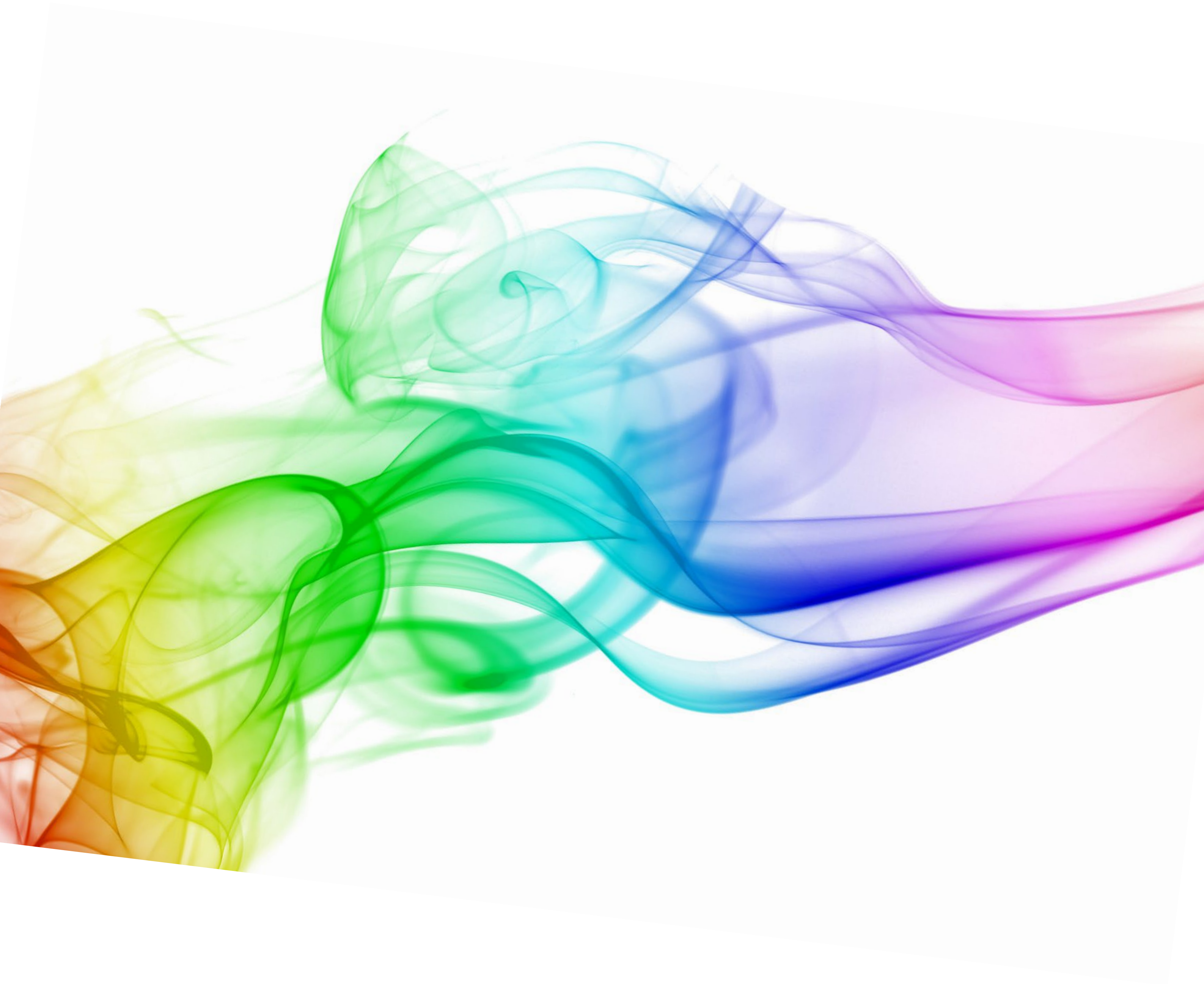
SPECTRA

STIMULATING PERFORMANCE IN CREATIVE TERRITORIES AND REGIONAL ACTORS

T2.1 Defining the Baseline: Taxonomy of Creative Ecosystems



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Deliverable Summary

Deliverable:

T2.1 Defining the Baseline: Taxonomy of Creative Ecosystems

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A. Peters (CREW)

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Project Summary

SPECTRA project (Stimulating Performance of Ecosystems in Creative Territories and Regional Actors) embodies the collaborative vision of 8 partners (including 3 associate partners) representing 4 regional ecosystems – an emerging innovator region in Bulgaria (North-Central-BG), moderate innovator region in Ireland (Northern and Western), together with lead innovator regions in Denmark (Hovedstaden) and Germany (Berlin).

SPECTRA will put in place key ingredients required to equip the emerging innovator and moderate innovator regions with a more responsive, resilient ecosystem, capable of growing and developing coordinated responses to many challenges creative industries are facing to achieve the National and European goals. It will harness and multiply the power of individual ecosystem initiatives to create a collaboration driven innovation network - resulting in enhanced, more inter-connected, diverse, gender-responsive, competitive, and sustainable ecosystems.

Additionally, SPECTRA will include activities directed at the creative innovation eco-system stakeholders that will encourage development of joint strategies and amplify collaboration. They will benefit extensively from the advanced business support models developed to fast-track start-ups, produce scale-ups, avail of best practice, new systems, structures, and tools, as well as data-driven & carbon-reducing challenge-based innovation methods, case studies, role models, cross-sectoral and intra-territorial learning - creating an excess of 300 new linkages.

In addition to addressing the relevant project call and work programme contexts, the National, Regional and EU Policy framework and its associated strategies and objectives, the overall concept for SPECTRA has been conceived around formulating coordination and support measures based on the preliminary needs analysis of the 3 key primary audiences: ecosystems as a whole (as catalysts for businesses to thrive and drivers of innovation), SMEs, start-ups and scale-ups (entrepreneurs/solution providers and key beneficiaries), and other ecosystem stakeholders (public organisations, HEIs, researchers, clusters, incubators, accelerators, etc.).

All 3 audiences are perceived beneficiaries of the SPECTRA outcomes, with the proposed project removing obstacles to achieving expected impacts (further elaborated on below, including other target audiences).

SPECTRA is funded through EISMEA.I – Innovation Ecosystems, SMP/Entrepreneurship and Consumers strand, EU and place-based Innovation Ecosystems Call HORIZON-EIE-2022-CONNECT-01-01: Towards more inclusive networks and initiatives in European innovation ecosystems, under Horizon Europe Lump Sum GRANT AGREEMENT No. 101097000.

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1 Deliverable Description

This deliverable is an output of activities under WP2 'Capacity Building of Moderate and Emerging Innovator Territories' that has the following objectives:

- Establish the needs analysis and the taxonomy ecosystem baseline of target moderate and emerging innovator regions to formulate a process for advancing and strengthening the skills, instincts, abilities, processes, and resources based on exchange with initiatives from leader innovation regions.
- Identify and examine best practice and key future innovation directions and trends towards Creative Industry 5.0
- Engage in intra-territorial learning and knowledge exchange, facilitating replication and new linkages.
- Undertake in-depth research and analysis to identify case studies for ecosystem development and role models of ecosystem players, to support advancement of innovation supports for creative industry sector.

It concerns specifically the production of a Taxonomy of creative ecosystems by the SPECTRA partnership (and where identified as relevant - other examples outside the partnership), taking into account activities delivered by all partners and classifying them according to type.

This will set the context for the different approaches to be tested, giving an indication of areas to be addressed and replicability of good practices. These will be compared and consolidated to ensure exchange.

The project will draw lessons from this exercise to inform other activities. It will develop a specification of infrastructure requirements, taxonomy of stakeholders and means of growth, such as internationalisation. Common digital platform, drawing on the lessons of existing projects and methodologies for 'cross contamination' of start-ups ecosystems and means of integration of acceleration services with cross-sector, intensive and niche market approaches will be examined.

The value of a comprehensive, ecosystem-wide taxonomy is derived from the capabilities it enables, both for internal knowledge retrieval, reuse, and management and to support externally facing (start-up facing) features such as search, orientation, identification, customization, and dynamic presentation of business supports and other interventions across channels.

2 Introduction

The creative economy is one of the world's faster growing sectors, with the creative industries acting as a driver for employment and innovation.[1] The Creative Economy Outlook Report from UNCTAD 2022 estimates that in 2020, creative goods and services represented 3 and 21 percent of total exports and 6.2 percent of all employment, generating upwards of 50 million jobs worldwide.[2]

While the creative economy has become a sector of growing importance, the COVID 19 pandemic had a significant effect on the creative industries, highlighting the vulnerabilities within the sector.[3]

The SPECTRA project aims to acknowledge the common challenges facing creative ecosystems and, in utilising joint strategies, aims to help partners build capacities to decrease the innovation gap in Europe between leading innovator regions and those that are designated as emerging and moderate regions of innovation. In order to develop an intra-territorial approach to knowledge exchange and to formulate a process for advancing and strengthening the skills, instincts and abilities of regional partners, it is imperative that a baseline taxonomy of the creative ecosystem in each region be determined.

Defining and measuring the creative industries is a well-documented challenge. There are varying frameworks for classification of the creative and cultural sector, such as 2009 UNESCO Framework for Cultural Statistics, 2015 WIPO Guide to Surveying the Economic Contribution of the Copyright-Based Industries, UK's Department of Culture, Media and Sport (DCMS), and the EU Classification of Creative Industries; UNCTAD Creative Economy Outlook Report notes that the definitions of creative economy are diverse as it is often tied to the regional "culture, economic structures, statistical methodologies and classifications used"[4].

Moreover, "the fast-changing and interdisciplinary nature of the CCIs sector, the rapid development of technologies (digitalisation) and emergence of new sectors make it even more difficult to define CCIs as well."[5]

This taxonomy report aims to define the creative ecosystems within each partner region based on the definitions used both regionally and nationally, in policy and in practice, and with consideration given to classifications utilised by various stakeholder groups.

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[1] UNCTAD Creative Economy Outlook Report 2022. Available from: https://unctad.org/system/files/official-document/ditctsce2022d1_en.pdf
[2] UNCTAD Creative Economy Outlook Report 2022
[3] UNCTAD Creative Economy Outlook Report 2022
[4] UNCTAD Creative Economy Outlook Report 2022
[5] Interreg Europe CRE:HUB Project, Joint Report 2019. Available from: https://www.regione.fvg.it/rafvg/export/sites/default/RAFVG/cultura-sport/progetti-bandi-europei/FOGLIA2/allegati/Joint_report.pdf

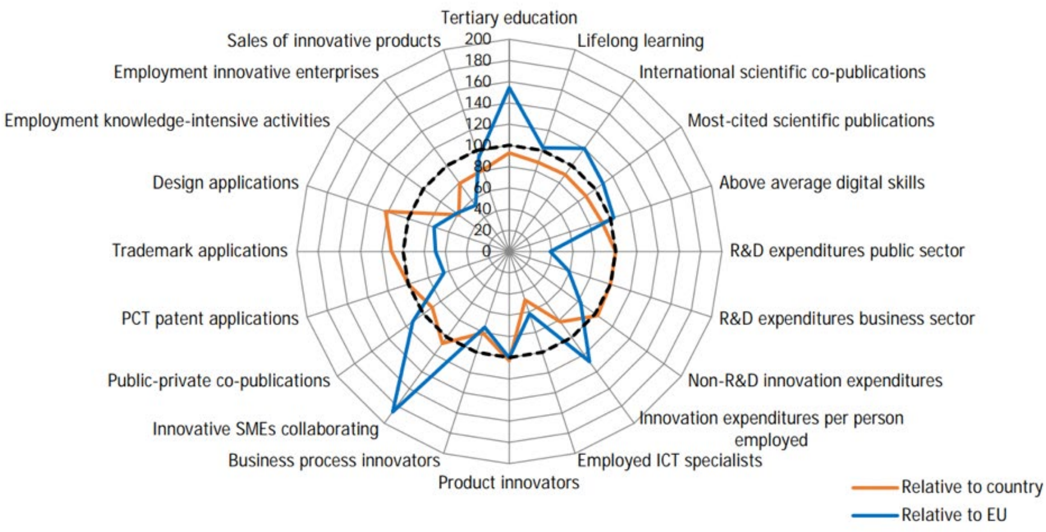
3 Regions of Innovation Overview

The SPECTRA project utilises the designation of partner regions based on the Regional Innovation Scoreboard (RIS), a regional extension of the European Innovation Scoreboard. RIS assesses the performance of European regions on a limited number of indicators, and is a comparative assessment across 240 regions. There are four performance groups, with each country and region grouped accordingly – Innovation Leaders, Strong Innovators, Moderate Innovators and Emerging Innovators. SPECTRA project partners include two (2) Innovation Leader regions – Hovedstaden, Denmark (DK01), Berlin, Germany (DE3), one (1) region of moderate innovation – Northern and Western Ireland (IE04), and one (1) emerging innovator region – Severen tsentralen, Bulgaria (BG32). Of note, both Ireland and Germany are designated as Strong Innovator countries according to the European Innovation Scoreboard however, at a regional level, Berlin is an innovation leader and Northern & Western is a moderate innovator.

The radar graphs below from RIS 2021[6] show the relative strengths of the region in comparison to the performance of other regions in the country (orange lines) and compared to the EU (blue lines). There are key insights that can be extrapolated from performance graphs that can provide an important foundation for understanding regional activities and best practices in the context of SPECTRA.
Northern and Western Ireland (IE04) and Severen tsentralen, Bulgaria (BG32) both show relative weaknesses in R&D expenditures in the public sector, with IE04 showing relative strengths in relation to innovative SMEs collaborating and tertiary education, and BG32 shows strengths in both design and trademark applications. The Innovation Leader regions, Berlin (DE3) and Hovedstaden (DK01), both show relative strengths in R&D expenditures in the public sector, indicating that this can be an effective focus area for knowledge sharing between partners. Additionally, these regions demonstrate strengths in Lifelong Learning and Employed ICT Specialists.

In order to decrease the innovation gap in the moderate and emerging innovator regions, by way of exchange, facilitating replication and new linkages, the RIS assessment provides an important context for case studies, best practices and a strategic approach to capacity building.

Figure 1: Northern and Western Region, Ireland: Moderate Innovator



[6] Regional Innovation Scoreboard, 2021. Regional profiles available from: https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/regional-innovation-scoreboard_en

Figure 2: Severen *tsentralen* region, Bulgaria: Emerging Innovator

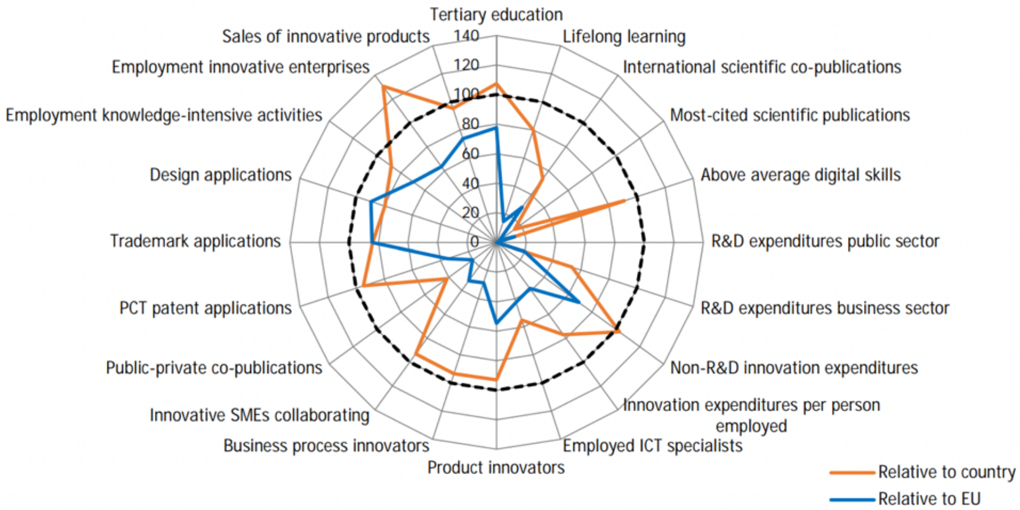


Figure 3: Hovedstaden region, Denmark: Innovation Leader

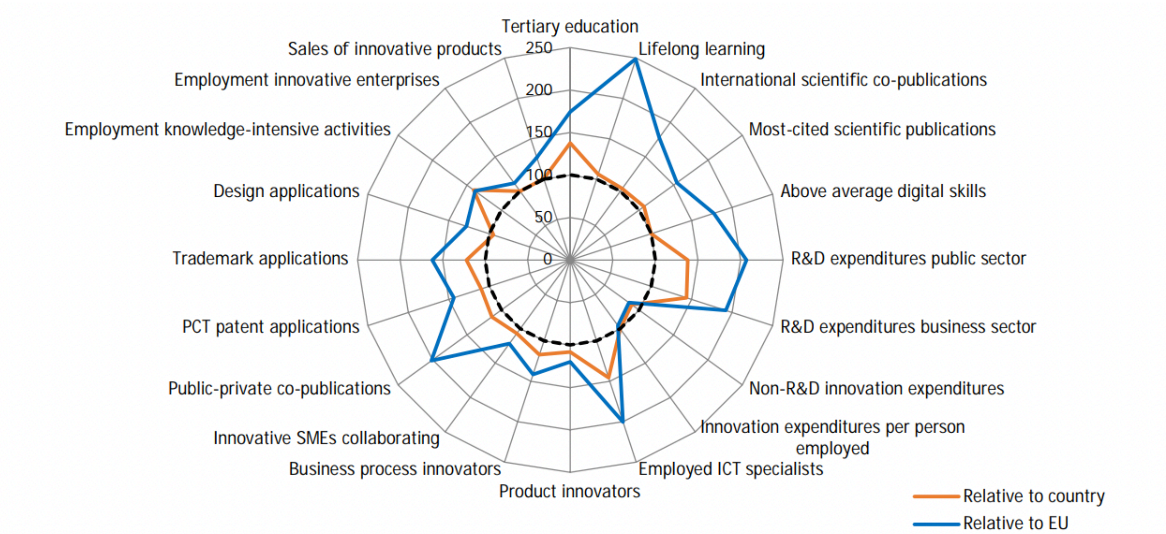
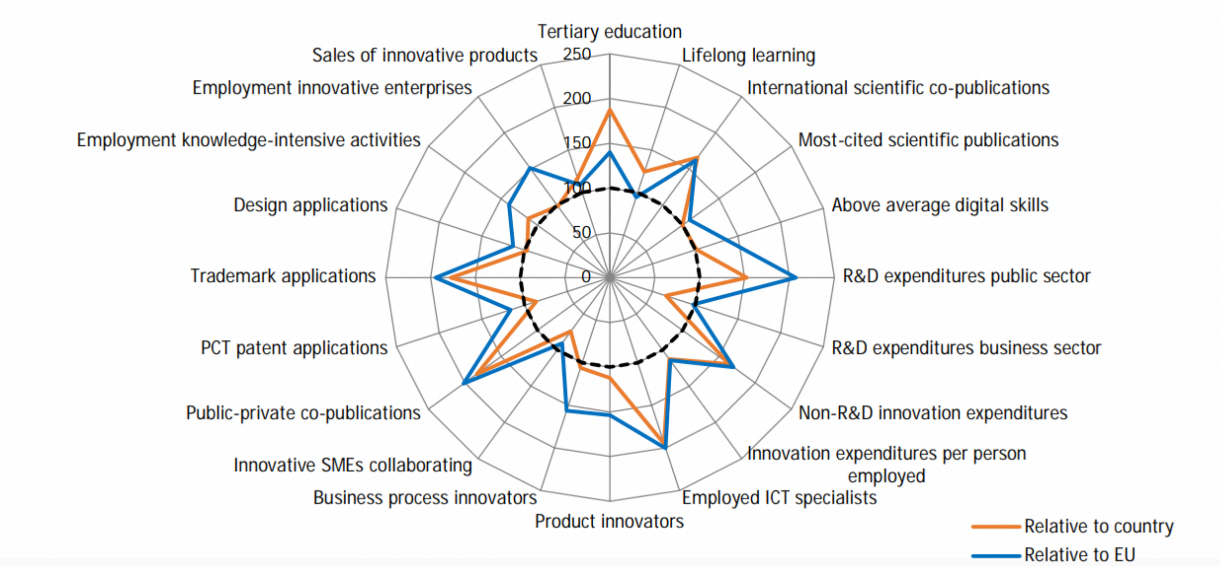


Figure 4: Berlin region, Germany: Innovation Leader



4 Methodology

The development of a taxonomy of creative ecosystems will set the context for the various approaches to be tested throughout this project and will highlight core capacities to be compared and consolidated to ensure exchange.

Each partner organisation completed a Regional Assessment (Section 5) that examined the classification of creative industries in their region, and where possible similarities and/or differences with a national approach to classification.

The creative ecosystem in each region was explored in relation to characteristics and statistics of the sector, key stakeholders, policy instruments, and a SWOT analysis. Each regional profile can be found in Section 5.

In addition to regional profiles, relevant reports were consulted in an effort to note trends in each region, and to provide supplemental research where possible. Regional assessments were consolidated, and a summary of activities and commonalities can be found in Section 6, grouped in thematic actions.

Section 7 indicates opportunities for replicability of good practices, also grouping thematically. Sections 6 and 7 provide an indicative framework for developing and expanding upon knowledge exchange throughout the SPECTRA project.

5 Regional Reporting

5.1 Emerging Innovator Region: Bulgaria

5.1.1 Classification of Creative Industries

According to National Classification of Economic Activities in Bulgaria[7] the economic activities in the scope of creative activities are categorised in the following list:

- Publishing industry - book publishing, periodicals (newspapers, magazines) and printing;
- Software industry including databases and computer games;
- Music industry - works with and without text, recording industry;
- Visual arts - painting, graphics, sculpture, applied and experimental arts and galleries;
- Performing Arts - dramatic, musical-dramatic and pantomime, choreographic - theatre, opera, ballet, dance and circus arts, show and other entertainment activities, and creative making activities, sets, costumes, etc.
- Media industry - electronic media such as radio, television internet etc.;
- Film industry - production of films and other audio-visual works and production activities;
- Photographic industry - art, advertising and information photography;
- Advertising Industry;
- Architecture, including interior furnishing and landscape activities;
- Design - industrial, furniture fashion, graphic, media, web design, etc.;
- Cultural heritage - tangible cultural heritage, intangible cultural heritage including folklore and folk arts and crafts and associated traditional knowledge, festivals and cultural events industry.

5.1.2 Overview of Creative Ecosystem

The cultural and creative industries in Bulgaria are among the most dynamically developing sectors of the Bulgarian economy. By 2020, 8% of employees work in creative enterprises and generate 10% of GDP. Created by people with professional qualifications and skills above the national average, high-quality goods and services of the creative industries stimulate consumption, contribute to the development of Bulgarian culture and science and contribute to the further establishment of national identity. The specific economic activities within the creative sector do not develop evenly.

The investment figures representing the venture capital and private equity investment in the creative industries in 2010-2020 show that at a national level, VC investment is the highest in design (product design and fashion) at €9M followed by news media and broadcasting at €5M and video games at €4M.[8]

Out of 36 economic sectors in the Bulgarian economy, culture ranks eighth in value added. The economic contribution of the sector is about 3.8%, with the leading drivers being the cultural heritage and the film industry. Analysis of the data "leads to the conclusion that culture, cultural and creative industries, cultural heritage and cultural tourism are sectors with serious economic significance and positive

[7] https://www.nsi.bg/en

[8] E Guide for Good Practices in the Creative Economies. Available from: http://www.cci.dobrich.net/wp-content/uploads/2022/02/MANUAL-CCI-EN.pdf

dynamics."[9]. In this regard, it is planned to introduce new instruments for alternative financing such as: microcredit, securities (venture capital, various forms of investment funds, some forms of social venture capital), as well as full use of funding opportunities for the horizontal and operational programs of the EU.

In Severen tsentralen Region, in recent years there has been a noticeable development of companies in the field of mechatronics, supported by available research and educational capacity. There are basic ecosystem components to stimulate capacity development in creative industries. The University of Ruse has eight faculties, including informatics and ICT.

The data shows that for Ruse District the leading creative industries are architecture and software[10]

The legislation of the Republic of Bulgaria regulates issues, requirements, regulations for carrying out activities in the creative industry, as well as protection mechanisms regarding rights.

The laws directly and indirectly related to the creative industry are:

- Act on development and Protection of Culture: This law sets out the basic principles and priorities of the national cultural policy, cultural organizations and protection bodies of culture, of its national identity and the ways of supporting and financing cultural activities and artists.
- Act on copyright and related Rights which governs copyright rights and relations rights in creative products. Protects and regulates provisions relating to intellectual property and related copyright.
- Act on small and medium-sized enterprises: Regulates the legal form of registration of organizations in the creative industries, their rights and obligations, mechanisms for promoting development, etc.
- Act on Cultural Heritage: It focuses on cultural heritage, addressing segments of the development and functioning of creative industries. This law regulates the preservation and protection of cultural heritage of the Republic of Bulgaria.

The Ministry of Economy and the Ministry of Culture of Bulgaria are representatives of the executive branch working intensively in the field of creative industries, developing plans to accelerate the growth of the creative industries.[11]

The Bulgarian local authorities have a strong impact on the creative industries through their activities in planning, licensing, regulation, introduction and compliance with trading standards, and work to develop a trained workforce and commission public procurement to implement the municipal plans. The important role of local authorities also places them in a position to take responsibility to create an enabling environment that aims at sustainable growth of creative industries.

The following can be summarized as key activities in the field of creative industries in Bulgaria:

- Film and Television Production: Bulgaria has been a popular filming location for international productions due to its diverse landscapes and cost-effective production facilities. Film and television production companies engage in various activities such as script development, pre-production planning, filming, post-production, and distribution.
- Music and Performing Arts: The music industry in Bulgaria includes various activities such as music production, recording, live performances, and music publishing. Performing arts companies engage in theater productions, ballet, contemporary dance, and music concerts.

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[9] E Guide for Good Practices in the Creative Economies

[10] Available from: https://tinyurl.com/28jzreur

[11] Available from: https://www.culturalpolicies.net/country_profile/bulgaria-1-1/

- Crafts and Artisanal Production: Bulgaria has a rich tradition of craftsmanship and artisanal production. Artisans engage in activities such as pottery, woodworking, textiles, jewelry-making, and traditional crafts. These products are often sold through galleries, craft markets, and online platforms.
- Digital Media and Content Creation: With the rise of digital platforms, content creators in Bulgaria produce various forms of digital media, including online videos, podcasts, photography, and writing. They generate engaging content for social media, websites, and streaming platforms.
- Cultural Events and Festivals: Bulgaria hosts numerous cultural events and festivals throughout the year, including film festivals, music festivals, art exhibitions, and cultural celebrations. These events showcase the creativity and talent of artists, filmmakers, musicians, and performers.

In 2013, Ruse Municipality developed an Investment and City Strategy & Marketing Plan 2014-2020, which provides for the construction of a Centre of Competence and Science and Technology Development and Creative Industries Development Centre. The strategy envisages Ruse to become a city of knowledge and innovation by 2025, in the context of the EU's strategic vision to promote a smart, sustainable and inclusive growth.[12] The strategy has been developed within the framework of the project "Ruse Municipality - investment attractive and energy independent", which is implemented with the financial support of "Administrative Capacity" 2007-2013.

In Bulgaria, the cultural and creative industries create a serious economic output. Over the last decade they have gained recognition as a specific economic field with great dynamism, with social dimensions, creating partnership networks between the public sector and private business. Cultural and creative industries are a catalyst for the development of new technologies and innovations in the cultural and industrial sectors and are an integral part of education and modern regional and urban policies.

In 2021 a cooperation agreement between the Ministry of Economy, together with the Ministry of Tourism and the Ministry of Culture was signed by the three ministers in charge. This document marks the beginning of joint efforts for the development of Bulgaria's cultural, creative and recreational industries. This agreement will enable to increase competitiveness in these priority businesses and industries for the next programming period.

The creative industry is part not only of all smart specialisation strategies but also of the strategy for the development of SMEs for the 2021-2027 period.[13]

In recent years Ruse has become an attractive spot for companies producing components for the largest international automotive corporations which generate strong cross sectoral links between the creative industry and automotive sector attracting specialist in industrial design and software developers. The other major manufacturing sector in the region is clothing. It also directly generates links with the creative industry as it uses specialists in fashion design.

5.1.3 Select Stakeholders

Government institutions- Ministry of Culture Bulgaria, Ministry of Economy, Ministry of Tourism, Ministry of Innovation and Growth

Regional Institutions- Municipality of Ruse, Ruse Free Spirit City Municipal Foundation, Local

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[12] Investment Profile of Ruse Municipality. Available from: https://obshtinaruse.bg/uploads/files/2_Ruse%20Investment%20Profile_210x297_EN_Web.pdf

[13] Available from: https://www.eufunds.bg/sites/default/files/uploads/oic/docs/2022-09/S3-MIG-12Sept2022%20-%20%D0%93%D0%B0%D0%B1%D1%80%D0%BE%D0%B2%D0%BE.pdf

government office Ruse Art, District Information Point, Tourist Information Centre - Ruse

Business Support Organisations- Ruse Chamber of commerce and Industry, Bulgarian Romanian Chamber of commerce and Industry , Business support centre for small and medium enterprises, Ruse Industrial Association, Construction Chamber - Regional Office Ruse, BNI Prista (part of Business Network International), Business Innovation Centre INNOBRIDGE (EU BIC certified), Chamber of Architects in Bulgaria -Ruse Regional Body, Chamber of Engineers in the Investment

Financial Support Stakeholders- Ruse Free Spirit City Municipal Foundation, Local government office Ruse Art, Enterprise Europe Network**-**Ruse

Educational Institutions - University of Ruse, Ruse National School of Arts, Vocational High School of Clothing and Design

Associations and Enterprises - Association "European Spaces 21", Creative Center Ruse, Danube Association of Masters of Folk and Artistic Crafts, Ruse; Bulgarian Fashion Association, Ruse; Start-up Factory – Ruse; Pristis Foundation; Open Society Club Ruse; Cultural Establishments International Elias Canetti Society – Ruse; Lyuben Karavelov Regional Library, Ruse; Ruse Art Gallery, Drama Theatre "Sava Ognyanov", Ruse State Opera Ruse, Community centers in Ruse and Ruse district

5.1.4 SWOT Analysis

STRENGTHS	▪ Dynamically developing sector ▪ Culture of recurring high-level of investment in new technologies and in increasing staff skills and capacities ▪ Vibrant domestic market and high-level of internationalization ▪ Access to the EU Markets and the Middle East ▪ Strong public sector ▪ High profitability ▪ Quality education and training programmes in some sub-branches e.g., Design, programming etc. ▪ International cooperation (NGOs) established. ▪ Events and awards achieved. ▪ Strong culture and historic tradition, Rich cultural heritage and internationally recognised professionals.
WEAKNESSES	▪ Poor investment capacity ▪ Lack of enough key competences and professional smart specialization, know-how transfers by international networks and partnerships, sufficient management skills in creative management and communication ▪ "Brain-drain" of creative talents/persons with creative entrepreneurial skills ▪ Severely constrained access to finance for creative entrepreneurs and CCI businesses ▪ Very poor awareness of EU funding opportunities and limited skill and capacities how to access these financial sources. ▪ Poor collaboration between researchers and CCIs businesses. ▪ Micro-companies with small value-added generating with low export orientation ▪ Lack of strategic framework for CCI policy and result oriented operational planning. ▪ Missing supporting infrastructure in some branches ▪ Lack of specialised educational programmes in vocational and high education ▪ Lack of smart specialization ("Everybody doing everything")

	▪ Poor level of digitalization of the management processes ▪ Lack of promotion strategy and local branding ▪ Uneven relations in the value chain and competition based on price. ▪ Lack of critical mass (orientation on domestic market only) ▪ The physical infrastructure of the Performing Arts is in need of investment and renewal - there is no close cooperation between Art schools and institutions. ▪ Dependent on the country's economic situation and budgetary expenses on culture. ▪ Strong concentration of the CCIs in the capital centre ▪ Service rates aren't high in the local market and the revenues aren't sufficient to safeguard growth of the companies
OPPORTUNITIES	▪ Increase recognition of need education on IPR and CCIs management and creative entrepreneurship to be developed; ▪ Geographical, natural, cultural and historical ground for extensive development of CCIs; ▪ Opportunities for regional, cross-border or local specialization. ▪ Easy adaptive to the dynamic changes and trends HR in the sector. ▪ Developing capacity of NGOs to promote business models and competences for CCIs and creative entrepreneurship, as well as R&D capacity. ▪ Availability of creative entrepreneurs, lack of EU funds for CCIs. ▪ Promoting CCI clusters and establishing creative incubators and hubs ▪ Increasing demand for creative products ▪ Increasing demand for CCIs products& services ▪ Comprehensive EU policy supporting of CCI at local, regional, national, and EU levels. ▪ Linking culture with other sectors ▪ Self-employment and brand-new jobs development ▪ Use of CCIs for the restructuring of professionals with better and competitive renumeration ▪ A large local and international demand for media products
THREATS	▪ Unenforced IPR infringements and "stealing of ideas"; poor protection of intellectual property. ▪ Lack of clear implications of the CCIs in the regulatory frameworks concerning the intersectoral links. ▪ Lack of Internet legislation in Bulgaria. Internet law/regulations. ▪ High level of bureaucracy and corruption. ▪ Depopulation and aging population. ▪ Established monopolies in certain CCI sectors ▪ Increasing "brain drain" due to uncompetitive compensation of creative talent and constraining creativity by favoring technical implementation CCI products/services, migration of talent abroad. ▪ Economic crisis (problems in private sector & lack of public funds) ▪ Rapidly changing technologies ▪ The best local specialists are employed by competitive international companies in the capital, thus creating high deficiency in the regions. ▪ The market for digital press and books is growing, so the traditional market share will diminish in the future. ▪ Diminishing income from advertising clients; diminishing national donations for publishing, libraries and author remunerations. ▪ National statistics system doesn't identify design as a sector, so its results are hidden under other statistical codes and aren't clearly identified.

5.1.5 Notable Practices

Creative Center Ruse: Originally established as a project of The Human Resources Development Agency in 2019 as a hall with high-tech equipment for training in the creative industries. Today, the Creative Center Ruse has become a gathering place for the city's young creative community, a place to exchange ideas and practice what they have learned, and annually organizes a number of training programmes in animation, game creation, 3D, and graphic design.

Roman Market, Ancient Festival, Ruse: The festival was organized for the first time in 2012. The program includes re-enactments of Roman rituals, ancient Roman fashion, gladiato-rial games, demonstrations of Roman and barbarian armament and battles from the period of the Roman-Dacian and Roman- Gothic wars. The traditional market includes Roman cuisine, jewelry, and decorations, minting and pottery. Participants are reenactors and craftsmen from all over Bulgaria as the spectators are part of the show. The event is organized by the Regional Historical Museum Ruse.

The Festival March Music Days: is one of the oldest and most reputed festival stages in Bulgaria, a festival of modern program strategy and high public rating. Founded in 1961 and organized by Ruse Municipality, every year the festival turns the city of Ruse into a real capital of music, a meeting point of top-class musicians from Europe and worldwide. The festival has become a bearer of the prestigious international "European Festival" label, awarded by the European Commission and the European Festivals Association.

Figure 1: Ruse Musical March Days (www.m-festoval.biz)

"Weekend Tourism" Exhibition: The international tourist exhibition entitled Weekend Tourism is conducted annually in Ruse since 2005. The festival of Tourist Entertainment and Animation is also conducted as a part of the schedule within the framework of the Exhibition. The event is one of the most significant tourist events in the Danube region of Bulgaria. Every year over 270 participants from the country and abroad of various tour operators, museums, institutions, municipalities and creative and cultural industries show their potential and their tourist resources to the citizens and the numerous visitors of "Little Vienna".

CreateINNES – Strategic Partnership for Innovation and Business Skills Development in Cultural and Creative Industries Sector project aims to develop an innovative training online programme based on combination of special seminars combined with co-creation sessions that will turn the European creative economy placements into a learning environment for entrepreneurial skills in CCI sector and specifically in visual communication sector.

5.2 Moderate Innovator Region: Ireland

5.2.1 Classification of Creative Industries

The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media defines the creative industries as "industries and occupations which focus on creativity as a means to deliver commercial success, export growth and resilient employment for Ireland", including[14]:

- Advertising and Marketing
- Architecture
- Craft
- Design (areas of design include exhibition, performance, games, graphic, industrial, interior, landscape, product, textiles)
- Fashion
- Film, TV, Vide, Radio and Photography
- IT, Software, Computer Services (further divided into two subcategories)
- Publishing
- Museums, Galleries and Libraries
- Music, Performing and Visual Arts.

It is of note that various national and regional entities describe and categorise the creative industries in various methods depending on reporting aims. For example, Creative Ireland published a Digital Creative Industries Roadmap[15] that categories the sector as:

- Design-based (i.e., industrial design, product design, web design and visual communications, Ui/Ux (User-interface/User-experience) design and software design, service design, and strategic design),
- Digital creative (i.e., games sector, and the post-production/visual effects (VFX) which supports the audio-visual sector, but is also an export service in its own right),
- Content creation industries (i.e., advertising and brand development, but also including new content for commercial social media uses, online distribution and mobile applications ('apps') as well as content for new platforms such as AR/VR/XR Augmented Reality / Virtual Reality / Mixed Reality).

This is of relevance as this categorisation is utilised as part of Creative Ireland funding calls and therefore is an important taxonomy for creative enterprises. Additionally, Culture 2025 includes separate classifications for 'Cultural Heritage' but highlights the inextricable link between culture and creativity in Ireland, and states that the definitions "are intended as working and inclusive definition [...] recognising that culture and creativity are by their nature fluid and evolving."[16]

5.2.2 Overview of Creative Ecosystem

Creative Ireland (CI), situated within the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (DTCAGSM), is a cross-government entity and is the main implementation vehicle for the priorities identified in Culture 2025, the cultural policy published in 2020. Culture 2025 sets out the scope and direction for governmental policy in the broad cultural sector, with aims including the Creative Ireland Programme (2017-2022, and further extended to 2027) and commitments to improved funding

[14] Culture 2025: A National Cultural Policy Framework to 2025. Available from: https://www.gov.ie/en/publication/62616d-culture-2025/
[15] Digital Creative Industries Roadmap. Available from: https://www.creativeireland.gov.ie/en/news/creative-industries-roadmap/
[16] Culture 2025: A National Cultural Policy Framework to 2025

structures, support for culture at home and abroad, language and heritage policies, and a national biodiversity action plan.[17] Creative Ireland engages with regional bodies in the implementation of its programme.

Recent creative industry reports from various national agencies indicate significant economic value and growth potential across key sectors of the creative economy. The Design and Crafts Council of Ireland reported that, in 2019, the craft and design intensive sector generated €2.9 billion in Gross Value Added, supported 54,000 employees, and includes 18,000 enterprises in the sector making it the 8th largest sector in Ireland.[18] The report follows to project the potential to employ 100,000 people and generate almost €14 billion in turnover by 2026.

Similarly, Screen Ireland reported in 2016 that the audiovisual sector generated €1.05 billion in Gross Value Added, supported nearly 17,000 employees of which 62% was direct employment. Projected growth at the time suggested a doubling of turnover by 2021, increased export, and greater inward investment (Economic Analysis of the Audiovisual Sector in the Republic of Ireland).

Regionally, the Northern and Western region of Ireland is comprised of eight countries and represents 36% of Ireland's population. There is a strong foundation for education and training with two universities - University of Galway and Atlantic Technological University which includes campuses extending from Donegal to Galway, as well as Education and Training Boards across the region. Dominant industries include Tourism, Agriculture, Life Sciences and Big Data/Analytics with CreaTech identified as an emerging industry (WDC, 2022).

Creative specialisms in the region are Design, Craft, Music, Film/TV/Radio, Gaming and Performing/Visual Arts. The region hosts a number of internationally recognised creative and cultural festival such as the Galway International Arts Festival[19], Macnas[20], Baboro International Arts Festival for Children[21], Film Fleadh[22] and many others; Galway was designated as the European Capital of Culture in 2020 and is also a UNESCO City of Film (designated 2014). The creative economy is considered intrinsic to the region and community, as per the Northern and Western Regional Assembly (NWRA) Regional Spatial and Economic Strategy (RSES)[23] and the regional Smart Specialization Strategy[24].

There are two regional enterprise plans that impact the region: the West and Nort West. The West Regional Enterprise Plan to 2024 lists as strategic objective 2: "Strengthen and harness the cultural and creative sector to attract new investment, commercialisation and collaboration opportunities – This objective includes scaling of CREW REDF project[25], to act as hub and spoke across the region, developing creative centres of excellent such as An Bealach Roscommon, develop clustering of the creative and cultural sector to capitalise on emerging development in immersive technology and animation, collaboration between the industry, academia and researchers, supporting commercial exploitation of creative/cultural IP."[26]

[17] Culture 2025: A National Cultural Policy Framework to 2025
[18] DCCI Report on Economic Potential. Available from: https://www.dcci.ie/design-and-crafts-council-ireland-launches-new-report-on-the-economic-potential-of-sector/
[19] https://www.giaf.ie/
[20] https://www.macnas.com/
[21] https://www.baboro.ie/
[22] https://www.galwayfilmfleadh.com/
[23] https://www.nwra.ie/rses/
[24] https://enterprise.gov.ie/en/publications/publication-files/national-smart-specialisation-strategy-for-innovation-2022-2027.pdf
[25] https://crewdigital.ie/
[26] West Regional Enterprise Plan to 2024. Available from: https://enterprise.gov.ie/en/publications/west-regional-enterprise-plan-to-2024.html

Additionally, other objective of this and the Northwest Regional Enterprise Plan include the development of regional entrepreneurship and innovation ecosystem, green transformation, cross border relationships in the enterprise ecosystem, objectives all of which impact and include the creative industries.

Within the region, the Western Development Commission reported in 2022 that indicative data shows the creative economy constitutes a significant proportion of the activity nationally.

- 50% Audiovisual studios
- 46% Games companies
- 27% Craft and Design Companies
- 20% Film and TV production companies
- 16% Literary publishers
- 15% Commercial music brands
- 10% Animation studios

The region is an established tech cluster, and this presents a unique opportunity for an emerging CreaTech (Creative Technology) industry. Addressing the field where technology enables the creative sector to produce new services, products or experiences, or vice versa; it covers the commercial and cultural possibilities of artificial intelligence (AI), Machine Learning, media tech, immersive design and AR/VR/XR, and other emerging sectors. The Western Development Commission set out a roadmap to deliver the CreaTech region by 2027.[27] A recent extension of a tax incentive to include digital game development is indicative of the national strategy towards fostering CreaTech enterprises.

In tandem, the region is well positioned for cross sectoral activity with the creative industries representing an integral element of the product and service supply chain in entertainment, tourism, pharma, med tech, fin tech, education, health, non-profit cultural and arts, retail, manufacturing, construction, energy, public sector among others.[28]

5.2.3 Select Stakeholders

Government departments and Creative Ireland- Department of An Taoiseach; Department of Tourism, Culture, Arts, Gaeltacht, Sport, Media/Creative Ireland; Department of Enterprise, Trade and Employment; Department of Foreign Affairs

Industry and enterprise enablers- Enterprise Ireland and EI Regional Offices, Local Enterprise Offices, Regional Enterprise Initiatives (Western Development Commission), Local Authorities, Atlantic Economic Corridor Offices, Film Offices, IDA regional offices, Irish Venture Capital Association, RDI Accelerate Consortium (University of Galway, University of Limerick, Atlantic Technological University, University of Ulster), Regional Skills Offices, Scale Ireland, Skillnet, Udaras na Gaeltachta, Connected Hubs

Creative industries Enterprises and advocacy agents- AIM Ireland, Animation Ireland, Ardan, Arts Council of Ireland, Design and Crafts Council of Ireland, Irish Business and Employers Confederation, Imirt Irish Game Makers, Institute of Advertisers in Ireland, Institute of Designers in Ireland, Irish Music rights Organisation, Irish Recorded Music Association, Irish Visual Artists Rights Organisation, Music and Entertainment Association of Ireland, Phonographic Performance Ireland, Recorded Artists and Performers, Royal Institute of Architects Ireland, Screen Ireland, Visual Artists Ireland.

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[27] Western Development Commission, Sustainable Enterprise-Creative Economy. March 2022. Available from: https://westerndevelopment.ie/wp-content/uploads/2022/10/WDC-Report-Final_11May2022.pdf
[28] Western Development Commission, Sustainable Enterprise-Creative Economy.

5.2.4 SWOT Analysis

STRENGTHS	▪ High level national and regional policies and funding resources frameworks in place ▪ Stakeholder consultation indicates support for collaborative engagement to consolidate and grow opportunities for the sector. ▪ Regional Enterprise Plans synched to national policy plans. ▪ Strong network of hubs throughout the region with specific focus on creative industries ▪ Region is home to only incubation hub with exclusive focus on CreaTech ▪ CreaTech industry skills development framework developed in region and via virtual platforms. ▪ Pan-regional statutory entity (WDC) responsible for driving creative economy in region. ▪ Financial incentives for creative industries such as WDC Investment fund, WRAP fund, Uplift scheme, tax incentives in gaming and audio-visual sectors ▪ Public investment by Department of Further and Higher Education for industry relevant programmes and skills development initiatives ▪ Extension of Section 481 tax incentive to include Game sector (in addition to Film/TV industries).
WEAKNESSES	▪ In relation to a national strategic framework, there is an absence of CI business activation plans, sectoral plans, data lake, pan-industry platform. ▪ Limited availability of comprehensive creative industry business metrics on which to build business case. ▪ Infrastructure (underdeveloped) ▪ Continuous professional development and industry-specific skill development ▪ Lack of visibility of the creative ecosystem ▪ Inaccurate assumptions by many stakeholders that funding and support does/does not lie with certain entities. ▪ Limited awareness of the formal definition of the creative economy and the creative industries and enterprises therein;
OPPORTUNITIES	▪ Western Region positioned as Ireland's CreaTech region; research indicates steady growth for CreaTech sectors to 2030. ▪ Cross industry business opportunities in the region for CreaTech enterprises in identified dominant industry base and emerging sectors. ▪ Harness the identity of region as Ireland's CreaTech centre, with key components to positive the creative economy as a competitive advantage. ▪ Creative Industries all-island RDI initiative to be established in the region. ▪ Develop improved knowledge base and expert panels within the industry and enterprise development networks.
THREATS	▪ Retention and acquisition of talent in/to region ▪ Lack of visibility of ecosystem and clusters leads to difficultly in proving business case for industry potential and scale, SME investment and FDI attraction. ▪ Confusion from stakeholders about the distinction between non-profit arts activity and self-sustaining creative enterprise activity ▪ Slow pace of decision making and investment leading to potential loss of

	income/jobs/opportunities to advance, ▪ Shortages in designers and craftspeople could hinder sector growth potential.

5.2.5 Notable Practices

Atlantic TIDE (Transforming Ireland's Design Economy) Project: A Creative Ireland[29] funded project with regional partners (Western Development Commission, Sligo County Council, Innovate Limerick, Ludgate Hub, CREW, An Chroi Digital Hub, FutureCast) and the national design advocacy agency, Institute of Designers in Ireland. The project began in 2022 with the aim of boosting design enterprise and impact along the Atlantic Economic Corridor. Partners hosted a series fo workshops with various stakeholders in order to develop an action plan for future support of the creative economy. This project was cited by government as good practice example for enterprise ecosystem development for design industry in Atlantic region including the West.

Figure 2: Atlantic Tide Project

Wild Galway Games Initiative: A Creative Ireland funded project with regional partners (Galway City Council, Ardán (Galway Film Centre), Galway City Museum). This project sought to weave the games and tourism sectors together by creating an immersive games experience for locals and visitors, through bringing the city's stories, myths, and legends to life through games technology in a new interactive experience. The project was successful in informing Ardán on how to engage proactively with the game development community in the Galway region, also enabling the organisation to strengthen the wider games industry ecosystem (incl. HEIs, enterprise agencies, game developers and technical experts). Participating games teams also developed playable game demos and a game pitch document.

CreaTech Enterprise Ecosystem: Development of Northern and Western region as a Centre for CreaTech industries with CREW (Creative Enterprise West) due to open an innovation hub, the only incubation hub with exclusive focus on CreaTech sector, in Q4 2023.

[29] https://www.creativeireland.gov.ie/en/about/

Figure 3: Illustration of CREW Digital Hub co-located with Atlantic Technological University in Galway

ARCC (Atlantic Region of Creative Content) Shared Island: This feasibility study is in partnership with Atlantic Technological University, Ulster University, Derry Strabane Council, Western Development Commission, CREW and Galway Culture Company, and aim to identify the feasibility of developing virtual production facilities from Galway to Belfast. This project is an example of addressing the Regional Enterprise Plan strategic objective to strength cross border relationships while exploring the development of a creative infrastructure across the region.

Figure 4: WRAP Fund – Illustration of Supported Projects

WRAP Fund[30] - Investment of up to €200,000 is available to a feature film, television drama, animation or game that undertakes a significant portion of its production (including postproduction) in the Region (Clare, Donegal, Galway, Leitrim, Mayo, Roscommon and Sligo). Projects which can demonstrate a strong prospect of generating a financial return on our investment and generate a high economic impact will be prioritized. The WRAP Fund can also provide up to €200,000 to Western-based companies in Film, TV, Games and Animation, to scale and grow the business through the development of its own IP and/or servicer work-for-hire style offerings. This funding is provided as a repayable loan on a monthly amortised basis or on a bullet repayment basis with monthly interest. The interest rate applied is the EU Reference Rate for Ireland, currently 0.71%*, plus 450 basis points (4.5%) or 650 basis points (6.5%) depending on the track record of the business.

[30] https://wrapfund.ie/

5.3 Innovation Leader: Germany

5.3.1 Classification of Creative Industries

As per the Federal Ministry of Economics and Climate Protection[31], the cultural and creative industries are divided into 11 sub-markets:

1. Music
2. Book market
3. Art Market
4. Film Industry
5. Broadcasting
6. Performing arts
7. Architecture
8. Design
9. Press
10. Advertising
11. Software/games.

These sub-markets are represented as part of the ICT, Media and Creative Industries Cluster in the Berlin region, are categorised as:

- Media & Creative Industries which includes Film and TV, Music, Games, Print media and Publishing, fashion and design, and
- Information and Communications Technology which includes AI, IoT, AR/VR/XR, Design and User Experience.

5.3.2 Overview of Creative Ecosystem

On a national level, CCI has a turnover of €175.4 billion, making it one of the most important economic sectors in the country; 2022 reporting shows the industry recovered well from the effects of the pandemic and comparatively outperformed other sectors such as mechanical engineering, financial services, energy support and the chemical industry.[32] More than 1.8 million people are employed in CCI, with more self-employed workers compared to other sectors. The sector is characterised by a high proportion of micro-enterprises.

Regionally, the cultural and creative industries in Berlin are supported by a strong foundation of policy drivers, promotional programmes, networking platforms, and skill development programmes.

The sector is supported by policy of the State of Berlin and is regarded as an important branch of the region's economy. It is acknowledged that CCI increases attractiveness of the region and contributes to a dynamic economy; a 2018 study tracked the creative industries specifically in order to capture the nature of the creative workforce including cross sectoral activity. In 2015, the breakdown of activity across creative industry subsectors showed Publishing, Software, Design and Performing arts as having the highest percentage of the workforce, and a gender balance overall of 55% male and 45% female. The study also highlighted the precariousness of working in the creative industries, with this causing

[31] https://www.bmwk.de/Navigation/EN/Home/home.html

[32] Monitoringbericht Kultu-und Kreativwirtschaft 2022. Available from: https://www.kultur-kreativ-wirtschaft.de/KUK/Redaktion/DE/Publikationen/2022/monitoringbericht-kultur-und-kreativwirtschaft-2022.html

dissatisfaction amongst those employed in the sector.[33]

As part of the Berlin & Brandenburg Innovation Strategy 2025[34], the ICT, Media and Creative Industries Cluster includes 50,000 companies and crosses 12 sectors from ICT, games, film, fashion and music. The cluster focus is on creativity and technology, focusing on core innovation fields with significant growth potential such as AI, IoT, AR/VR/XR, Usability & Design. The cluster works closely with the Berlin Senate Department for Economics, Energy and Enterprises and the Ministry for Economics, Labour and Energy of the State of Brandenburg.

Media and Creative industries has experienced above average growth in terms of sales and employment, compared with nationwide growth, boasting more that 300,000 employees, more than 55,000 companies and approximately €40 billion in annual turnover.[35] Information and Communications Technology industry reports more than 102,000 employees, approximately 10,700 companies and an annual turnover of approximately €16.2 billion.[36]

Last year, activity in the cluster resulted in 98 projects being carried out, 42 of which were newly initiated, with a total volume of €68.9 million.[37] The cluster support activities include funding (national, regional and European), knowledge transfer, community building and support for internationalisation.

The digital sector is considered a pillar of the Berlin economy; in a 2023 study, research showed that 130,000 people were employed in the Berlin digital economy and a growth rate of one in every five jobs created.[38]

Berlin's Cultural Economy Initiative was launched in 2004, originally within the department of culture, and has evolved into an initiative that is has an inter-state and cross ministerial approach, supported by enterprise, enterprise enablers and political parties. The Third Creative Industry Report (April 2015) is the most recent report from the Cultural Economy Initiative, and at that time, Berlin's creative industries were generating 10% of the total sales of region's economy, 8.5% of the regions GVA, and 20% of all Berlin businesses were active in the creative industries; the number of CCI companies rose by 14% in 3 years and Games/Software recorded the most growth.[39]

With the continued rise of the digital sector, it is likely that the Games/Software subsector will continue to be a leading area of growth in the creative industries.

Promotional measures and networking platforms that support the creative industries include:

- Projekt Zukunft[40] which began in the Berlin Senate Department for Economics, Technology and Research, and has a key role in developing strategies for supporting Berlin as a hub for the arts. There are platforms for cultural exchange, develops network for the digital and creative economy, initiates research and reports.

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[33] Studie zum Berliner Arbeitsmarkt der Kultur-und Kreativsektoren, 2018. Available from: https://www.bildungswerk-boell.de/sites/default/files/studie-web-pdf.pdf

[34] Available from: https://innobb.de/en/innobb-2025-new-strategy-new-age

[35] Berlin Partner, 2022. Available from: https://www.businesslocationcenter.de/en/info-center/news-downloads/studies-and-rankings

[36] Berlin Partner, 2022. Available from: https://www.businesslocationcenter.de/en/info-center/news-downloads/studies-and-rankings

[37] Cluster ICT, Media and Creative Industries. Available from: https://www.digital-bb.de/en/ueber-uns

[38] Berlin aktuell, 2023. Available from: https://www.ibb.de/media/dokumente/publikationen/volkswirtschaftliche-publikationen/berlin-aktuell/ausgaben-2023/digitalwirtschaft_2022.pdf

[39] Third Creative Industry Report, 2015. Available from: https://projektzukunft.berlin.de/fileadmin/_migrated/news_uploads/KWB13_Inhalt_engl.pdf

[40] https://projektzukunft.berlin.de/

- Creative City Berlin[41] is a centralised platform for the sector that acts as a point of contact for those currently working in the sector, initiating activity in the sector and international enterprise connecting with the region.
- Landmark International events such Berlinale[42], German Film Awards[43], Gamesweek[44], Berlin Music Week[45], Berlin Fashion Week[46].

In relation to funding, in 2015 the Venture Capital Fund Creative Industries, a fund specifically for the media and creativity sector, had invested €30 million (€15 million of public funds) and was set to be increased by a further €40 million. It is noted that this and other funding mechanisms do not equally benefit all subsectors, in particular with performing arts, design and architecture requiring alternative sources.[47]

The main sectors for export are fashion, furniture and AV production, and fashion design is well represented by a series in international networks such as Create Berlin Network[48], International Design Centre Berlin[49], and Designpool[50].

5.3.3 Select Stakeholders

Government Departments- Berlin Senate Department for Economics, Energy and Enterprises, and the Ministry for Economics, Labour and Energy (State of Brandenburg), Berlin Chamber of Crafts, Department of Culture.

Business Support Organisations – Kultur Kreative (supporting creative entrepreneurs), Projekt Zukunft (founders in the creative sector), Creative Sector Advice Berlin (a free services for freelancers and self-employed creatives), ICT, Media and Creative Industries Cluster.

Financial Support – IGP-Program offers funding to non-technical innovations including innovations in the cultural and creative industries and innovation with social impact.

Educational Institutions – university and universities of applied science with departments specialising the creative industries: universities including University of the Arts, Technological University of Berlin; universities of applied science including University of Applied Science for Technology and Economics, College of Fine Arts, Hanns Eisler Academy of Music, Ernst Busch Drama and Theatre University, Berlin Weissensee School of Art and Design, Media Design University of Applied Sciences for Design and Computer Science, Berlin International University of Applied Sciences, Berlin School of Business and Innovation; more than 70 non-university research institutions.

Cultural Establishments – Creative City Berlin highlights funding, workshops, events, employment opportunities; Kultur Projekte Berlin[51] (creative and cultural events and projects such as Berlin Art Week, Kultursommerfest, etc).

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[41] https://www.creative-city-berlin.de/en/
[42] https://www.berlinale.de/en/home.html
[43] https://mubi.com/awards-and-festivals/german-fas
[44] https://www.gamesweekberlin.com/
[45] https://www.berlin-music-week.de/en/festival/
[46] https://fashionweek.berlin/
[47] Third Creative Industries Report, 2015
[48] https://www.creative-city-berlin.de/de/network/member/create_berlin/
[49] https://www.idz.de/en/
[50] https://berlindesignweek.com/en/design-pool/
[51] https://kulturprojekte.berlin/

5.3.4 SWOT Analysis

STRENGTHS	▪ Size of population in Berlin and in Germany ▪ Early understanding from Berlin politicians to work on Creative Industries ▪ Breadth and scope of creative activities ▪ Many different creative sub sectors allowing a lot of cross-sectoral collaborations. ▪ Some large companies like Springer and a few middle size companies to lead clusters. ▪ Educational offering is large and attractive. ▪ Ecosystem is quite rich and diverse, attractive location for creatives.
WEAKNESSES	▪ Public Funding is relatively low for a big creative city. ▪ Private funding in Creative industries is very limited. ▪ Many people are freelancers with limited corporate capabilities. ▪ Scaling a challenge. ▪ Internationalisation capacity of some smaller players can be weak.
OPPORTUNITIES	▪ Relative low living conditions compared to Paris or London but increasing very fast. ▪ Many international people coming to Berlin as it is easy to access and very open/multi-cultural city. ▪ Government presence in Berlin ▪ A lot of events are taking place in Berlin. ▪ Gender balance in CCI to extend to StartUp Ecosystem. ▪ Harnessing CCSI to address climate issues.
THREATS	▪ Strong competition from other major German regions esp. NRW and Bavaria. ▪ Most large German companies are based outside Berlin. ▪ Many other tech/life science sectors are predominant in Berlin and competing for funding attention, support and resources.

5.3.5 Notable Practices

Medienboard: the main institution for film and media industry in the region; the film funding division supports the development of the film industry, new media funding division support games and innovative AV projects, and Medienboard[52] provides funding for regional media-related projects, festival, conferences etc.

Figure 5: Medienboard Offices (Photo: Goldback Kirchner Raumkonzepte GmbH)

[52] https://www.medienboard.de/en/

Summer Pavilion of the Cultural and Creative Industries: From June 2023, the Federal Competence Centre for CCI will reopen a summer pavilion which will include discussions on current challenges, future planning, circular economy, shortage of skilled workers, artificial intelligence, digitisation. The pavilion was created in a temporary location originally, akin to the pop-up nature of the creative industries' events and sparked collaboration between those seeking temporary project space and empty/derelict buildings throughout the city. It has been constructed for disassembly, mindful of the impact on the environment.

SPIELFABRIQUE[53] – The Video Games Ecosystem Catalyst. Founded in 2016, SpielFabrique has developed an international and cross-border expertise of the video game industry. From mentoring indie game studios looking to bring their first game to market or established indie studios looking to scale up, to its consulting business towards public entities, SpielFabrique has built a comprehensive understanding of the video game ecosystem. As a catalyst for the video game ecosystem, they bring together all industry stakeholders to create greater understanding, knowledge and collaboration. Their goal is to stimulate international activity and strengthen ecosystems.

Figure 6: Spielfabrique Accelerator Open Call Example

Education: accredited programmes with a focus on enterprise, entrepreneurship and leaders in the creative sector - for example: BA Creative Industries Management and MA Creative Leadership (Berlin University of Applied Sciences), MBA in Creative Leadership (Berlin School of Creative Leadership), MA Management of Creative Industries (University of Applied Sciences)

[53] https://spielfabrique.eu/

5.4 Innovation Leader: Denmark

5.4.1 Classification of Creative Industries

In Denmark, 11 business sectors[54] constitute the creative and cultural industries[55]:

- Architecture
- Books and Press
- Design
- Film and Video
- Digital Content Production and Computers
- Arts and Crafts
- Music
- Fashion and Clothing
- Furniture and Interior Design
- Radio and TV
- Advertising.

Of note, Creative Denmark categories the creative industries into eight subsectors: Architecture, Interior Design, Communication Design, Fashion, Industrial & Strategic Design, Video Games & XR, Music & Sound, Film, TV & Animation. Specifically, video games and XR as a specifically labelled subcategory indicates the growth and potential of this sector. Key figures from the creative industries, as per Statistics Denmark and based on the period from 2011-2020:[56]

- 73% export growth of communication industry
- 9800+ architectural professionals
- €8.7 billion turnover in video games and XR industry
- 189% export growth of industrial & strategic design industry
- 45% export growth of interior design industry
- 28% export growth of fashion industry
- 58% export growth of film, TV and animation industry
- 44% export growth of music and sound industry.

5.4.2 Overview of Creative Ecosystem

There is a thriving ecosystem of stakeholders supporting the creative industries nationally and regionally, of which this section highlights some select examples to illustrate the coordinated range of activities supporting the creative ecosystem. In 2019, the Department of Enterprise published a growth plan for creative professionals that included 28 initiatives to improve the framework for the creative industries. These initiatives are grouped in six action areas: Strengthen Competencies, Investment and Funding, Sustainability, Innovation in public procurement, Copyright and Intellectual Property, Internationalisation and Export.[57]

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[54] https://kum.dk/

[55] Cultural and Creative Industries in the Baltic Sea Region: Analysis of nine regions participating in the Creative Ports project; 2021. Interreg Europe. Available from: https://www.creativeports.eu/fileadmin/download/consolidated_report_october.pdf

[56] Driven by Creativity. Creative Denmark report, 2021.

[57] Growth Plan for Creative Professional, 2019. Available from: https://em.dk/media/13204/vaekstplan-kreative-erhverv-accessible.pdf

Copenhagen is a design stronghold. It is internationally known as a creative centre with a high concentration of companies from the design & architecture, interior, fashion & clothing, arts & crafts, entertainment and also the gaming industry. World-famous names are part of the network, as well as small, dynamic and technology-oriented start-ups that still want to conquer international markets. The Danish capital has a strong legacy within architecture and innovative urban development. Copenhagen is currently the UNESCO World Capital of Architecture and the host city for the UIA World Congress. These events draw thousands of architects, city planners, and building professionals.

Design Denmark released State of Design Report[58] in May 2023 which outlines findings from primary research in the sector with an emphasis on emerging technologies and sustainable practices. Design Denmark is a member organisation for design professionals.

Copenhagen Capacity is the leading organisation responsible for attracting international companies, investors and professional talent to the region. The creative industries are seen as underpinning other sectors that are priorities for recruitment, such as life sciences and green transitions.

Creative Denmark is a not-for-profit, public-private initiative to create awareness about the potential for Danish creativity, matching the creative industries with international demand for value drive design and innovation. CD partners with public entities: Ministry of Industry, Business and Financial Affairs, the Ministry of Foreign Affairs, the Ministry of Culture, and with private entities: Confederation of Danish Industry (DI), Danish Chamber of Commerce and Realdania.[59]

Vision Denmark is the cluster for digital visual industry including businesses and organisations such as Sybo Games, Unity, Nordisk Film, Interactive Denmark and Copenhagen Film Fund. Strategic objectives for Vision Denmark include Competences, Climate, Creative Innovation and Capital. This sector is showing high employment and increasing international sales growth; according to the 2019 report "Danmarks Digitale Visuelle Industri" the game design subsector was demonstrating the most growth at 48%, followed by Interactive design, film, and tv. This report also highlights case studies that show the cross sectoral activities with industries such as offshore drilling, sustainable energy, healthcare[60]. This reaffirms the position taken by Copenhagen Capacity to recruit creative industries as part of broader industry targets, allowing for both the development of creative clusters and rich cross sectoral activity which strongly positions the creative industries in the region and nationally.

Copenhagen Capacity is currently recruiting talent for GameDev Hub in the region, stating that there are more game developers and studios per capita than almost anywhere else globally with 100+ studios and more than 1650 people employed in the sector [61]

Another regional cluster is Lifestyle and Design which includes companies working in graphic and visual design, product design, housing and clothing companies including the production of furniture, interiors, textiles, and fashion products. This cluster has a very strong network of knowledge partners including Danish and international art and design universities, and an emphasis on circularity within the sector.

The Sound cluster[62] is an innovative cluster for the creative industries as it is has a cross sectoral approach that focuses on Healthcare and Wellbeing (diagnostics, prevention, intervention),

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[58] State of Design 2023. Available from: https://www.designdenmark.dk/2023/05/24/state-of-design-2023-full-report/
[59] https://www.creativedenmark.com/
[60] Danmarks Digitale Visuelle Industri, December 2019. Available from: https://www.visiondenmark.dk/facts-and-figures/?lang=en
[61] "The GameDev hub in Greater Copenhagen looking for skilled talent". Available from: https://www.copcap.com/newstmp/gamedev-hub-in-greater-cph-looking-for-talent
[62] Sound Cluster. Available from: https://danishsoundcluster.dk/en/about-us/

Environmental (traffic and noise pollution, urban planning), Creative (sound as content and communication in creative industries output like gaming/film/tv/music/radio) and Future SoundTech Solutions (AI, IoT, Big Data).

Confederation of Danish Industry (DI) is a private, member led organisation that represents nearly 20k companies in Denmark. An interview with Lise Thomsen, Head of DI Creative Industries, during the SPECTRA project study visit, provided excellent context to the creative industries nationally and regionally. The creative industries are considered to fall under 6 separate branches of industry, with the potential to be considered under additional branches. Branches include: Manufacturing, Digital, Food and Drink, Commercial Industries, Professional Services, Tourism and Amusement, with potential consideration within Life Science.

The DI strategy for Creative Industries include increased visibility, communication, collaboration, new product development, as per Danish Industries. Approaches include collective exhibitions, making access to international fairs more achievable for SMEs, skill development through CPD courses to address current challenges such as IP rights, EU regulation and managing its impact.

There is a strong foundation for tertiary education in the creative industries in Copenhagen: Royal Danish Academy, Copenhagen Institute of Interaction Design, Copenhagen School of Design and Technology, and more. The relationship between education and industry was discussed during a series of interviews with stakeholders. It was highlighted that there is a disconnect between competencies demanded by industry and deeply rooted idea of Danish design education as per third level design universities. Recently reporting showed 41% of graduates were without jobs, though this number is smaller for graduates of vocational/technical institutes. Danish Industries remarked that there is an acknowledged need for further conversations to align education, pedagogy and industry. Additionally, there is an understanding that there needs to be promotion of design and creative practice amongst businesses more broadly.

In the 2000 report Denmark's Creative Potential, the government's strategy of regional development in the creative industries is clearly defined, and this provides important context for this region as an innovation leader. There are three regional strategies outlined: Flagship Strategy, Specialisation Strategy and Dynamo Strategy. At the time of the report, Copenhagen was well positioned within a Flagship strategy and in reviewing the activity in the region since that time, there are clear indicators of a Specialisation Strategy, in particular with clusters in Digital Visual Industry, and Lifestyle and Design.

International events hosted in the region include Copenhagen Fashion Week, 3 Days of Design, Copenhagen Design Week, Design Matters, Copenhagen Architectural Festival, Copenhagen Jazz Festival, Nordic Game Jam, and many others. In 2023, Copenhagen was designated UNESCO World Capital of Architecture.

5.4.3 Select Stakeholders

Governmental Departments- The Ministry of Trade and Industry, Business and Financial Affairs, the Ministry of Foreign Affairs, the Ministry of Culture, City of Copenhagen/Wonderful Copenhagen.

Business Support Organisations and Networks- Confederation of Danish Industry, Chamber of Commerce, Vision Denmark, Copenhagen Capacity, Danish Creative Industries, Creative Business Cup Foundation, Creative Denmark, Design Denmark.

Educational Institutions - Royal Danish Academy, Copenhagen Institute of Interaction Design, Copenhagen School of Design and Technology, Copenhagen Business School - Centre for Creative Industries and Institutions.

5.4.4 SWOT Analysis

STRENGTHS	▪ Strong support for collaboration for SMEs ▪ International reputation, presence and promotion ▪ Attractiveness of Copenhagen ▪ A range of international events attracting global actors in the sector ▪ Visibility of CCI ▪ Divers and rich ecosystem ▪ Strong association with world-class design and architecture ▪ Strong clustering present in some areas
WEAKNESSES	▪ Disconnect between formal design education and needs of industry. ▪ CCI fragmented across multiple industry streams. ▪ Shortage of sufficient quantity of skills and talent ▪ Internationalisation still difficult for many smaller players.
OPPORTUNITIES	▪ Further develop skill development for those working in creative industries (i.e., IPR courses) ▪ Further cross-sectoral networks/activities ▪ 'Noma' Effect for attracting talent. ▪ Strong potential for further clustering and building expertise in sustainability and circularity by employing CCSI. ▪ Building on strong involvement and interest of investors in the ecosystem.
THREATS	▪ Rate of unemployment for new graduates ▪ Perceived as an expensive country, language can be barriers for attracting relevant sector-related talent. ▪ Harmonisation of supports, transparency in targeting and reaching of creative entrepreneurs who are often very small companies or one-person enterprises.

5.4.5 Notable Practices

Clustering – Clear focus on clustering in emerging and burgeoning areas allowing creative industries opportunities to develop within and cross-sector. Linked to research and knowledge partners brings strong internationalization to this dynamic.

The **SoundTech Incubator,** run by Danish Sound Cluster and Sound Hub Denmark, is a programme for early-stage startups, for which sound is the most important element of their solution. The program aims to boost the journey of startups from idea validation to initial market traction by providing hands-on support from specialists, access to world-class test facilities in Sound Hub Denmark, and critical competencies through workshops, training, and guided execution. The incubation program is tailored to startups at the very early stages of development. It includes tailored boot camps with in-depth workshops and facilitated networking, followed by specialist-supported execution between camps. The program runs for approximately 3-4 months, during which the participants can access first-class facilities and discuss with experts in the Sound Hub Denmark.

After the incubation programme, startups are invited to continue networking with the other startups in the program and be part of the sound tech startup communities in both the Danish Sound Cluster and Sound Hub Denmark.

Figure 7: Sound Hub Denmark (Photo: Sound Hub Denmark)

Circularity and Sustainability – with all stakeholder programmes, there is an abundance of resources regarding circularity in the creative industries and in enterprise development. This leads to creative approaches to sustainability which can further enhance the creative industries' ability to scale.

Figure 8: BLOXHub (Photo: Love That Design)

BLOXHUB is the Nordic hub for sustainable urbanization. Founded on the belief, that the challenges of global urbanization and climate change require partnerships and new ways of collaboration. Through carefully tailored partnership programs and matchmaking sessions with selected delegations and global partners, they introduce entrepreneurs to new partners, projects and opportunities, including activities such as Matchmaking, Strategic Partnerships, Urban Partnerships and Science Forum. Examples of activities include workshops on topics such as "How do we scale, share and showcase the irresistible circular society in Europe and beyond borders?" involving citizens, public entities, professionals, academia to contribute to developing the New European Bauhaus to develop further idea generation in the work towards a finalised project proposal for an Irresistible Circular Society. Another example involves organization of hackathons, e.g., partnering up with the AEC Hackathon Organization, Molio and RIB Software to create AEC Hackathon @ BLOXHUB. Here, engineers, architects, computer scientists, BIM-developers, cool nerds, tech experts, design thinkers, anthropologists and great minds are rethinking traditional patterns and hacking their way into a carbon neutral urban future.

Creative Academy – implemented by the Creative Business Network foundation, it is the platform for gaining new creative skills and insights. The goal of the Creative Business Academy is to teach everyone working or collaborating with the creative sector (entrepreneurs, policy makers, stakeholders) how to implement different internationalization strategies, business development approaches and skills specifically in that area.

Figure 9: Creative Academy Example - for Policy Development

6 Analysis

6.1 Summary of Common Activities

In this section, the commonalities are identified in the activities delivered in each region, strengths and noted opportunities are grouped by type. This will allow partners to contextualise the approaches tested throughout the project.

Internationalisation
All regions have identified festivals and creative & cultural events as a strength within their creative ecosystem. The scope of festivals, many specialising in core subsectors of the creative industries, provides a showcase for enterprise and entrepreneurs and, importantly, acts as an opportunity for internationalisation. Each region has received international recognition for their respective festival programmes, with many receiving support and funding from national and regional enterprise enablers.

Training and Education
While the specialisation varies across regions, there is focused activity on the provision of skill development through traditional and non-traditional learning opportunities. Skill development is further divided into two key categories: for the creative sector and by the creative sector.

Cross-Border Activity
Utilising cross border activity as a means of innovation is common across all regional ppartners; in many cases this is applied to activities within particular subsectors in order to create formal and informal clustering.

Cross-Sectoral Activity
In particular, all regions are implementing activities in the creative industries that overlap with the tourism industry. There is an acknowledgement that CCI can and should be a driver of tourism, and that this is a unique sectoral advantage.

6.2 Opportunities for Replicability

In this section, activities and examples of good practices that can be replicated across regions have been identified from each regional report.

Promotion
Regions that are innovation leaders have coordinated promotional activities to raise awareness and the profile of creative ecosystems in the region. This includes centralised promotion of enterprise (in particular SMEs), entrepreneurs and new entrants to the industry, events/festival/conferences, and governmental/policy discussions. The availability of information and ease of navigation further reinforce this as a good practice, and one identified for replicability.

Promotion is also noted in innovator regions as a driver of investment and therefore can be included as part of funding strategies for emerging/moderate innovator regions.

Innovation in Skills Development
There is a strong foundation of skill development for enterprise at executive level, specific to the creative industries in leading innovator regions. Emerging and moderate innovator regions have noted this as an opportunity. As well, the varied pedagogical approaches to training in the creative industries is an opportunity for further knowledge exchange between regions.

Cross-Sectoral Clustering
While acknowledging the importance of unifying the creative industries, clustering approaches that include a cross-sectoral element contribute to the dynamism of leading innovation regions. For example: Berlin's cluster pairs creative industry sub sectors with fintech and/or AI, allowing for further cross pollination, access to funding, research collaboration, data and elevation of the creative industries, and Copenhagen's Sound cluster brings creative industries together with healthcare, urban planning and future tech.

Creative Methodologies in Policy Development
Utilising the methodologies and practices of the creative industries to engage with policy makers and ecosystem enablers provides a more empowered level of engagement for the creative industries. For example: Berlin's Summer Pavilion dialogues with regional policy through a pop-up exhibition format.

Diversity of actors and Interventions
It is noted that the advanced ecosystems benefit from critical mass of entrepreneurs and clustering, something that is not afforded to Ruse and Western Ireland, therefore certain aspects cannot be directly replicated, however the breadth and depth of interventions and supports in attracting greater interaction between the various stakeholders, as well as greater inclusivity is of extreme relevance and these aspects will be more thoroughly examined during study visits and through best practice examples.

6.3 Conclusion

Based on the exploration of each region's activity within the creative industries, SWOT and notable practices, it is recommended that developing innovative practices around training and education, opportunities for cross-border and cross-sectoral collaboration, consideration of coordinated promotional activities as a means of driving policy, investment and growth, and the application of creative methodologies in enterprise development are key objectives for emerging and moderate innovator ecosystems.

It may be a valuable practice as the project activities progress for partners in emerging and moderate innovator regions to examine neighbouring region activity in relation to the taxonomy presented in this report as an opportunity to identify further cross-border knowledge sharing.

Building on national strategies and policies while also developing localized strategies for sectoral development in a balanced and coherent way is a challenge faced by both the emerging and modest innovator regions in Bulgaria and Ireland, and studying the approach adopted by Copenhagen and Berlin ecosystems and stakeholders will bring forward further impulses for targeted interventions, for example in the area of multi-stakeholder cocreation activities, targeted incubator programmes and market supports.

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STIMULATING PERFORMANCE IN CREATIVE TERRITORIES AND REGIONAL ACTORS

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