order to access funds/opportunities - New technology development favour the development of creative companies (e.g. web, tv, etc.) and networking opportunities (social networks targeting artists and creative companies) - Access to knowledge and research capacity will favour innovation and growth - Improvement of ICT competencies - Opening of new markets (including working for traditional industries), also at the international level - Opening of education/research actors for collaboration - Flexibility to changing market - Growing interest in "cluster" models including industry and education/research actors <p><u>Research and Education</u></p> <ul style="list-style-type: none"> - Collaboration with the industry will provide research organisations with extra funding - Large potential market in application of knowledge to industry - Increase reputation and attractiveness of students - Opening of new research areas - Growing interest in "cluster" models including industry and education/research actors <p><u>Policy makers and intermediaries</u></p> <ul style="list-style-type: none"> - Increase and/or maintain economic and social activity in the region - New development models based on cultural and creative sectors - Opportunity offered by EU policy level and European projects (e.g. Creative Growth project) - Growing interest in "cluster" models including industry and education/research actors - Innovation promotion in traditional sectors thanks to collaboration with creative industries: demand creation for the creativity industry 	<p><u>Industry</u></p> <ul style="list-style-type: none"> - Shrinking of market opportunities because of economic situation (e.g. cuts in resources for culture) - Difficulty to identify proper education/research actors - Missing business opportunities due to lack of skills and knowledge - Lack of cooperation between companies because of competition - Vulnerability of innovative activity because of missing of legal framework (Intellectual property rights protection is not covering properly the creative sector) - Difficulty to capitalize on the results of science-industry cooperation because of lack of access to finance (difficulty to assess the value of creative products) <p><u>Research and Education</u></p> <ul style="list-style-type: none"> - Cuts in resources for research and education - Small size of the market potential (to set up specific services) - Lack of financial resources of companies - Budget reductions in regions, affecting creative sector - Lack of recognition of expertise and of willingness of cooperation - Too ambitious target in terms of additional income and number of companies to be targeted <p><u>Policy makers and intermediaries</u></p> <ul style="list-style-type: none"> - Lack of coordination of funding sources and actors - Difficulty to consider the sector as a whole, as sub-sectors have many different identities and needs - Too generic services from supporting actors that do not meet creative industry needs

5 Good practices

5.1 Choice of good practices

TWG members have selected good practices according to the following criteria:

- Area criteria: due to the wideness of the theme, it was decided to concentrate selection on the TWG member regions
- Type criteria:
 - Practices in transferring knowledge and technology to Creative Industries
 - Practices in transferring creative competences to other industries
 - Practices in Linking Education-research-industry: methods applied not especially developed in the creative sector but having proved to be successful
- Effectiveness: in terms of obtained results, originality and innovation.

It is to be mentioned that these were only general indications and that TWG members were left free to select the practices they wished to suggest.

5.2 Practices overview

In total, 11 good practices have been selected from Asturias, Emilia-Romagna, Scotland South Denmark and Southern Smaland with the following features:

- Some of the good practices are multi-sectors whereas others target specific creative sub-sectors.
- They cover the main following themes: knowledge and skills, research competencies and technologies and networking.
- Most practices are programmes and projects (8 out of 11), a few are service centres and triple helix organisations (2) only one is a policy programme.

The outputs of good practices mapping exercise are summarised in the table below.

		Type of practice		
Theme	Sub-theme	Policies	Programmes/Projects	Service centres/triple helix organisations
Knowledge and skills	Education and training of professionals		<p>Aster DOC - programme on innovation and technology transfer for PHD students in Emilia-Romagna (I)</p> <p>Master programme in Design Management, University of South Denmark and Kolding School of Design (DK)</p> <p>Master programme in Entrepreneurship in the Live Show Sector, University of Bologna (I)</p> <p>GIOCA programme – University of Bologna (I)</p>	<p>Edinburgh Skillset Screen & Media Academy Hub (ESSAMA) (UK)</p> <p>School for Sales & commercial development for Technology experts (E)</p>
	Placement of students in enterprises		<p>Aster DOC - programme on innovation and technology transfer for PHD students in Emilia-Romagna (I)</p> <p>Master programme in Design Management, University of South Denmark and Kolding School of Design (DK)</p> <p>Master programme on Entrepreneurship in the Live Show sector, University of Bologna (I)</p> <p>GIOCA programme – University of Bologna (I)</p>	<p>Edinburgh Skillset Screen & Media Academy Hub (ESSAMA) (UK)</p>
	Staff exchanges			
Research competencies and technologies	Collaborative (research) activities	High Technology Network and Technopoles in Emilia-Romagna (I)	<p>Interface - the knowledge connection for business - programme launched by Edimburgh Research and Innovation Ltd (UK)</p> <p>2kt transferring knowledge to industry programme launched by Edinburch Napier University (UK)</p> <p>ARTBUILT - a network between the building industry and artists in Southern Denmark (DK)</p>	<p>Research labs and service centres forming the High Technology Network in Emilia-Romagna (I)</p>
	On demand consultancy		<p>2kt transferring knowledge to industry programme launched by Edinburch Napier University (UK)</p>	
	Knowledge and Technology transfer (patenting and licencing)	High Technology Network and Technopoles in Emilia-Romagna (I)	<p>2kt transferring knowledge to industry programme launched by Edinburch Napier University (UK)</p> <p>Spinner programme to support technology transfer projects in Emilia-Romagna (I)</p>	<p>Research labs and service centres forming the High Technology Network in Emilia-Romagna (I)</p>
	Research and university spin-off companies		<p>Spinner programme to support business ideas with technology content in Emilia-Romagna (I)</p>	
Networking	Connection between CIs and traditional industries		<p>Master programme on Design Management, University of South Denmark and Kolding School of Design (DK)</p> <p>ARTBUILT - a network between the building industry and artists in Southern Denmark (DK)</p>	
	'Triple helix' based programmes	DISK, Cluster Development in Southern Smaland (SE)		<p>Edinburgh Skillset Screen & Media Academy Hub (ESSAMA) (UK)</p> <p>School for Sales & commercial development for Technology experts (E)</p>

Tabel 2 – Good practices matrix

5.3 Good practices per topic

In the present section, the good practices selected in each region are classified per topic and briefly presented. Further information on each practice are available in Annex 1.

5.3.1 Practices in “knowledge and skills”

There are 6 good practices linked to the development of skills among students, researchers or professionals in management and/or technology transfer as well as practices based on the collaboration of creative professionals in education programmes.

The practices are either multi-sector or specific to the creative sector. They are education or training programmes aimed at achieving innovation projects, gaining management skills or specific on a creative sector with a high collaboration with companies.

Some practices are linked to developing innovation project management skills among postgraduate students from different backgrounds, through teaming them up on specific projects or improving commercial skills in technology experts.

As regards management education, the necessity to improve management skills among entrepreneurs and professionals in the creative sector is an important issue that has been raised in various studies in the sector. For example, in a study carried out by the Utrecht School of the Arts for DG Education and Culture³, the lack of entrepreneurial skills is, after the lack for funding, the second issue that new entrepreneurs from all creative sectors face when starting their business. And despite its importance, there is still little inclusion of management skills in education backgrounds. Some examples from the regions could be of inspiration for developing new initiatives.

5.3.1.1 Aster DOC – Emilia-Romagna (Italy)

Description

Aster offers several training programmes aimed at providing PhD students and researchers from technology and scientific fields with business, management and technology transfer skills.

The following schemes form part of the programme:

- **M_ASTER LAB:** This has been a one year course (approx 1.5 days/month) and included: events addressing key themes of innovation and TT introduced by experts in the field with half-day in-depth sessions focused on topics such as intellectual property and companies' innovation needs, plus a 2 month project work. Groups were matched with an appropriate local company and group members spent time working in the partner company
- **ASTER DOC.** This is a summer one-week intensive training module for PhD students with a technical-scientific background from the Emilia-Romagna Universities. Team-working activities, conversations with entrepreneurs and industrial researchers and visits to companies are included.
- **M_ASTER Match:** 3 days during which a psychologist and a scientific communicator prepare groups of researchers to present their research results to companies at the local event “R2B-Research to Business” that takes place in Bologna each year.
- **M-ASTER 2 days:** 2 consecutive intensive 12-hour-days course including meetings with representatives from innovative companies or research centre.

Main innovative feature

The original features are linked to the approach (both theoretical and practical) and training

³ HKU (2010), “The entrepreneurial dimension of cultural and creative industries”, Hogeschool for de Kunsten Utrecht, ISBN/EAN:978-90-817243-1-9

tools (lectures, events, company visits project work).

The schemes are of different durations and all cover 3 main training areas (1- economic and management, 2- innovation and technology transfer and 3- psycho-social area). The collaboration with the industry represents a key aspects of all schemes: involvement of companies in lectures, events and study visits but businesses are also directly involvement in trainees project works, teams being set among trainees and associated to specific companies.

5.3.1.2 Master in Entrepreneurship in Live Show sector at the University of Bologna– Emilia-Romagna (Italy)

Description

The Master in "Entrepreneurship in Live Show sector" is a 12 month Master's degree open to graduates in letters, economics, culture, political sciences, law and other degrees. The Master has a 1500 hours duration; 1000 hours in teaching classes and 500 hours as training period in an organisation active in live shows.

The programme aims to enable graduates 1) to operate in the areas of production, distribution and promotion and 2) to plan activities according to cultural, social and economic policy requirements.

Main innovative feature

Organised on a yearly basis for over 20 years, the programme is organised in close collaboration with organizations in the live show sector. It is developed both by the Department of Music and Performing Arts at the University of Bologna together with an important organisation in the field of Live Show (Fondazione ATER Formazione) and in close collaboration with important actors in the live show fields (theatres, associations, institutions etc.).

5.3.1.3 Graduate degree in Innovation and Organization of Culture and the Arts (GIOCA programme) at the University of Bologna – Emilia-Romagna (Italy)

Description

The Graduate degree in Innovation and Organization of Culture and the Arts (GIOCA) is a two-year second level degree in arts and cultural management within the Faculty of Economics of the University of Bologna (the degree is a *laurea magistrale* in the Italian terminology, yet considered a "master" degree according to international standards).

Main innovative feature

The highly innovative programme is designed to help students attain the management skills they will need to work in cultural organizations, focusing on managerial knowledge and using a strong interdisciplinary and international approach.

5.3.1.4 Master in Design Management – South Denmark (Denmark)

Description

Master programme in Design Management (Kandidatuddannelse i Designledelse) is a university education programme at master level. The MA in Design Management is an interdisciplinary education scheme under the Faculty of Social Science at the University of Southern Denmark (SDU), Kolding campus.

The programme aims to educate professionals who are capable of building a bridge between designers and business-people as it links business economic elements such as strategy and project management with disciplines in design practice at the School of Design in Kolding and with culture analysis and aesthetics at the department for Design Studies at SDU Kolding.

Students work on "cross disciplinary" applied projects together with local companies.

It was established in 2007 and currently hosts 70 students.

Main innovative feature

Students are recruited among bachelors from business, humanities and design – who will work together in cross-disciplinary projects so that they can contribute with insights from each of their own disciplines.

Each term, students work out a "cross-disciplinary project" where they are obliged to combine insights from management, humanities, and design for the purpose of solving a practical (business) problem for a company or organisation.

Students foremost competence will be the ability to communicate across those disciplines at stake both internally and externally in design projects, i.e. amongst designers, companies, marketing partners and user / customer groups.

The MA in Design Management is the only education of its kind in Denmark.

5.3.1.5 Edinburgh Skillset Screen & Media Academy Hub - Scotland(UK)

Description

Edinburgh Skillset Screen and Media Academy (ESSAMA) is one of only two dual-status Skillset Screen & Media Academies in the UK being the only one with this status in Scotland.

The Academy provides education and training courses.

Undergraduate programmes range from undergraduate film, photography, journalism and television. Postgraduate programmes are also available on screenwriting, production and direction.

Short courses, public screenings and Continuing Professional Development workshops and events area also provided in the Academy Production Centre making it a busy hub, catering for industry professionals and the film-going public as well as student filmmakers across both institutions.

ESSAMA also provides Continuing Professional Development courses for practitioners.

Main innovative feature

ESSAMA provides education and training and also develop several mechanisms to help students and professionals network. In particular, ESSAMA has run a "creative collaboration" scheme to foster collaboration between student and graduates and the industry.

School for Sales and Commercial Development for Technology Experts – Asturias (Spain)

Description

The School for Sales & commercial development for Technology experts (Escuela de Desarrollo comercial para Tecnólogos) develops training programmes on sales and commercial development targeting technology experts. The programmes addresses researchers, technology experts in companies, new entrepreneurs.

The initiative is targeted to improve technology experts skills and competences, to optimize the work of the teams and with the ultimate goal to help companies in the region grow.

The School is promoted by IDEPA (Regional Development Agency of the Principality of Asturias) in collaboration with the “Dirección General de Política de la Pyme- DGPYME” (Directorate General of SME Policy) depending on the Spanish Ministry of Industry, Tourism and Trade.

Main innovative feature

Original aspects are linked to the approach (theoretical, practical and participatory through the resolution of cases, in order to acquire useful skills and attitudes to face the different aspects in sales management.), to the contents (sales management but also criteria, skills and attitudes to focus and interrelate the various aspects involved in management i.e. strategy, technology transfer, financing, IPR, business management tools, sales techniques...) and proposed training tools (company visits programme, lectures, sub-courses, workshops, pre-professional work programme, “employment agency”).

5.3.2 Practices in “research competences and technologies”

Research activity in the creative industry has been covered in various studies, in particular as regards the application of ICT to creative businesses. This is for example the focus of the EU project CReATE (<http://www.lets-create.eu/>) that has established a research agenda to favour ICT innovation in the creative industry. In particular, the project has identified the following research field priorities to help industry to innovate⁴: (1) Visual and interactive experience, (2) Tools of productivity & intelligent automation, (3) Digital distribution, (4) Mobility & interoperability, (5) User producer interaction in development.

As regards the practices identified in the regions in this topic, there are 5 good practices linked to support collaborative research activities, to foster knowledge and/or technology exchange, to enable companies access consultancy from research organizations and to help the development of spin-out companies from research outputs.

It is to be mentioned that only one out of the five identified practices exclusively applies to a creative sector (ART BUILT). The other practices are available for SMEs with an innovation project in any sector. All practices, that have a wide track record of supported innovation initiatives, have been applied to projects in the creative sector.

⁴ CReATE (2010), “Joint Research Agenda for ICT Innovations in Creative Industries” (available in the project website: <http://www.lets-create.eu/>)

5.3.2.1 Programme Interface

Description

“Interface - the knowledge connection for business” is a match-making service connecting businesses with an innovation project to experts, knowledge and research facilities available in all Scotland's Universities and Research Institutes.

It has been conceived as the central point of access for industry to Scotland's university research base, providing information and deals with enquiries on issues as: Research and technology capabilities, Specialist expertise, Access to equipment and facilities, Consultancy, Contract research and collaboration, Industrial placements, Training, support and development, Funding options and Intellectual property.

The programme is hosted by Edinburgh Research and Innovation Ltd (ERI) a wholly-owned subsidiary company of the University of Edinburgh and is carried out in partnership with main Scottish universities and research institutes.

Main innovative feature

Interface help businesses with an innovation project to identify the right research partner to carry it out with among the 26 Scottish research organizations participating in the programme and provides appropriate funding – in terms of research and development grants, case studentship, innovation award, financing for feasibility study, knowledge transfer partnership- to carry on the research.

5.3.2.2 Programme 2kt

Description

2kT serves as an interface between academia and industry and provides access to the specialist knowledge, skills and facilities at two of Scotland's top modern universities, allowing businesses to harness academic resources and exploit market opportunities. A team of five Business Development Managers work closely with academic staff and industry specialists to ensure knowledge and services are relevant to both needs of individual businesses and Scotland's overall economy. In addition, 2kt provides access to the 2kt Innovation Fund which offers funding of up to £5000 to Scottish based SMEs to support collaborative projects with 2kt academic partners to develop new products, processes or services that will benefit their businesses.

The work process is the following: 1) Suggestion of academic based on SME request, 2) Kick-off meeting with SME/academic chaired by 2kT team, 3) Definition of collaboration project, 4) 2kt assists in accessing funding for collaboration project and facilitates application process, 5) Sign of contract and 6) Start of working relationship.

2kt is a partnership between eight of east of Scotland's leading education establishments: Edinburgh Napier University (Lead Partner) and Queen Margaret University (Co- Lead Partner) as well as six colleges (more details in Annex 1).

Main innovative feature

2kT offers a combination of access to academic knowledge and access to funding in-house, innovation fund has helped substantially to foster partnerships between academics and businesses. SMEs gain access to a wide range of knowledge due to partnership approach.

5.3.2.3 Spinner 2013

Description

Spinner 2013 is the programme developed in the Emilia-Romagna Region to promote the upgrade and qualification of those people operating in R&D, technology transfer and innovation and to create a community where people are the core of innovation processes for the development of a new knowledge-based society.

It is dedicated to people interested in building projects for: developing an innovative business idea, for carrying on industrial research, technology transfer, organizational innovation activities in collaboration with universities, research centres and enterprises.

It offers an integrated system of grants, opportunities and services.

Spinner 2013 is promoted by Spinner Consortium - set by three different shareholders: Aster, Fondazione Alma Mater (Foundation of the University of Bologna), Invitalia (National Agency for the Inward Investments and Business Development) – and is funded by the Regional Operation Programme 2007-2013 of Emilia-Romagna Region, ESF, axis IV "Human Capital" objective 2 "Regional Competitiveness and Employment".

Main innovative feature

Spinner 2013 is a complete programme to support knowledge and technology transfer projects, to support business projects and organisation innovation. The programme is dedicated to people developing innovation projects mainly on those 3 fields and support them with financial aid (grants and incentives), assistance and consultancy services (especially through a network of offices all through the Emilia-Romagna region) and networking services and tools.

5.3.2.4 ART-BUILT – a network between the building industry and artists

Description

The objective of ART-BUILT is to encourage innovation in the construction industry through the involvement of art. ART-BUILT is an example of how craftsmen and creative businesses collaborate with private industry to jointly develop new products and create new knowledge.

With the ART-BUILT project an innovative meeting space is created where actors involved in the development of new products represent disciplines such as art, ceramics, 3D graphics, architecture, design, bricklaying profession, brick manufacturers, etc.

In collaboration with EUC-North, ART-BUILT has developed prototypes of new bricks and tiles currently for sale. Meanwhile they have developed new innovative bricklaying techniques which incorporate art into buildings and adds a new visual expression.

ART-BUILT is a project of Spinderihallerne – Center for Kultur og Erhverv, Vejle Kommune (Spinderihallerne – Centre for Culture & Business, Municipality of Vejle).

Main innovative feature

The ART-BUILT innovation platform works with product development as a process in which art is incorporated into the construction. Thus the building/construction will appear as a uniform whole rather than various composite parts.

5.3.2.5 Emilia-Romagna High Technology Network

Description

The Emilia-Romagna Region started in 2004 to design and develop a new regional system for industrial research and technology transfer.

Emilia-Romagna High Technology Network (HTN) is composed of a series of research facilities exclusively dedicated to applied research.

Those facilities are laboratories and service centres organised in 6 thematic platforms (one of those is dedicated to "ICT and Design") and operating in a series of new physical locations that will be available all over the region (techno-poles).

The 6 platforms have the objective to:

- Give support to industrial enterprises upgrading its labs with the most suitable instrumental equipment and tooling
- Foster company innovation attitude
- Keep a close contact with the European Technological Platforms
- Outline Marketing and Product Development tools
- Disseminate information among the regional enterprise

Main innovative feature

Emilia-Romagna High Technology Network represents the output of an extremely ambitious policy for innovation and industrial research promotion and support. There are 1100 researchers involved in HTN activities (over 90 only in the ICT and Design platform). It is governed by a steering committee with representatives both from the research and the industry and the coordination from Aster.

5.3.3 Practices in "networking"

There are 3 good practices aimed at ensuring networking among actors. There are 2 main approaches that have been investigated (1) "triple helix" approach i.e. networking among research organizations, industry and policy makers and (2) networking between creative industries and other industries.

5.3.3.1 Innovative work model

Description

"Innovative work model" proposes a functioning approach to the triple helix collaboration model for promoting innovation. This method is developed by DISK, Dynamik i Småländska kluster, Cluster development in southern Småland.

Through the innovative work model, the regional authorities have organised conferences all around the region on 6 specific sectors that have the potential to grow into new clusters. Science, industry and local institutions are involved in the whole process.

Innovative aspect

The conferences are organised with the support from 6 local municipalities that have participated in the selection of the sector to reinforce the collaboration and promote debate.

5.3.3.2 ESSAMA

As already mentioned, ESSAMA is an important centre for education and training in the film sector. ESSAMA is also a meeting place and for main players to network. In particular, ESSAMA organises "Creative Collaborations", a regular networking event for Edinburgh Napier and filmmaking students. It provides an opportunity for directors, writers, producers and animators to meet each other and form creative collaborations. The events include speed dating and pitching sessions, screenings of student work as well as opportunities to chat over a glass of wine. These informal networking sessions help students get to know each other and result in many undergraduate and postgraduate collaborations.

5.3.3.3 ART-BUILT

ART-BUILT had the main aim to favour cross-sector collaboration between artists and companies in the building sector. Within the programme, a wide series of networking actions have been carried out: coffee-meetings with key people, workshops on product development/experiments as well as several exhibitions.

6 Recommendations

The following recommendations have been developed on the basis of the results of the SWOT and good practices analysis.

6.1 Knowledge and skills

Favour the development of management skills among students and professionals in the creative sectors drawing from methods developed in technology and scientific fields

Management skills should be developed either in university education curriculum or in additional curriculum. Among the good practices presented previously, the method developed by the "Escuela De Desarrollo Comercial Para Tecnólogos" in Asturias, could be proposed to researchers and practitioners in the creative industries.

The services developed by Aster in Emilia-Romagna for PHD students in technical and scientific fields may also be proposed to students in culture/creative sector and/or organisations (enterprises and other players) in those fields.

Favour the collaboration of the creative industry players in higher education curricula

Including professionals from the creative business in teaching staff, contributor is a key aspect for ensuring that university curricula respond to market requests.

This is especially true at Masters' levels as in the example of the "Master in Entrepreneurship in the Live Show sector" developed by the Department of Music and Performing Arts at the University of Bologna in collaboration with the Foundation ATER Formazione that involves professionals and entrepreneurs in the field of live show in the education curriculum and organises training periods for the students at important organisations from this specific field (theatre, associations, other organisations).

Another example is the experience within Kandidatuddannelse i Designledelse (MA in Design Management) developed by the University of Southern Denmark and Kolding School of Design in South Denmark in which companies and other local organisation play an active role in the implementation of "cross-disciplinary projects".

6.2 Research competencies and technologies

Favour research activities in companies through the provision of opportunities in terms of favoured contacts and financing

On the one hand, due to the small and even micro dimension of most creative companies, their capacity to carry on R&D activities, to access technology and technical competencies is limited. Helping more companies to implement an innovation process through accessing research competences is a key issue especially because new technology development favours the development of creative companies (e.g. web, tv, etc.) and networking opportunities (social networks targeting artists and creative companies).

On the other hand, research organisations are not used to working with creative companies as there is no systematic approach to work with this specific sector.

In order to favour creative companies access to research competences and resources, the following may be suggested:

- Create connection methods to link research competencies with enterprise needs (e.g. the Interface programme in Scotland)
- Dedicate resources to this specific sector for instance through explicitly including the culture and creative sector among target business sectors for research programmes available at all levels (EU, national, regional).
- Provide dedicated funding for technology and knowledge transfer projects carried out by companies and research organisations even through small amounts for favouring collaboration work to happen e.g. the Spinner programme in Emilia-Romagna that provides one year duration research grants to graduates to collaborate with companies on technology transfer projects.
- Give access to collaboration opportunities to micro companies and sole traders as those are the main dimensions of companies in this sector.

Favour the transfer of creative competences together with technical competences to traditional companies

Favouring the collaboration between research in technology and other scientific fields (engineering, chemistry etc.) and companies is an important issue both at EU and regional levels. Creative competences may also play an important role in the development of new products and services.

An example of this is the work developed within ART-BUILD by Spinderihallerne – Centre for Culture & Business in the Municipality of Vejle (South Denmark). ART-BUILT is an example of how craftsmen and creative businesses from the Spinderihallerne collaborate with private industry to jointly develop new products and create new knowledge. The objective of ART-BUILT is to encourage innovation in the construction industry through the involvement of art.

6.3 Networking

Research organisations have difficulties to communicate their competences towards the industry base and also have difficulties in understanding research needs.

Networking occasions between research and industry are to be encouraged

Meeting occasions are to be encouraged in order to favour collaboration. An example of this is that of "Innovative work-models" method within the initiative "Cluster development in southern Småland" (DISK, Dynamik i Småländska kluster) that identifies relevant clusters in the region with growth potential. Connecting science, industry and public institutions to the process.

6.4 Role for policy makers

Policy makers show an interest in favouring "creativity" as a source for innovation and enterprise development as well as a willingness to support the creative industry development. We will list here some considerations on the role that policy makers may play at regional levels to support the creative sector in general:

- The willingness to support the creative sector should be explicitly included in the policy agenda and with specific budget dedicated to the sector
- Innovation support programmes should be adapted to creative sector characteristics (micro and sole traders and free lancers).
- many policy actors should be involved, as creative industry is of interest for different policy areas - industry departments, culture departments, tourism departments with different targets, approaches, ... hence coordination actions are essential.
- Support the establishment of support organisations targeting creative companies.

7 Conclusions

There are many possible relations between education, research and industry possible with a fruitful collaboration and benefits for all parties. This report has explored how the perspectives of the sector could be enhanced, for the benefit of regional economies. By looking at strength and weaknesses in the relationship among these actors, some key recommendations for policy-making have emerged. There is strong evidence that supporting the interaction among the key actors yield significant economic benefits. Thus, policy should support these relations in many directions, in particular by explicitly mentioning CCIs in their programmes for innovation and industrial research, promoting support organisations for CCIs, coordinating all policy makers.

Bibliography

EC (2009), "Metrics for Knowledge Transfer from Public Research Organisations in Europe"

CREaTE (2010), "Joint Research Agenda for ICT Innovations in Creative Industries" (available in the project website: <http://www.lets-create.eu/>)

HKU (2010), "The entrepreneurial dimension of cultural and creative industries", Hogeschool for de Kunsten Utrecht, ISBN/EAN:978-90-817243-1-9

Annex - Good practice outlines

In the present section, the selected good practices in each region are presented.

Practices from Asturias

One good practice has been selected from Asturias: Escuela De Desarrollo Comercial Para Tecnólogos.

Name	Commercial Development School for Technology Experts (Escuela De Desarrollo Comercial Para Tecnólogos)
Region	Asturias (Spain)
Promoters	"IDEPA" (Regional Development Agency of the Principality of Asturias) in collaboration with the "Dirección General de Política de la Pyme- DGPYME" (Directorate General of SME Policy) depending on the Spanish Ministry of Industry, Tourism and Trade.
Contacts	Patricia Martín Velasco, Centro Europeo de Empresas e Innovación del Principado de Asturias. Parque Tecnológico de Asturias s/n, Llanera. Principado de Asturias. Spain.
Website	http://www.idepa.es
Sector focus	All sectors
Target groups	Early stage company Researchers Research Centres Other: Staff from business associations
Time Span	The first edition was held in 2005, November 16. Since 2005 6 editions have been organised. The duration of each course is approximately 4 months.
Main objectives	1) To establish a training structure that improves technology experts skills in the commercial area, as well as redirecting the technology-based professional vocations to the sales area. 2) To create a "Commercial Community" through the Forum of Directors of the FENA Business School, where students and ex-students share experience, propose and develop activities. The Forum of Directors is a meeting point for all professionals and managers associated with the FENA Business School Foundation of Asturias
Main financing sources	IDEPA mainly finances directly this initiative on its own budget integrating budget from other regional/national subsidies, ESF, and sponsorships.
Description	The Escuela de Desarrollo comercial para Tecnólogos (School of Sales & commercial development for Technology experts) qualifies technology experts to respond with guarantees and assurance to the technological demands of the markets, customers, competency, the companies themselves and the growing demand for business managers. To achieve this objective a long-term training course programme (9 months) has been designed. The course programme addresses the following targets: 1) Technology experts in companies who need a commercial development 2) Researchers from the Spanish public research system

	<p>3) Researchers and participants in the Spanish Programme "Torres Quevedo"⁵</p> <p>4) Entrepreneurs in the process of creating a technology-based firm.</p>
Working mechanisms and main services	<p>In relation to the working mechanisms, the most remarkable features of the programme are the following:</p> <ol style="list-style-type: none"> 1) Approach: theoretical and practical approach. Theoretical contents are complemented with practical workshops, study visits and cases, pre-professional work, etc. 2) Wide experience of the organizers in tailor-made training and approachable in the field of business management and sales management. 3) A teaching staff involving outstanding and prestigious professionals at national and international level from the world of business and with extensive teaching experience. 4) Contents: the contents include not only necessary knowledge for sales & commercial management of the company but also criteria, skills and attitudes to focus and interrelate the various aspects involved in such management. (Strategy, technology transfer, financing, Right Property, Business & commercial management, tools, sales techniques...) 5) The methodology is practical and participatory, through the resolution of cases, in order to acquire useful skills and attitudes to face the different aspects of the modern sales and commercial management. 6) Evaluation system: personalized and continue evaluation. <p>Programme of current 6th Edition (2010-2011):</p> <ul style="list-style-type: none"> - 80 theoretical & practical hours - Complementary activities: 24 hours (study visits, workshops, practical experiences...) - Final Project supported with mentoring. - Conferences
Tools	<p>The specific tools developed of the practice are the following:</p> <ul style="list-style-type: none"> - company visits Programme - lectures - sub-courses - workshops - pre-professional work Programme - employment agency
Outputs	<ol style="list-style-type: none"> 1) 5 editions (2005 to 2010): 72 students trained. The 6th edition is about to start (2010-2011). 2) ADECOTEC association created.
Excellence of the practice	<p>This initiative responds to the needs of those professionals with a technical background or technological based professionals, which have to face sales and commercial activities of products and services with high technological content.</p> <p>This initiative is particularly useful when the market and industries require commercial consultants with a technical background.</p>

⁵ Torres Quevedo is a National call promoted by the General Directorate for Research, under the National Ministry of Education and Science, for the R & D hiring personnel (doctors and technologists) in companies, research institutes and business associations

	This initiative is a clear example of how different actors (industry, science & research, policy makers and intermediary organisms...) come together for a common result. The fact that the IDEPA Regional Development Agency plans an annual and direct grant for developing this programme is a success factor in itself.
Influence on the region development	<p>Regional institutions/national public bodies detected the needs of specialisation and interests of commercial consultants that work in the technologic and technical fields.</p> <p>The initiative is targeted to improve staff skills and competences, optimizing the work of the teams and with the ultimate goal of benefit of the companies in the region.</p> <p>Students improve their skills and performance in Asturian companies. They extend their contact networks and make contacts with companies through the company visits programme. Also they can benefit from the pre- professional work programme and the employment agency.</p> <p>At the same time companies benefit from better qualified staff and make contact with qualified potential candidates in some cases.</p> <p>All contribute to economic development, through a pro- active initiative on regional development targeted to real and present SMEs needs.</p>

Practices from Scotland

There are 3 practices selected from Scotland: 2kt transfer ring knowledge to industry programme, Edinburgh Skillset Screen & Media Academy Hub (ESSAMA) and Interface programme.

Name	2kt transferring knowledge to industry
Region	Scotland (UK)
Promoters	<p>2kt is a partnership between eight of east of Scotland's leading education establishments:</p> <ul style="list-style-type: none"> • Edinburgh Napier University (Lead Partner) • Queen Margret University⁶ (Co- Lead Partner) • Stevenson College Edinburgh⁷ • Jewel & Esk College⁸ • Edinburgh's Telford College⁹

⁶ Queen Mary University plays a key role in Scotland's world class higher education sector. It aims to be the low-volume, high-quality university of first choice for talented individuals seeking an education and research experience in health and related studies, culture or enterprise, within an institution that is distinguished by its collaborative and innovative approach to research and teaching and close involvement with the local community.

⁷ Based in the West of Edinburgh, we are one of the largest Colleges in Scotland. We are dedicated to providing services to businesses and individuals across Scotland, the UK and Internationally. We are widely recognized for the provision of high quality, business focused training and consultancy across diverse knowledge and skill areas.

⁸ With close to 8000 students studying at 2 campuses Jewel & Esk College offers full time and part time courses, evening and community based classes as well as apprenticeships, short courses and professional development awards. The subject matter is as varied as the delivery method. Everything from Access to Further Education to Modern Musicianship; Entry to the Construction Trades to Advanced Engineering; Hair & Beauty to English for Speakers of Other Languages.

	<ul style="list-style-type: none"> • Elmwood College¹⁰ • Oatridge College¹¹ • Carnegie College¹²
Contacts	Julia Gillem 2kt New Craig Craighouse Campus Craighouse Road Edinburgh EH10 5LG Email: j.gillam@napier.ac.uk
Website	http://www.2kt.org.uk
Sector focus	All sectors
Target groups	Existing firms (not in early stage) Researchers Students Research centres Universities and other higher education institutions
Time Span	2kt was launched in 2007 as collaboration between Edinburgh Napier and Queen Margret University. This year (2010), based on the success and the learning experience of 2kt, sister project, 2kt+, has been launched as a collaboration between Edinburgh Napier University and 6 different colleges to widen the spectrum of expertise and academic knowledge for the businesses.
Main objectives	The main objective of 2kt is to help businesses in Scotland to <ul style="list-style-type: none"> • Plug the skills or knowledge gaps which are lacking in their organisation; • Access experts who can help take the business forward • Find an innovative solution to help the business grow • Increase their competitive advantage

⁹ Edinburgh's Telford College is one of the largest further and higher education providers in Scotland and aims to meet the education and training needs of individuals, industry and the wider community. The college works in partnership with a wide range of local, national and international organisations to ensure we offer students an enhanced learning experience. With over 600 staff the College brings a wealth of expertise, knowledge and skills to ensure that students have the support and encouragement they need to succeed.

¹⁰ Elmwood College's Rural Business Centre aims to provide support and services to businesses. By working in partnership with key stakeholders Elmwood College will provide a one-stop shop for business development, specialist business advice tailored to the needs of individual organisations and their employees. The overall aim of the college is to improve the sustainability and viability of rural business base.

¹¹ Oatridge College has contributed to the development of the landbased industries sector for almost 40 years and in that time has proved itself to be Scotland's premier landbased Further Education and Vocational training institution, supplying industries with a skilled workforce and opportunities for continual professional development. The college hands-on, practical approach to sharing new knowledge and up-to-date techniques enhances the performance of the sectors businesses at home and abroad.

¹² CC plays a significant role in supporting business start up, growth, sustainability and innovation in the economy, contributing towards highly skilled and educated workforces, and responding quickly and flexibly to changing needs with a strong "solutions" based approach to training and consultancy for employers in the public and private sectors.

	<ul style="list-style-type: none"> • Attract additional funding to support their developments; • Benefit from cutting edge research and testing facilities; • Have access to a dedicated business development manager who will ensure that they are able to quickly and efficiency tap into the rights skills available from two of Scotland's leading modern Universities.
Main financing sources	2kt receives funding support from the Scottish Government's Scottish Executive Expertise, Knowledge & Innovation Transfer programme (SEEKIT) and European Regional Development Fund (ERDF) and Scottish Enterprise (SE).
Description	<p>2kT serves as an interface between academia and industry and provides access to the specialist knowledge, skills and facilities at two of Scotland's top modern universities, allowing businesses to harness academic resources and exploit market opportunities.</p> <p>A team of five Business Development Managers work closely with academic staff and industry specialists to ensure our knowledge and services are relevant to both needs of individual businesses and Scotland's overall economy.</p> <p>In addition, 2kt provides access to the 2kt Innovation Fund which offers funding of up to £5000 to Scottish based SME's to support collaborative projects with 2kt academic partners to develop new products, processes or services that will benefit their businesses.</p>
Working mechanisms and main services	<ul style="list-style-type: none"> • Suggestion of academic based on SME request • Kick-off meeting with SME/academic chaired by 2kt team • Definition of collaboration project • 2kt assists in accessing funding for collaboration project and facilitates application process • Sign of contract • Start of working relationship
Tools	<ul style="list-style-type: none"> • Website • 2kt Innovation Fund with access to 5.000 GBP funding for SMEs
Achieved results	<p>Since it was launched in 2007, the 2kT project has helped almost 170 Scottish SMEs increase sales figures by around £1.5 million collectively.</p> <p>The 2kt supportive approach and specialist expertise has resulted in many long term mutually beneficial relationships with clients, large and small, working at both national and international levels.</p>
Excellence of the practice	<ul style="list-style-type: none"> • Combination of access to academic knowledge and access to funding in-house, innovation fund has helped substantially to attract and foster partnerships between academics and businesses • SME gains access to a wide range of knowledge due to partnership approach • BDM are able to "translate" between business and academic world
Influence on the region	<ul style="list-style-type: none"> • Regional SMEs become more innovative • New jobs created due to increase in sales in companies

development	<ul style="list-style-type: none"> Establishment of new research and knowledge transfer institutes within the university which serve as a central point of access for businesses in a specific academic field
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Name	Edinburgh Skillset Screen & Media Academy Hub (ESSAMA)
Region	Scotland (UK)
Promoters	ESSAMA is based on a collaboration between the following organisations: <ul style="list-style-type: none"> Edinburgh Napier University Edinburgh College of Art¹³
Contacts	Prof. Robin MacPherson, Director ESSAMA, Edinburgh Napier University 2A Merchiston Avenue Edinburgh EH10 4NU Email: r.macpherson@napier.ac.uk ,
Website	http://www.napier.ac.uk/alumni/fundraising/ESSAMA/Pages/ScreenAcademyScotland.aspx
Sector focus	Film and video Television and radio Photography
Target groups	<ul style="list-style-type: none"> Existing firms (not in early stage) Early stage company Artists Students Universities and other higher education institutions
Time Span	ESSAMA was established in 2005 as Screen Academy Scotland. In 2008, the Media Academy status was added and the Screen Academy Scotland became the Edinburgh Skillset Screen and Media Academy.
Main financing sources	Skillset and the Scottish Government through Scottish Screen for the set-up phase (100% financing for the 1 st 2 years). In the implementation phase (3-6 years), gradual reduction of Scottish funding additional funding is now: bursaries for students, Edinburgh Napier University/eca internal funding for staff posts, EU funding through the ENGAGE partnership, income through CPD.
Main objectives	Besides offering a substantial range of under graduate and postgraduate programmes, ESSAMA is working closely with industry and with the Further Education sector to offer a seamless transition from further to post-graduate education, helping to ensure that Scotland's screen and media industries get

¹³ Edinburgh College of Art is a world renowned independent art college with an international reputation for originality, creativity and research. The College offers undergraduate, postgraduate and research degrees in the fields of art, architecture, design, and landscape architecture, as well as a wide range of short courses throughout the year and our Summer School.

The academic structure of Edinburgh College of Art is divided into three Schools reflecting the major areas of teaching and research (School of Design, School of Art and School of Architecture and Landscape Architecture), offering one of the broadest range of subjects of any UK art college. In support of the three major Schools, Edinburgh College of Art also has a Graduate Research School which works closely with the University of Edinburgh to offer MPhil and PhD opportunities in a range of disciplines. The Centre for Visual and Cultural Studies delivers programme content in cultural theory for all undergraduate degrees and also offers taught postgraduate provision in contemporary art theory, and visual and material culture.

Edinburgh College of Art is an academic partner of the University of Edinburgh. Its programmes are validated and the degrees awarded by the University of Edinburgh, internationally recognised as one of the world's leading academic institutions.

	<p>the graduates they need and that ESSAMA's graduates get the opportunities they need. The programmes develop personal creativity and professional skills through direct contact with industry practices, personnel and expectations. The Academy offers a range of post-qualification support including career planning, further training opportunities and help with starting up in business.</p>
Description	<p>Edinburgh Skillset Screen and Media Academy (ESSAMA) is one of only two dual-status Skillset¹⁴ Screen & Media Academies in the UK being the only one with this status in Scotland.</p> <p>The combined Film and Media Academy offers an integrated suite of broadly-based undergraduate programmes ranging from undergraduate film, photography, journalism and television to specialist postgraduate programmes in screenwriting, production and direction.</p> <p>ESSAMA has a broad range of facilities available to students at both eca and Edinburgh Napier and reciprocal arrangements in place for sharing across the two institutions. The Production Centre based in Merchiston Avenue provides full Production and Post-Production facilities and accommodates the busy schedules of both post-graduate and undergraduate students.</p> <p>In addition, a range of short courses, public screenings and Continuing Professional Development workshops and events also take place at the Production Centre making it a busy hub, catering for industry professionals and the film-going public as well as student filmmakers across both institutions.</p> <p>In terms of outreach to the broader industry, over the course of the past three years ESSAMA has been providing over 500 days of Continuing Professional Development courses per year for practitioners, including an international programme ENGAGE (funded by the EU MEDIA programme) in partnership with the national film schools in Ireland and Estonia and, since 2009, also in Finland. The Screen & Media Academy Scotland provides a space to learn and a gateway to fully independent professional practice for students and, for the screen industry, a gateway to the next generation of ideas, talent and skill.</p> <p>Edinburgh Skillset Screen and Media Academy also offers short courses in Screenwriting and Production as well as other specialist training in technical skills. Its Masters programmes were developed in collaboration with the industry, and the delivery of its content is strongly influenced by industry professionals who constitute a major portion of the teaching team.</p>
Working mechanisms and main services	<p>ESSAMA works in the following areas:</p> <ul style="list-style-type: none"> • Provision of education: diverse range of BA & MA programmes including full, part-time and distance learning modes. • Connecting with industry: Edinburgh Skillset Screen & Media Academy runs a programme of Professional Practice development to support student and graduate professional development through interaction with working industry professionals. The Professional Practice programme at the Screen & Media Academy offers mentoring and work placements as well as a range of masterclasses and Professional Practice workshops. • Provision of Training and Short Courses for professionals: ESSAMA

¹⁴ Skillset is an independent UK-wide organisation that is owned and managed by the creative media industries and works with both the industry and government to identify and tackle the skills and productivity needs of these industries throughout the UK. As a Sector Skills Council, one of Skillset's main roles is to develop and maintain National Occupational Standards for all occupations across the creative media industries including the work in advertising, animation, computer games, facilities, fashion and textiles, film, interactive media, photo imaging, publishing, radio and TV. The Skillset Media and/or Film Academies form a network of colleges and universities across the UK which are centres of excellence in film, television and interactive media.

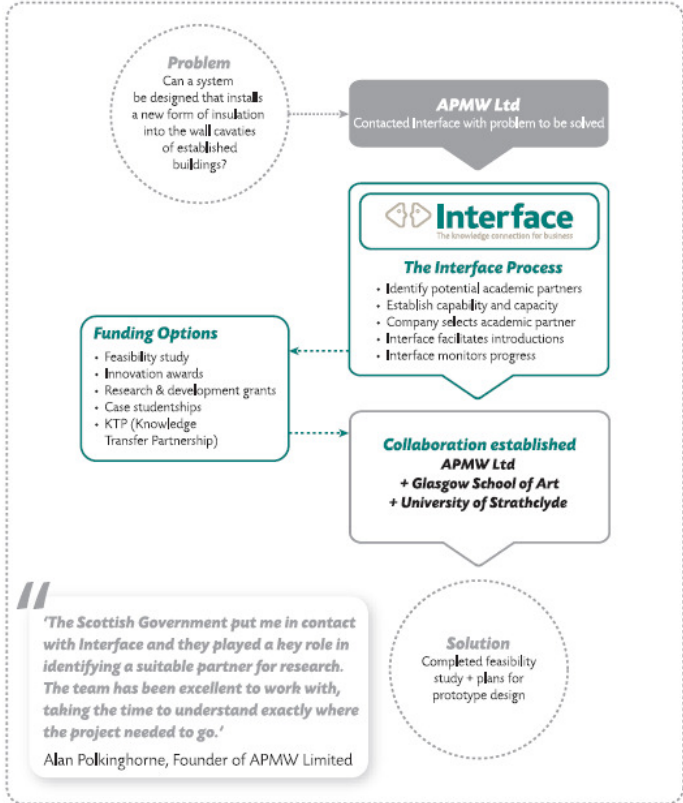
	designs, delivers and/or hosts several skills based, Career Development and Professional Development courses from Screenwriting to Directing as well as technical courses in Sound, Production and Editing.
Tools	<p>ESSAMA has developed a specific personal development planning toolkit that is applied to each candidate. It has proven to be a useful tool to help students to progress their own career pathway properly and achieve their individual goals.</p> <p>In addition, ESSAMA has run a “creative collaboration” scheme to foster collaboration between student and graduates and the industry. Creative Collaborations is a regular networking event for Edinburgh Napier and eca filmmaking students. It provides an opportunity for directors, writers, producers and animators to meet each other and form creative collaborations. The events include speed dating and pitching sessions, screenings of student work as well as opportunities to chat over a glass of wine. These informal networking sessions help students get to know each other and result in many undergraduate and postgraduate collaborations.</p>
Outputs	Since its establishment, in 2005, ESSAMA has helped over 200 writers, directors, producers and animators to make their mark on the page, on the set and on the screen. The Academy has delivered on average 450 days per annum of Continuous Professional Development training with courses that range from 1-10 days. By involving them in course design and delivery, the Academy has managed to develop more and stronger relationships with the key industry stakeholders in film and media ranging from individual SMEs who support specific student projects, partner organisations arranging for student and graduate placements to joint CPD courses with training institutions and/or professional industry associations. By participating in European projects, ESSAMA has managed to establish international links to Film and Media schools in Ireland, Estonia and Finland.
Excellence of the practice	<ul style="list-style-type: none"> • Substantial progress made towards improving Napier’s organisational structure, breadth of provision, quality of staff and resources • Much closer working relationships between Napier and eca across both film and media activities • Increase of industry partnerships and graduate collaboration projects • Accreditation and re-accreditation by skillset achieved
Influence on the region development	<ul style="list-style-type: none"> • Increase of number of students getting direct access to the industry through collaborative projects • Program delivery targeted to market demand due to strong involvement of industry actors in program design and delivery • Stronger recognition of strategic proposals for film industry development due to joint approach

Name	Interface – The knowledge connection for business
Region	Scotland (UK)
Promoters	Interface - the knowledge connection for business is a project hosted by Edinburgh Research and Innovation Ltd (ERI) a wholly-owned subsidiary company of the University of Edinburgh, responsible for pre-award research support services, management of technology transfer activities, consultancy services, company formation, incubation facilities and management of the

	University science park. The project is carried out in partnership with main Scottish universities ¹⁵ and research institutes ¹⁶ .
Contacts	Dr. Siobhan Jordan Project Director 1-7 Roxburgh Street Email: Siobhan@interface-online.org.uk
Website	www.interface-online.org.uk
Sector focus	All sectors
Target groups	Existing firms (not in early stage) Early stage companies Researchers Research centres Universities and other higher education institutions Other institutions
Time Span	Interface – The Knowledge connection for business was established in 2005, as a central point of access to help companies utilise the world-class technology, skills and research available within Scotland’s universities. In 2007, Interface expanded its remit to include Scotland’s research institutes, now representing 26 higher education and research institutions. In 2008, Interface was awarded a further five years funding from The Scottish Funding Council, following the success of its three year period.
Main objectives	Interface mission: To promote innovative business - academic collaborations through translating the needs of companies from all sizes and sectors into manageable projects for Scottish Universities and Research Institutes whether it involves knowledge exchange, business and product development, process or service improvement, or analysis and testing. Key Aims and Objectives <ul style="list-style-type: none"> • Provide a central point of access to the knowledge, expertise, services and facilities available from Scottish Universities and Research Institutes for industry and commercial organisations. • Provide information on capability and capacity in response to enquiries regarding the specialist expertise that is available in the Universities and Research Institutes; including queries on research capabilities, consultancy, access to equipment, facilities etc. • Stimulate demand by companies across all sectors and sizes (in particular SMEs) for such expertise and commercial opportunities. • Filter and direct enquires to individual research and commercialisation offices via a named point of contact. • Monitor progress of enquiries until a conclusion is reached and offer

¹⁵ Academic partners are: University of Aberdeen, University of Abertay Dundee , University of Dundee, University of Edinburgh, Edinburgh College of Art, Edinburgh Napier University , Glasgow Caledonian University, The Glasgow School of Art, University of Glasgow, Heriot Watt University, Open University in Scotland, Queen Margaret University, Robert Gordon University, The Royal Scottish Academy of Music and Drama, University of St Andrews, University of Stirling , University of Strathclyde, UHI Millennium Institute, University of the West of Scotland.

¹⁶ Research institutes are: Forest Research, Institute for Animal Health, The Macaulay Institute, Moredun Research Institute, Scottish Agricultural College, Scottish Association for Marine Science, Scottish Crop Research Institute.

	support and guidance (e.g. on funding options) throughout the process.
Main financing sources	Main financing sources of Interface project are: the Scottish Funding Council and "Innovative Actions" programme.
Description	<p>Interface is a matchmaking service connecting businesses quickly and easily to world class expertise, knowledge and research facilities available in all Scotland's Universities and Research Institutes.</p> <p>Interface's free and impartial service stimulates innovation and encourages companies to consider academic support to help solve their business challenges. Open to all, regardless of sector or geographical location, Interface proves that collaborating with academic partners brings significant business benefits.</p>
Working mechanisms and main services	<p>As a central point of access for industry to Scotland's university research base, Interface provides information and deals with enquiries on issues as:</p> <ul style="list-style-type: none"> • Research and technology capabilities • Specialist expertise • Access to equipment and facilities • Consultancy • Contract research, collaboration • Industrial placements • Training, support and development • Funding options • Intellectual property (IP) <p>Case study as regards to working mechanism:</p> 

	source: Interface booklet
Tools	<ul style="list-style-type: none"> • Website as information platform • Database of capabilities and contact for individual academic contacts • Newsletter • Specific events
Outputs	<p>In its six year of the project, Interface has introduced over 720 businesses to academic partners and its success story is reflected in the following (<i>as of July 2010</i>):</p> <ul style="list-style-type: none"> • Over 2173 enquiries received • 1060 enquiries have progressed beyond enquiry stage to establishing capability and capacity • 272 company and university collaborative projects initiated • Over 186 companies in discussion or at a stage of negotiation with universities • 73% of companies who have initiated projects have not previously worked with that academic partner • 66% of enquiries are from Scottish SME's • 13% of enquiries are from the rest of the UK and International organisations <p>Interface has established operational mechanisms, which includes a database of university capabilities and a network of contacts within each partner organisation. A new Interface website has recently been launched and provides a comprehensive guide to funding opportunities to support company engagement with academia, case studies and relevant networking events.</p>
Excellence of the practice	<p>The excellence of the practice is shown by excellent results in terms of:</p> <ul style="list-style-type: none"> • Number of business-academia projects initiated in a 5-year project period (272) • 25% of the companies have continued to work with their chosen partner institution after the initial project • "extremely positive impressions in terms of its professional approach and delivery" according to independent review 2007 • 50% of enquiries are referred from partner organisations/stakeholder institutions such as Scottish Enterprise, Chambers of Commerce, CBI etc which shows the recognition of the quality of the Interface service
Influence on the region development	<ul style="list-style-type: none"> • Promotion business innovation by providing access to academic expertise • Strengthening of relationship between academia and industry, creation of opportunities for Higher Education to showcase their expertise

Practices from South Denmark

Two practices have been selected from South Denmark: ART-BUILT and MA in Design Management.

Name	ART-BUILT – a network between the building industry and artists
Region	South Denmark (DK)
Promoters	Spinderihallerne – Center for Kultur og Erhverv, Vejle Kommune (Spinderihallerne – Centre for Culture & Business, Municipality of Vejle)
Contacts	Eva Sommer Hansen Center for Culture & Business – Municipality of Vejle

	Spinderigade 11 7100 Vejle Email: evsha@vejle.dk
Website	
Sector focus	Architecture Arts and craft
Target groups	Existing firms (not in early stage) Artists
Time Span	First round 2007-2009. Next period depends on available funding.
Main objectives	Promote the integration of art in buildings by <ul style="list-style-type: none"> • creating a network between artists, building-industry and architects, i.e. by arranging seminars and workshop • mediate collaboration on concrete product development and product experiments between producers to building industry and artists • mediate collaboration on concrete building projects between artists, architects and the building industry. • Develop artists' skills and promote knowledge of the building industry • Promote the ART-BUILT project to local and regional authorities and politicians.
Main financing sources	For the first programme, funding came from the Region of Southern Denmark and Vejle Municipality. The financing from the private companies has been in-kind funding such as materials and products, but also skills and competencies, man-power and production machinery.
Description	<p>ART-BUILT is an example of how craftsmen and creative businesses from the Spinderihallerne collaborate with private industry to jointly develop new products and create new knowledge. The objective of ART-BUILT is to encourage innovation in the construction industry through the involvement of art.</p> <p>With the ART-BUILT project an innovative meeting space is created where actors involved in the development of new products represent disciplines such as art, ceramics, 3D graphics, architecture, design, bricklaying profession, brick manufacturers, etc.</p> <p>In collaboration with EUC-North, ART-BUILT has developed prototypes of new bricks and tiles currently for sale at Petersens Tegl. Meanwhile they have developed new innovative bricklaying techniques which incorporate art into buildings and adds the new visual expression.</p> <p>Product development:</p> <p>Traditionally, the construction and the artistic decoration are kept separated and the two processes are developed in each their camp.</p> <p>The ART-BUILT innovation platform works with product development as a process in which art is incorporated into the construction. Thus the building/construction will appear as a uniform whole rather than various composite parts.</p> <p>The products jump off from the specific know-how in the individual professional disciplines and in this way one manages to communicate and develop it via this interdisciplinary cooperation.</p> <p>The financial cost of a building's artistic design is made efficient by integrating the artistic approach into the whole. This will create more art for the same</p>

	money.
Working mechanisms and main services	ART-BUILT objectives have been reached through the organisation of seminars, workshops on product development/experiments as well as several exhibitions.
Tools	Meetings, workshops and exhibition (see outputs)
Outputs	<p>1) The project "Murerfaget i bevægelse" ("the bricklaying business in motion") (with workshops and exhibition at the fair "Boligdrømme for Alle" (a housing/interior design exhibition) in Herning has resulted in the fact that new mural designs (new bricks) are now being produced at Egersund Teglværk.</p> <p>2) Collaboration with Vejle Tekniske Skole (Vocational academy, murals) concerning in-house training of brick-layers in the fields of creative brick-laying.</p> <p>3) A general info-folder on Art-built.</p> <p>4) A series of "coffee-meetings" with key-persons on e.g. how to best organise ART-BUILT in the future.</p> <p>5) A workshop on the creative use of concrete.</p> <p>6) A kick-Off-seminar with representatives from professional artists, architects, producers and educational institutions.</p> <p>7) Four Art-BUILT artists participating in the competition on new designs for kindergartens. The project made it to the final round.</p> <p>8) Final exhibition of concrete achieved results, artists and visions for the future.</p>
Excellence of the practice	<ul style="list-style-type: none"> • Outlines new business areas for artists • Possible branding of cities due to better and more interesting architecture • Involves sectors that normally do not collaborate and thus creates the possibility of new solutions (innovation)
Influence on the region development	ART-BUILT has enforced cross-sector collaboration – especially between arts and business – which is on the agenda of the regional development programme.

Name	Kandidatuddannelse i Designledelse (MA in Design Management)
Region	South Denmark (DK)
Promoters	Syddansk Universitet and Designskolen i Kolding (University of Southern Denmark and Kolding School of Design)
Contacts	Elin Brandi Sørensen Associate professor University of Southern Denmark Campus Kolding Engstien 1 DK-6000 Kolding Denmark Email: eso@sam.sdu.dk
Website	
Sector focus	Design
Target groups	Students

Time Span	The first students were enrolled September 2007
Main objectives	To educate professionals who are capable of building a bridge between designers and business-people.
Main financing sources	The education is wholly funded by the University of Southern Denmark and Kolding School of Design through teacher resources.
Description	<p>MA in Design Management is a university education at master level.</p> <p>The MA in Design Management is an interdisciplinary education scheme under the Faculty of Social Science at the University of Southern Denmark (SDU), Kolding campus. It links business economic elements such as strategy and project management with disciplines in design practice at the School of Design in Kolding and with culture analysis and aesthetics at the department for Design Studies at SDU Kolding.</p> <p>The students come from the design schools, certain design-oriented engineering disciplines, economics and humanities, as well as from aesthetic disciplines such as Design & culture-economy at SDU Kolding. The diversity of students' academic backgrounds gives a great professional range where students are compelled to discuss and draw from each other's disciplines and bring it into their projects.</p> <p>Their foremost competence will be the ability to communicate across those disciplines at stake both internally and externally in design projects, i.e. amongst designers, companies, marketing partners and user / customer groups.</p> <p>The MA in Design Management is the only education of its kind in Denmark. It was established in 2007 and currently hosts 70 students.</p>
Working mechanisms and main services	<p>We seek to recruit bachelors from business, humanities and design – and we intend to make them work together in the cross-disciplinary projects so that they can contribute with insights from each of their own disciplines.</p> <p>Each term students work out a "cross-disciplinary project" where they are obliged to combine insights from management, humanities, and design for the purpose of solving a practical (business) problem for a company or organisation.</p> <p>In the cross-disciplinary projects we invite typically local companies/organisations to act as host companies.</p>
Tools	Cross-disciplinary projects developed with companies and local organisations
Outputs	So far three students have graduated.
Excellence of the practice	<p>The MA in Design Management qualifies people to be "bridge builders" and operate in the inter-sphere between the creative (the creative industry, design, creative thinking) and the conventional industry and business; people who can bring culture, creativity and aesthetics into traditional marketing and business practices.</p> <p>The reasoning behind the selection is that to introduce and integrate creativity and design thinking into the mindset and business practices of conventional industries can stimulate and generate demand for those services which creative industries deliver and thus indirectly function as a business support instrument for the CI sector.</p> <p>From a business development and growth perspective, it seems equally important to consider and bring into play the potential knock-on effects that an</p>

	<p>increased awareness and use of creative innovation in conventional industries will have for growth of the creative industries sector itself.</p> <p>Creative companies do, however, not necessarily have the "skills" to work with business people: there may likely be a 'clash of cultures' as an obstacle to proper communication and cooperation; they are likely to think, act and communicated very differently. Universities can have a role to play here in terms of providing education and re-education/vocational training.</p>
Influence on the region development	<p>It seems too early to say anything definite about that; as mentioned only three students have graduated so far. However, the potentiel effect for the organisation(s) hiring a person with a MA in Design Management is more effective communication between designers and business people, and hence potentially also more effective innovation processes.</p> <p>In the cross-disciplinary projects we invite typically local companies/organisations to act as host companies.</p>

Practices from Southern Smaland

One practice from Southern Smaland has been selected: the innovative work-models project promoted by Cluster development in southern Småland (Dynamik i Småländska kluster).

Name	Innovative work-models
Region	Southern Smaland (SE)
Promoters	DISK, Dynamik i Småländska kluster, Cluster development in southern Småland
Contacts	Sven Westhoff Regionförbundet Videum Science Park 351 96 Växjö E-mail sven.westhoff@rfss.se
Website	
Sector focus	All sectors
Target groups	Existing Companies Research centres Universities and other higher education institutions Other institutions
Time Span	2008-2010
Main objectives	A functional approach to the Triple Helix collaboration that significantly contributes to more and better-functioning clusters and innovation with international competitiveness in the region.
Main financing sources	Regional funding.
Description	Identifying relevant clusters in the region with growth potential. Connecting science, industry and public institutions to the process.
Working mechanisms and main services	Organisation of conferences on specific sectors focus in 6 specific areas to favour the establishment of clusters.

Tools	A web tool has been developed in order to make it easier to understand the links between the triple helix interaction and growth in a region. To develop the tool, the team has worked for six months together with programmers. Prior to each conference the working group has adapted the content of the tool to the situation of the municipality.
Outputs	Development Conferences conducted in six municipalities and a regional conference which has provided a better understanding of the importance of the interaction between science, industry and public institutions.
Excellence of the practice	It has created opportunities to effectively demonstrate the importance of working together to create growth and build networks of people from all TH-actors.
Influence on the region development	The possibilities for creative collaboration has increased.

Practices from Emilia-Romagna

Three good practices have been selected from Emilia-Romagna: Spinner programme, PhDs in enterprises programmes developed by Aster and Master in Entrepreneurship in Live Show from the University of Bologna.

Name	Spinner 2013
Region	Emilia-Romagna (I)
Promoters	Spinner Consortium set by three different shareholders: Aster, Fondazione Alma Mater (Foundation of the University of Bologna), Invitalia (National Agency for the Inward Investments and Business Development)
Contacts	Valeria Bandini c/o Aster Via Gobetti 101 40139 Bologna Italy valeria.bandini@aster.it
Website	www.spinner.it
Sector focus	All sectors
Target groups	Existing firms (not in early stage) Researchers Students unemployed people Research centres Universities and other higher education institutions
Time Span	"Spinner 2013" started in 2007 and will finish in 2013. It is the second edition of the programme "Spinner" that started in 2000 and finished in 2006.
Main objectives	<ul style="list-style-type: none"> • Qualification of human capital for the development of innovative and/or knowledge -based business idea • Qualification of human capital in the field of industrial research, experimental development and technology transfer • Qualification of human capital in the field of organisational, managerial

	<p>and financial innovation in SMEs and social co-operatives</p> <ul style="list-style-type: none"> • Better inclusion of women in sectors and roles with high technology or innovation content • Promotion of international mobility
Main financing sources	Spinner is funded by the Regional Operation Programme 2007-2013 of Emilia-Romagna Region, ESF, axis IV "Human Capital" objective 2 "Regional Competitiveness and Employment" - Regional Ministry for School, Vocational training, University Employment.
Description	<p>Spinner 2013 is the programme developed in the Emilia-Romagna Region to promote the upgrade and qualification of those people operating in R&D, technology transfer and innovation and to create a community where people are the core of innovation processes for the development of a new knowledge-based society.</p> <p>It is dedicated to people interested in building projects for: developing an innovative business idea, for carrying on industrial research, technology transfer, organizational innovation activities in collaboration with universities, research centres and enterprises.</p> <p>It offers an integrated system of grants, opportunities and services.</p>
Working mechanisms and main services	<p>Spinner programme is made of six action:</p> <ul style="list-style-type: none"> • Action 1: Development of innovative and/or knowledge-based business ideas. • Action 2: Industrial research, experimental development, technology transfer. • Action 3: Organisational, managerial and financial innovation (SMEs and social co-operatives). • Action 4: Pilot action "Women Technology Innovation" • Action 5: Pilot action "International Mobility" • Action 6: Qualification of human capital through the participation to a specialised inter-university Master. <p>The integrated offer includes:</p> <ul style="list-style-type: none"> • <u>Financial Aids:</u> <ul style="list-style-type: none"> ○ Grants (1.300 € monthly) ○ Financial Incentives (each candidate is entitled to be granted a maximum of 3.000 € to participate in specialist seminars, meetings, fairs etc.) • <u>Assistance and Services:</u> <ul style="list-style-type: none"> ○ Tutoring for business idea development ○ Improvement of human capital with: high level conferences, innovation culture seminars and support to competences upgrades (meeting with experts) ○ Specialised consultancy (the dedicated budget amounts to 2.000 €) <p>Every "action" combines in different ways the financial aids and services previously listed and has its own maximum budget. For instance, every group participating in "action 1" is entitled to get up to 48.000 € and every person participating in "action 2" is entitled to get up to 17.600 €.</p>
Tools	<p>Several tools may be mentioned:</p> <ul style="list-style-type: none"> • the territorial network of offices (Spinner Point) with dedicated personnel

	<p>in the main cities of the region. At the Spinner Points the candidates receive information (about the different actions of the programme and the deadlines to apply the proposal) and guidance and assistance in the preparation and submission of the format that would be later evaluated by the committee.</p> <ul style="list-style-type: none"> Operative tools: personal intervention plan (tool to develop and monitor supported projects progress), the spinner website (with information on the Programme and all the documents that are due to submit the proposal. There is also a board that enlist the competences and the request of people and enterprises that wish to participate to Spinner). A newsletter to inform about events promoted by Spinner and the initiatives of interested. <p>Moreover, Spinner organizes lectures and seminars to diffuse the Innovation culture.</p>
Outputs	<p>As regards the results in term of enterprise creation: out of 197 projects selected and supported by Spinner, 84 enterprises have been set in Emilia-Romagna . A research made - on a representative sample (75% of the enterprises) - at end 2009 on those companies has shown the following: the survival rate of supported businesses companies amounts to 80% after 3 years, the total turnover of 2009 amounts to 11 million Euro and 14 enterprises have registered a patent. Regarding Spinner 2013, at the present moment 66 projects have been selected and supported.</p> <p>As for technology transfer project, 450 projects have been supported by Spinner and almost 200 by Spinner 2013 in the first 18 months. Almost all beneficiaries are occupied and 40% of them have been hired in the same research centre involved in the Spinner project.</p>
Excellence of the practice	<p>The practice has been planned according to the main policy objectives defined by the Emilia-Romagna region, so it answers to real needs of the society.</p> <p>Spinner is well known in Italy and often imitated, because it supports the projects in the very early stages when other sources of funding (bank loans, investment etc.) are not available .</p>
Influence on the region development	<p>The new enterprises and the technology transfer projects supported by Spinner's funds are, for the most part, in the more strategic sectors of the region.</p>

Name	Aster – DOC PhDs in enterprise: complementary skills for a qualified career development
Region	Emilia-Romagna (I)
Promoters	Aster
Contacts	Marina Silverii Aster S. Cons. P. A. Via Gobetti, 101 40129 Bologna Marina.silverii@aster.it
Website	www.aster.it
Sector focus	All sectors
Target	Students

groups	Researchers Existing Companies						
Time Span	Several schemes form part of the programme developed since 2006.						
Main objectives	To provide PHD students and researchers from technology and scientific fields with business, management and technology transfer skills.						
Main financing sources	Regional fundings (Directorate for Productive Activities for M-Aster and Aster-Doc).						
Description	<p>The programme offers a range of training opportunities to scientific and technical doctoral candidates and researchers in the early career stage. The programme aims to develop transferable skills and business awareness. It's developed in conjunction with representatives from the business community. In the design phase, three main areas of expertise have been identified to increase through additional training"</p> <p>a) economic and management area b) innovation and technology transfer area c) psycho-social area</p> <p>The following table summarizes the main issues addressed within the courses</p> <table border="1"> <tr> <td>Economic and management area</td> <td> <ul style="list-style-type: none"> - The management of research projects in companies - Special features of project management in R&D - Technology Market Research " </td> </tr> <tr> <td>Innovation and technology transfer area</td> <td> <ul style="list-style-type: none"> - Technology, technological innovation and structure of the sectors; - Key sectors of the regional economy; - IPR - Access to public and private funding for research - Creating your own technology company </td> </tr> <tr> <td>Psycho-social area</td> <td> <ul style="list-style-type: none"> - Communication of the research results in non-academic contexts - Self-assessment of skills and foreshadowing of a professional project - Creativity and generating new ideas. </td> </tr> </table> <p>These contents has been tested within training courses of different duration and different methodological approach. The training was committed residually to academic professors, preferring the discussion with experts, PhDs founders of start up, public administrators, business consultants and HR managers.</p>	Economic and management area	<ul style="list-style-type: none"> - The management of research projects in companies - Special features of project management in R&D - Technology Market Research " 	Innovation and technology transfer area	<ul style="list-style-type: none"> - Technology, technological innovation and structure of the sectors; - Key sectors of the regional economy; - IPR - Access to public and private funding for research - Creating your own technology company 	Psycho-social area	<ul style="list-style-type: none"> - Communication of the research results in non-academic contexts - Self-assessment of skills and foreshadowing of a professional project - Creativity and generating new ideas.
Economic and management area	<ul style="list-style-type: none"> - The management of research projects in companies - Special features of project management in R&D - Technology Market Research " 						
Innovation and technology transfer area	<ul style="list-style-type: none"> - Technology, technological innovation and structure of the sectors; - Key sectors of the regional economy; - IPR - Access to public and private funding for research - Creating your own technology company 						
Psycho-social area	<ul style="list-style-type: none"> - Communication of the research results in non-academic contexts - Self-assessment of skills and foreshadowing of a professional project - Creativity and generating new ideas. 						
Working mechanisms and main services	<p>The following schemes form part of the programme:</p> <ul style="list-style-type: none"> • M_ASTER LAB: This has been a one year course (approx 1.5 days/month) and included: <ul style="list-style-type: none"> ○ 6 events addressing key themes of innovation and TT introduced by experts in the field with follow-up in-depth sessions related to these themes ○ Half-day in-depth sessions focussed on topics (such as intellectual property and companies' innovation needs) 						

	<ul style="list-style-type: none"> ○ 2 month projects proposed and completed by working groups with the support of tutors. Groups were matched with an appropriate local company and group members spent time working in the partner company • ASTER DOC: This is a summer week intensive training module for PhD students from the Emilia-Romagna Universities with a technical-scientific background. Team-working activities, conversations with entrepreneurs and industrial researchers and visits to companies are included. • M_ASTER Match: 3 days during which a psychologist and scientific communicator prepare groups of researchers to present their research results to companies at the local event "R2B-Research to Business" that takes place in Bologna each year. • M-ASTER 2 days: Intensive 2 consecutive 12-hour-days course including meetings with representatives from innovative companies or research centre.
Tools	<p>Different tools have been created for students who have participated in training courses:</p> <ul style="list-style-type: none"> • A web platform in which participants in these training pathways can download and share working papers and didactic materials. • Promotion services in the labour market of participants in courses (such as online database of professional profiles and print publications).
Outputs	<p>About 500 PhDs students or young researchers of the Emilia Romagna Region were involved in the training pathways.</p> <p>About 40 firms were involved in the training activities.</p>
Excellence of the practice	<p>The programme has been planned according to the main policy objectives defined by the Emilia-Romagna region, so it answers to:</p> <ul style="list-style-type: none"> ○ the need of competitiveness of the Emilia Romagna Region by increasing collaborations between academic research and business ○ the need for researchers to strengthen their professional identity as new industrial career opportunities arise. <p>On the topic of PhDs' training (especially trough the scheme "ASTER DOC"), in 2009 Aster started a cooperation with the Italian National Agency for Innovation finalised to the definition of a training pathways involving all Italian universities.</p> <p>The experience developed with this programme by ASTER allowed it to be leader of a project called "DOCENT- DOCTors in ENTERprise". DOCENT is a 24 month project financed by the European Commission Lifelong Learning Programme – ERASMUS/ Multilateral projects/ Cooperation between Universities and Business. The project aims at enhancing the employability of Phd students in technical-scientific fields, through development, testing and exploitation of:</p> <ul style="list-style-type: none"> • training modules for the improvement of transversal skills, useful to develop the profile of a new industrial researcher able to innovate "inside the enterprise" or "by setting up his/her own businesses"; • models for the integration and coordination of several services currently fragmented in TTOs/KTOs and University Career Centres, in order to allow career and information services to fit better with the specific needs of students of the third cycle

Influence on the region development	The program has influenced regional policies on training for young researchers. Many of the initiatives that the Regional Authority finances in order to make more profitable the contact between PhDs and companies have arisen from this program.
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Name	Master in "Entrepreneurship in the Live Show sector" (Imprenditoria dello spettacolo)
Region	Emilia-Romagna (I)
Promoters	University of Bologna, Department for Music and Performing Arts in collaboration with the Foundation ATER Formazione.(important organization in the performing arts sector promotion and training) The Master is carried out with the support from the Municipality of Bologna, ATER (Emilia-Romagna Theatres Association), AGIS-Emilia-Romagna, and cooperative firms association Legacoop.
Contacts	Prof. Paola Bignami Stella Department for Music and Live Show University of Bologna Via Barberia 4 Bologna Email: paola.bignami@unibo.it
Website	http://www.unibo.it/Portale/Offerta+formativa/Master/2011-2012/Imprenditoria dello spettacolo.htm
Sector focus	Theatre Dance Music
Target groups	Students Live show organisations
Time Span	1 year duration (January 2011 to January 2012) The Master is organised on a yearly basis since 1990.
Main objectives	To educate experts in organisation and administration in the field of live show (theatre, music, dance).
Main financing sources	Inscription fees (5000 Euro per student) Other financing
Description	The Master in "Live Show entrepreneurship" is a 12 month Master's degree available for graduates in letters, economy, culture, political sciences, law, other degrees. The Master has a 1500 hours duration; 1000 hours in didactic classes and 500 hours as training period in an organisation active in live show. The aim of master contents is to develop competences responding to National and International markets requests. Experts will be able 1) to operate in the areas of production, distribution and promotion, 2) to plan activities according to cultural, social and economic policy requirements.
Working mechanisms and main	The Master is developed in close collaboration with important actors in the live show fields:

services	<ul style="list-style-type: none"> • Important entrepreneurs in the field contribute in the education curriculum • Important organisations from the field host students during their training period
Tools	
Outputs	Each year since 1990, the master educates 20 to 25 students.
Excellence of the practice	The Master has been organised on a yearly basis for over 20 years. The Master is developed both by the Department of Music and Live Show together with an important organisation in the field of Live Show (Fondazione ATER Formazione - University of Bologna in close collaboration with important actors in the live show fields (theatres, associations, institutions etc.)
Influence on the region development	The Master contributes to favouring competences in cultural organisations in the region and in other areas.

Name	Graduate Degree in Innovation and Organization of Culture and the Arts - GIOCA programme - University of Bologna
Region	Emilia-Romagna (I)
Promoters	University of Bologna, Faculty of Economics.
Contacts	Dr Federica Onofri School of Economics, Piazza Scaravilli 2, Bologna Tel. +39 051 2098897 Fax. +39 051 2098003 Email: federica.onofri@unibo.it
Website	http://corsi.unibo.it/gioca/Pages/default.aspx
Sector focus	Culture and Arts
Target groups	Undergraduate student
Time Span	The master degree lasts 2 years and is organised on a yearly basis since 2006.
Main objectives	To educate experts in organisation and administration in the field of live show (theatre, music, dance).
Main financing sources	Inscription fees (3.900 Euro per year, per student) Other financing
Description	<p>Graduates of this course will be professionals with advanced management training, qualified for working in cultural organisations and able to collaborate competently with the artistic-cultural dimension of these organisations. The degree programme thus responds to a specific market demand for professionals:</p> <ul style="list-style-type: none"> - working in cultural organizations; - acting as consultants for cultural organisations; - acting as interface between public or private organisations to support the activities of individual organisations (local bodies, sponsors, foundations etc.).

	<p>The degree program has the following specific learning outcomes:</p> <ul style="list-style-type: none"> - to attribute specific management knowledge within cultural organisations, using an interdisciplinary approach. The program aims to establish professional skills for working in the creative industries and in the cultural and artistic institutions in both the public and the private sector. - to provide the necessary skills for managing and planning cultural institutions and organisations. - to understand the role of art and cultural products in public policy and the broader subject of economic and corporate development and renewal. - to identify the main innovations (with specific reference to cultural organisations) from a managerial point of view, understanding governance structures, operative mechanisms and corporate processes. - to provide a methodology for the analysis and understanding of arts and culture through the creation process of value, cultural consumption, public policies and privatisation, and outsourcing and reorganisation tools. - to enhance understanding of corporate dynamics and the impact of technology in creative industries. - to develop strong team-working and problem-solving abilities and creativity and thus innovative project-development abilities and solutions for cultural institutions and organisations. <p>The study program aims to develop a sound background in business studies and humanities, in particular in sociology, urban planning, art history and music.</p> <p>Operation management course units for the individual cultural sectors give students direct involvement in the management of cultural organizations and the possibility to analyse real life problems.</p>
Working mechanisms and main services	<p>The course is a rigorous full-time Programme organised in:</p> <ul style="list-style-type: none"> - lectures on various topics: culture economics, management, project management, fund raising, networking and knowledge management in the arts etc. - tutorials: the tutorials regard management in specific cultural industries (music, theatre, film industry etc.) - internship: students are required to complete a full-time internship during the last semester of the Program. The internships can take place in Italy or abroad. The project work, elaborated under a supervisor's guidance, will be the topic of the final thesis.
Tools	<p>Lectures Tutorials Internships</p>
Outputs	<p>Around 30 students graduate each year. Around half of them are non EU citizens.</p>

<p>Excellence of the practice</p>	<p>The GIOCA programme is based on an interdisciplinary approach comprising business studies (management, economics and law) and humanities. Museums and cultural heritage are the focus of the course but other kinds of cultural organisations are also studied. The less distinct managerial roles in these sectors are compared with other more “technical” economic areas, and it thus makes it easier to apply experiences and knowledge to various art fields (visual arts, entertainment, music etc.).</p> <p>The course is also characterized by its international approach. It is one of the experimental international degrees promoted by the University of Bologna. The course is taught entirely in English and there are foreigners among the students and teaching staff. In addition, students are encouraged to carry out work experience abroad.</p> <p>Thanks to this internationalisation process, the GIOCA program aims to become one of the most recognized players in high-quality university education at a European and international level, and it is part of a network of international degrees in the arts management field. The program is also involved in the spreading of university qualifications in arts management, taking part in the Double Degree Program with the Carnegie Mellon University of Pittsburgh.</p>
<p>Influence on the region development</p>	<p>The Master contributes to provide managers for culture organisations in Emilia-Romagna, in Italy and also abroad.</p>