

Inclusive Entrepreneurship, Creativity and Innovation in a Quadruple Helix Perspective: Analysis of practical cases

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Table of contents

Introduction	3
The Quadruple Helix model	3
Analysis of the practical cases	5
Needs and solutions	6
Areas, industries and sectors	7
Actors and target groups	12
Strategies and synergies	14
Innovations	18
Gender	20
Age	22
Conclusions	23
References	27

Introduction

This document presents the analysis of practical cases from Hungary, Italy, Spain, Sweden and United Kingdom in the project *SMART JUMP – Smart entrepreneurial skills for Creative Industries: an inclusive perspective*.¹ The purpose of the analysis is to provide knowledge on the scope of present as well as potential inclusion in joint processes for growth and innovation, as a basis for improving the ability to develop policies and training that enhance entrepreneurship and innovation among those actors, industries and sectors whose potentials in these areas have not currently been sufficiently expressed or effectively supported, with specific focus on women and youths in the creative industries. In order to attain this, previous research on inclusive innovation, including the Quadruple Helix model, is employed to analyze the practical cases. The analytical framework and target group definition developed in the project have been used as a logical model of identification, interaction and intervention of innovative cooperation among Quadruple Helix stakeholders, i.e. public authorities, private companies, academic/educational institutions and civil society/associations (cf. SMART JUMP, 2015).

The Quadruple Helix model

The Quadruple Helix model was developed by Winnet Sweden based on experiences from organizing, conceptualizing and disseminating Women Resource Centers (WRCs) as a model for inclusive growth and innovation in Sweden and internationally (cf. Lindberg et al., 2012). The Quadruple Helix model addresses the impact of gendered and other power-related structures in joint processes for innovation and growth, highlighting the need for interaction between four stakeholder categories: public authorities, private companies, academic/educational institutions and civil society/associations, including creative industries, small businesses, women entrepreneurs/innovators, and women's networks/organizations (Lindberg et al., 2014). The development of the Quadruple Helix model was motivated by the excluding structures of previous interaction models for innovation and growth, mainly acknowledging large businesses and men as entrepreneurs/innovators developing technological product innovations in men-dominated industries and symbolically masculine areas such as manufacturing, high-tech and natural resources, as important to growth and innovation (Lindberg, 2012; Pettersson, 2007). In a distinct gendered pattern, women and symbolically feminine areas of activities such as public and private services (except from high-tech² services) as well as the cultural and creative industries were marginalized in public efforts to support innovation and growth (Blake and Hanson, 2005; Lindberg et al., 2012). In a similar manner, non-commercial actors and sectors, such as non-profit organizations, social networks³ and the civil sector as a whole were marginalized (Lindberg, 2014; Lindberg et al., 2014).

¹ The analysis was carried out by Malin Lindberg, Associate Professor in Gender and Technology, who co-authored the article "Women Resource Centres – A Creative Knowledge Environment of Quadruple Helix" (Lindberg et al., 2014) that inspired the project SMART JUMP (cf. SMART JUMP, 2015). More info about the author is available at www.ltu.se/staff/m/mallin-1.12910?!=en

² High-tech here refers to advanced computer electronics, including ICT, digital media, gaming etc.

³ The term social network is here used with reference to distinguishable relationships between individuals, groups, organizations, or societies (Freeman, 2004; Kadushin, 2012).

Recent innovation studies have addressed these excluding patterns in promotion and processes of growth and innovation, highlighting the importance of acknowledging a wider range of actors, sectors and industries, as well as a multitude of innovation forms – e.g. service innovations, social innovations, organizational innovations – in order to properly understand the nature of innovation (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2014; Mulgan et al., 2007; Pettersson, 2007). The delineation of specific innovation forms – such as social innovation or technological innovation – is not a straightforward matter, but has by innovation scholars been motivated by the technological bias of the innovation concept itself (cf. Blake and Hanson, 2005; Lindberg, 2012). In order to counteract this bias, specific labelling is considered to be required, partly for acknowledging innovations with prominent social features or those that entirely lack technological features, and partly for acknowledging the social, technological, organizational etc. dimensions inherent in any single innovation (Lindberg et al., 2015; Mulgan et al., 2007). Various forms of innovation can thus be considered to operate in crosscutting, complex and multilevel ways, reflected in the fact that innovation in services may lead to renewal not only in the service industries, but in all industries, including manufacturing industries (cf. Fløysand and Jakobsen, 2011).

Innovation studies have thereto scrutinized gendered and other power-related structures in joint processes for innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013; Ranga and Etzkowitz, 2010). There, the concept of ‘doing gender’ has been employed to analyze how gender is continuously “done” or “constructed” by and between people – both women and men – in their everyday life (cf. West and Zimmermann, 1987). The doing of gender is perceivable as gendered patterns and preconceptions on individual, relational, symbolical and structural levels in organizations and societies (Acker, 1999). The continuous construction enables both stability and change, either reinforcing prevailing structures or transforming them into less segregating and hierarchical forms (Fenstermaker and West, 2002). Another concept employed in studies on gender and innovation is ‘gendered social innovation’, acknowledging and addressing gendered delimitations and potentials of socially innovative processes, pinpointing the development of innovative solutions to identified societal challenges of gender inequality and/or unmet social needs among women or men as underrepresented or disadvantaged groups in various societal areas, that are developed through gender inclusive processes, intended to transform gendered structures on individual, organizational and societal levels (cf. Lindberg et al., 2015). In a similar manner, the Quadruple Helix model has been proven to be effective for promoting entrepreneurship and innovation in a gender-inclusive manner, especially within the creative industries sector and between that and other sectors (cf. Lindberg et al., 2014). The model

was outlined simultaneously by various research groups in Europe and America during the last decade, in dialogue with various stakeholders, as a criticism of the delimitations of dominating interaction models for growth and innovation (cf. Afonso et al., 2010; Arnkil et al., 2010; Carayannis and Campbell, 2009, 2010; Lindberg et al., 2012; Mac Gregor et al., 2010; Maldonado et al., 2009).

One of the pioneering studies of Quadruple Helix highlights that the creative development that is required in the current industrial and societal transformation depends upon a

combination of motivations, skills, understandings, social structures and actors, as well as upon the organizations, sectors and countries in which the creative processes take place (Lindberg et al., 2012). These aspects form the basis of Creative Knowledge Environments, which the Quadruple Helix model is depicted as able to enhance and interlink by its addition of the civil society, in terms of non-profit organizations, communities, networks as well as the media-based and culture-based public (including media, creative industries, culture, values, life style and art) (Carayannis and Campbell, 2009, 2010; Lindberg et al., 2012). Another study exposes that civil society associations can serve as a connecting and legitimizing link between civil society actors, such as citizens, consumers and communities, as well as small women-led businesses, on the one hand, and more institutionalized actors from the public, private and academic sectors, on the other hand (Lindberg et al., 2014). It was also distinguished that bottom-up strategies enable civil society associations to provide creative and inclusive environments enhancing the development of innovation-support models for hitherto marginalized actors, industries, sectors and innovations (ibid). By their less formalized character, civil society associations were in the study seen as able to “handle different linkages in a pragmatic manner, to give voice to marginalized categories of entrepreneurs and firms in non-traditional industries, nontraditional sectors, non-urban areas and with atypical sizes and growth ambitions” (ibid, p. 107). This inclusiveness of the Quadruple Helix model makes it suited for the purposes of the project *SMART JUMP*, which is to enhance entrepreneurship and innovation among those actors, industries and sectors whose potentials in these areas have not currently been sufficiently expressed or effectively supported. The employment of this model in *SMART JUMP* is estimated to be particularly effective for developing policies and practices that harness the entrepreneurial and innovative potential among women and young entrepreneurs in the cultural and creative industries (cf. *SMART JUMP*, 2015).

Analysis of the practical cases

This section presents the analysis of practical cases from Hungary, Italy, Spain, Sweden and United Kingdom in the project *SMART JUMP*. In order to provide knowledge on the scope of present and potential inclusion in joint processes for growth and innovation – with specific focus on women and young entrepreneurs in the creative industries sector – the analysis employs previous research on inclusive innovation – including the Quadruple Helix model – to elucidate the spectrum of actors, areas, industries, sectors and innovation forms as well as patterns of interaction, innovation synergies, gender and age.

The analysis encompasses ten practical cases of joint processes for growth and innovation, in the form of projects, programs, networks, organizations, centers and clusters. As the analysis will demonstrate, the scope and depth of inclusion vary between the cases regarding their links to various sectors, industries, organizations and actors, as well as their focus on aspects of gender and age. The variation implies both potentials and delimitations regarding the prospects of enhancing entrepreneurship and innovation among women and young entrepreneurs in the creative industries sector, which is further scrutinized below. The analysis is organized in line with the aspects pinpointed in the analytical framework and target group definition of *SMART JUMP*.

Country	Practical case 1	Practical case 2
Hungary	Mobility and Multimedia Cluster (cluster)	ECOMUM (program)
Italy	Creative Networks (project)	GREEN ROSE – Sustainability and competitive development (project)
Spain	Campus Francisco de Goya (collaborative platform)	ETOPIA Centro De Arte y Tecnología (art and technology center)
Sweden	The Swedish Rural Network (network)	Winnet Västra Götaland (civil society association)
United Kingdom	StArt: ArtworksMK (arts and education charity)	CREATE – Women Fashion Entrepreneurs London and Berlin (project)

Table 1. Practical cases in the SMART JUMP project

Needs and solutions

In order to provide an initial overview of the practical cases, their addressed *needs* and proposed *solutions* are here shortly depicted. The needs and solutions in the practical cases encompass the need to promote a culture of innovation that create enterprises and employment in the cultural and creative industries, which is addressed by a center for art and technology hosting and promoting creative, innovative and enterprising projects (ETOPIA, Spain), the need to increase the contribution of cultural and creative industries to innovation and qualification in tourism, which is addressed by a collaborative platform for knowledge transfer, competence development and joint innovation (Creative Networks, Italy), the need to improve knowledge and innovation in design and fashion sectors, which is addressed by creating a collaborative platform for informal and collaborative learning between people from different sectors and organizations (Campus Francisco de Goya, Spain), the need to foster innovation and entrepreneurship in mobile technologies and new media, which is addressed by a cross-sectoral cluster developing innovative products, services and new skills (Mobility and Multimedia Cluster, Hungary), the need of cooperation, knowledge and solutions for rural services, employment, entrepreneurship, innovation and development, which is addressed by enhancement of cross-sectoral, multi-level innovative processes (The Swedish Rural Network, Sweden), the need among young women for re-employment after maternity leave, which is addressed by training in ecotourism and organic farming (ECOMUM, Hungary), the need to support unemployed, under-utilized, creative women to establish or grow their own enterprise in the creative industries, which is addressed by action learning between individual artists/designers, microbusinesses, business counselors and academics (StArt: ArtworksMK, UK), the need to better understand the pro-active role of local government support to young women fashion designers in start-up mode, which is addressed by collaborative partnerships for business coaching, benchmarking, contacts and advocacy (CREATE, UK), the need for supporting women's entrepreneurship and innovation

in the technical and mainly men-dominated field of green innovation and manufacturing, which is addressed by a blended learning methodology of joint seminars, tailor-made counselling and common branding with women as entrepreneurs, researchers and experts (GREEN ROSE in Italy), the need for gender equal growth in the labor market, workplaces, entrepreneurship, innovation, infrastructure and integration, which is addressed by mapping, highlighting and influencing current patterns and processes (Winnet Västra Götaland, Sweden).

The explicitly addressed needs and proposed solutions in the practical cases thus mainly encompass innovative development of the cultural and creative industries, often complemented by innovative development of manufacturing industries, green industries and rural areas. The focus on the cultural and creative industries reflects the need distinguished in recent innovation studies, to study and promote growth and innovation in a more inclusive manner than before, where not only development and implementation of technological product innovations in manufacturing and high-tech is acknowledged, but also social and service innovations in the cultural and creative industries (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2014; Mulgan et al., 2007; Pettersson, 2007). The distinguished needs and solutions of the practical cases also to some extent encompass women as entrepreneurs, innovators or unemployed, as well as gender equal growth and innovation. This reflects another need distinguished in recent innovation studies, to acknowledge and address gendered structures in joint processes for innovation and growth, in terms of gendered patterns and preconceptions on individual, relational, symbolical and structural levels in organizations and societies (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013; Ranga and Etzkowitz, 2010). Other power-related structures, such as age, class and ethnicity, are less detectable in the main needs and solutions of the practical cases (cf. Fenstermaker and West, 2002). This varying degree of inclusion will be further scrutinized in the subsequent sections.

Areas, industries and sectors

The encompassed *areas* in the practical cases include three primary categories: cultural and creative areas, green industries, as well as support. The first area of *cultural and creative areas* encompasses e.g. architecture, culture, arts, handicraft, design, fashion, media, advertising, creative technology, videogames, new medias, telecommunication, information technology, as well as a few examples of tourism and manufacturing (e.g. Mobility and Multimedia Cluster in Hungary, Creative Networks and GREEN ROSE in Italy, ETOPIA and Campus Francisco de Goya in Spain, CREATE and StArt: ArtworksMK in the UK). This reflects the previously mentioned need to study and promote growth and innovation in a more inclusive way, in order to compensate for the previous marginalization of cultural and creative industries (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2014; Mulgan et al., 2007; Pettersson, 2007). The second area of *green industries* encompasses e.g. agriculture, horticulture, forestry, fishery, eco-farming, agrofood, agritourism, nature tourism, as well as rural services (ECOMUM in Hungary, GREEN ROSE in Italy, The Swedish Rural Network in Sweden). This partly reflects the need to consider innovation as operating in crosscutting, complex and multilevel ways, with potential innovation synergies in the cross-industrial intersection of natural resource-based industries and service industries (cf. Fløysand and Jakobsen, 2011), partly the need to highlight the spatial dimension of growth and

innovation, where urban areas and their urbanized factories often have constituted the norm in policy efforts and scientific studies, making natural-based industries in rural areas less relevant (cf. Lindberg et al., 2014). The third area of *support* encompasses promotion and guidance regarding innovation, business and employment by e.g. coaching, ideation, business counselling, business modelling, financial modelling, organization management, branding, incubator services, as well as by measures for gender equality, integration and youth involvement (e.g. GREEN ROSE in Italy, Winnet Västra Götaland in Sweden, StArt: ArtworksMK in the UK, Creative Networks in Italy, Campus Francisco de Goya, Spain). This reflects the need highlighted in previous research for improved and tailored support to those actors, industries and sectors whose innovative and entrepreneurial potentials have not currently been sufficiently expressed or effectively supported (cf. Blake and Hanson, 2005; Lindberg, 2012; Pettersson, 2007), as well as the need to address gendered and other power-related structures in joint processes for innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013; Ranga and Etzkowitz, 2010).

The inclusion of *industries* in the practical cases encompasses four main categories: cultural and creative industries, services industries, manufacturing industries and green industries. Since these categories are partly overlapping, it is not a straightforward matter to sort each example in any single category (cf. Fløysand and Jakobsen, 2011), which is why the division below is to be regarded as an analytical generalization rather than an empirical specification. The examples of *cultural and creative industries* include e.g. architecture, craft, illustration, visual art, design, fashion design and videogames (e.g. Creative Networks and GREEN ROSE in Italy, ETOPIA and Campus Francisco de Goya in Spain, CREATE and StArt: ArtworksMK in the UK). This reflects the need distinguished in previous innovation studies, to study and promote growth and innovation among previously marginalized industries, such as the cultural and creative industries (cf. Blake and Hanson, 2005; Lindberg, 2012, 2014; Pettersson, 2007). It also, to some parts, reflects the need to address gendered structures in joint processes for innovation and growth, in that it acknowledges the importance of industries where women often are involved as employed, entrepreneurs or innovators (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013). At the same time, it also encompasses some men-dominated and symbolically masculine sub-areas such as videogames, and similarly gendered sub-areas of visual art, e.g. filmmaking and some crafts. The balance of sub-areas with differing gender-composition and symbolical genderedness in each of the practical cases thereby determines the overall potential to promote inclusive growth and innovation (cf. Lindberg, 2012, 2014).

The examples of *service industries* include e.g. high-tech, creative technology, ICT, multimedia, 3D, tourism, commercial services, logistics, healthcare and fashion producer services (e.g. Mobility and Multimedia Cluster in Hungary, Creative Networks in Italy). This partly reflects the same need as highlighted above, to acknowledge the importance of previously marginalized industries such as the gender-balanced and women-dominated parts of service industries – which include tourism, commercial services, healthcare and fashion producer services – and thereby address gendered structures in joint processes for for innovation and growth (cf. Blake and Hanson, 2005; Lindberg and Schiffbänker, 2013). At the same time, it also reflects masculine norms of growth and innovation, by its focus on men-dominated and symbolically masculine parts of the services industries – such as high-tech, creative technology, ICT, multimedia, 3D and logistics – which need to be balanced in the

practical cases in order to attain inclusive growth and innovation (cf. Lindberg, 2012; Pettersson, 2007).

The examples of *manufacturing industries* include e.g. textile industry, leather industry, fashion accessories, shoe manufacturing, electronics, minerals, metals, vehicles, and agricultural products (e.g. Creative Networks and GREEN ROSE in Italy, ETOPIA and Campus Francisco de Goya in Spain, The Swedish Rural Network in Sweden). Since this groups of industries are generally men-dominated and symbolically masculine, prevalent excluding structures of growth and innovation might be reinforced if one-sidedly promoted (cf. Lindberg, 2012; Pettersson, 2007). But since manufacturing industries mainly are promoted in the practical cases as part of intersecting synergies with the cultural and creative industries, inclusive effects may emerge (cf. Fløysand and Jakobsen, 2011; Lindberg and Schiffbänker, 2013). The textile industry constitutes an exception from the general masculine character of manufacturing industries, since it employs many women, and thus possesses the potential to challenge gendered structures in the intersection with other, men-dominated, manufacturing industries (cf. Lindberg, 2012). The examples of *green industries* include e.g. agriculture, horticulture, forestry, fishery, eco-farming, agrofood, cultural heritage and agritourism (e.g. ECOMUM in Hungary, GREEN ROSE in Italy, The Swedish Rural Network in Sweden). They thus encompass both men-dominated, women-dominated and gender-balanced industries, enabling innovative synergies between industries with differing gender-composition (cf. Fløysand and Jakobsen, 2011; Lindberg, 2012, 2014).

The inclusion of *sectors* in the practical cases encompasses all four sectors – the public, private, academic and civil sectors – to various extent. The type of actors and roles encompassed by each sector varies, which will be further specified in upcoming sections. The variety within the *public sector* encompasses public authorities on various levels, such as municipalities, regional authorities, national entities and international bodies, as well as the roles of policymaking, guidance and financing. In the case of Mobility and Multimedia Cluster in Hungary, public authorities were part of a cross-sectoral cluster, developing innovative products, services and new skills in mobile technologies and new media, while in the case of ECOMUM in Hungary, the municipality hosted a “maternity desk” at the public job center. This reflects the inclusion of institutionalized actors from the public sector, such as public authorities on various administrative levels, in the Quadruple Helix model (Lindberg et al., 2012, 2014). The roles of public authorities, identified in previous studies, as partners and financiers of joint processes for growth and innovation, are reflected in the practical cases (cf. *ibid*). The simultaneously highlighted role as an arena for the development and implementation of public services is only partly detectable in the practical cases, thus constituting a largely unexploited potential for inclusive growth and innovation (cf. *ibid*).

The variety within the *private sector* encompasses both individual consultants and designers as well as micro, small and medium companies. In the case of Campus Francisco de Goya in Spain, fashion and design companies participate in the exchange of good practices, networking, conferences etc. In the case of GREEN ROSE in Italy, small/micro/medium entrepreneurs in manufacturing, agrofood and creative industries are linked to local policy actors, researchers and business services providers in order to enhance green innovation and manufacturing. In the case of ETOPIA in Spain, individual artists meet other creators in the provided spaces for interaction and innovation. This reflects the inclusion of private sector

actors in the Quadruple Helix model, both in terms of private companies in general as well as small women-led businesses in particular (cf. Lindberg et al., 2012, 2014). The inclusion of the latter category reflects the need highlighted in previous research, to address gendered structures in joint processes for innovation and growth, in that it acknowledges the importance of small women-led companies as a marginalized group of private actors in dominating models for innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013). The simultaneously highlighted role of private companies as an arena for the development and implementation of private services is also detectable in the practical cases, as specified in subsequent sections (cf. Lindberg et al., 2012, 2014).

The variety within the *academic/educational sector* encompasses both individual experts and researchers as well as institutions such as universities, research institutes, schools, training institutions and adult education providers, in the roles of educationist, experts, analysts, evaluators etc. In the case of CREATE in the UK, the Goldsmiths, part of University of London, served as project owner and involved participants also from other universities and art schools in London, Glasgow and Berlin, while in the case of Creative Networks in Italy, training institutions contributed to the development and implementation on training tracks for business and innovation management in the intersection of tourism, cultural and creative industries and manufacturing industries. This reflects the inclusion of institutionalized actors from the academic/educational sector, such as universities, research institutes, vocational training and educational associations, in the Quadruple Helix model (cf. Lindberg et al., 2012, 2014). One of the challenges for inclusiveness in joint processes for growth and innovation is distinguishable in the comparison of theoretical and practical approaches to academic/educational sector concerns its varying character and roles. Previous research underlines the need to broaden the view of academia in such processes, since the need of academic/education contributions sometimes might encompass “path-breaking research”, while other times just encompassing “the state of established knowledge (or) vocational training” (Lindberg et al., 2014, p. 104). Small businesses often might sometimes just need “access to generic knowledge or simple mappings of market trends” (ibid, p. 105) that could be offered by high school teachers, local consultants or students, instead of complex analyses provided by full-fledged researchers (cf. ibid).

The *spectrum of academic/educational actors* – spanning from theoretically oriented research institutions to more practically oriented adult education – in joint processes for growth and innovation hence varies in the practical cases and in previous studies (cf. ibid). The roles of academic/educational actors are also varying in both the cases and the studies, depicted as providing education, training, knowledge and technologies, including knowledge on innovation systems, business clusters and other forms of collaborative practices (ibid). They are also depicted as providing “access to business incubators and research spin-offs” (Lindberg et al., 2014, p. 103) and partners in “participatory research approach, (where) knowledge is developed jointly by researchers and the actors concerned by the research issues” (Lindberg et al., 2012, p. 38), which is partly reflected in some of the practical cases. There are also gendered aspects of the academic/educational variation, since gendered exclusion in growth and innovation might be reinforced if only men-dominated and symbolically masculine research areas are included, such as ICTs and other technologies (cf. Lindberg et al., 2012). Such an exclusion might be further consolidated by the general societal trend of interpreting knowledge economy as primarily requiring research and development

focused upon technological innovation (cf. Parken and Rees, 2011), despite the prevalence of research highlighting the crosscutting, complex and multilevel character of innovation (cf. Fløysand and Jakobsen, 2011). The involvement of researchers also from humanities and social sciences – e.g. gender studies and arts scholars – as done in some of the empirical cases, is thus of utmost importance to promote inclusive processes of growth and innovation (cf. Lindberg et al., 2012).

The variety within the *civil sector* encompasses both individuals (e.g. young people in rural areas), networks, organizations and communities (labelled as the public, residents etc.). In the case of The Swedish Rural Network in Sweden, civil society associations and local residents contribute to the content and delivery of services in ‘local service points’, innovatively co-locating public, commercial and civil services, while in the case of Winnet Västra Götaland in Sweden, women’s organizations design various tools for gender equality in organizations and societies, based on both theoretical and practical knowledge. This reflects the inclusion of the civil society sector in the Quadruple Helix model, both in terms of formalized associations as well as networks and individuals (cf. Lindberg et al., 2012, 2014). Several of the practical cases also reflect the scientifically highlighted involvement of media-based and culture-based public, including media, creative industries, culture, values, life style and art, in the Quadruple Helix model (cf. Carayannis and Campbell, 2009, 2010). The inclusion of women’s networks and organizations in some of the practical cases reflects the need highlighted in previous research, to address gendered structures in joint processes for innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013), in that it simultaneously acknowledges the importance of women as well as as civil society formations as marginalized groups in dominating models for innovation and growth (cf. Lindberg et al., 2012, 2014). The potential to include women’s organizations and networks is however largely unexploited in the practical cases, where the inclusion of women as individual entrepreneurs is predominant.

The *roles of civil society actors* in the practical cases primarily encompass the role of non-profit organizations as intermediaries for connecting with partners and target groups, reflecting previous studies where civil society actors are distinguished to serve as a connecting and legitimizing link between civil society actors – such as citizens, consumers and communities – and more institutionalized actors from the public, private and academic sectors (cf. Lindberg et al., 2014). The case of Campus Francisco de Goya in Spain involves a non-profit organization that brings together young professionals wanting to improve their personal, social and business competitiveness in the fashion and textile design industry by the exchange of knowledge and collaborative innovation, creating links between companies, research centers, universities and public administrations. Other roles of non-profit associations in the practical cases encompass organizers of collaboration platforms, participation as project partners or cluster members, providers of knowledge development/transfer, mentoring services and societal legitimacy, as well as further management of jointly developed results, procedures and contacts. This reflects previous studies of civil society associations to provide creative and inclusive environments enhancing the development of innovation-support models for hitherto marginalized actors, industries, sectors and innovations (cf. *ibid*). The case of ETOPIA in Spain involves civil organizations and individual experts that actively participate in activities at the art and technology center and use the different spaces and laboratories provided there. The role of non-organized civil

society actors in the practical cases encompasses e.g. public participation in innovation spaces open to society, which is reflected in the scientific inclusion of citizens, consumers and communities in general, not only as members of associations or networks (cf. *ibid*).

Actors and target groups

The inclusion of *actors* in the practical cases encompasses new and established companies (micro, small, medium companies), business/job promoters (business service providers, job centers), public authorities (on local, regional, national, international levels and including policymakers), academic/educational actors (universities, research centers, training institutions, schools, adult education providers, researchers, students, experts), as well as civil society actors (non-profit organizations, cultural associations, co-operatives, social organizations, general public). Their character and roles have been discussed in relation to previous research and the Quadruple Helix model in previous sections and will thus not be extensively elaborated here. It will only be noted that the main focus in the practical cases on micro and small companies reflects the need highlighted in previous research, to address gendered structures in joint processes for innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013), in that it acknowledges the importance of small women-led businesses as marginalized groups in dominating models for innovation and growth (cf. Lindberg et al., 2012, 2014).

The inclusion of *innovators and entrepreneurs* in the practical cases encompasses distinct groups based on categorizations such as gender (mainly women as entrepreneurs and in a few cases women as innovators and men as entrepreneurs/innovators), age (e.g. young entrepreneurs), origin (e.g. immigrant entrepreneurs), profession (e.g. consultants, designers, fashion entrepreneurs) and type (e.g. intrapreneurs, creative entrepreneurs, cultural entrepreneurship, gender-inclusive entrepreneurship). The term ‘entrepreneur’ is frequently used in most examples, while the term ‘innovator’ is rarely used. On the other side, the term ‘innovation’ is more frequently used than the term ‘entrepreneurship’. In order to enhance inclusive growth and innovation, the separate – and at the same time interacting – roles of entrepreneurship and innovation ought to be clarified in each practical case, and the distribution of efforts between entrepreneurship and innovation ought to be deliberately balanced (cf. Blake and Hanson, 2005; Lindberg, 2014). The need highlighted in previous research, to address gendered structures in joint processes for innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013), also ought to be recognized in the distinction and targeting of innovators and entrepreneurs in the practical cases, in order not to reinforce prevalent masculine norms that make women less inclined to label themselves as such (cf. Lindberg, 2012; Pettersson, 2007).

In some cases, women constitute an explicit *target group*, sometimes further specified as unemployed, entrepreneurs, innovators, immigrants, young, local residents, or active in the fashion industry, textile design industry or technological creative industries (GREEN ROSE in Italy, Campus Francisco de Goya in Spain, Winnet Västra Götaland in Sweden, CREATE and StArt: ArtworksMK in the UK).⁴ Young entrepreneurs constitute another target group (ETOPIA and Campus Francisco de Goya in Spain, The Swedish Rural Network in Sweden)

⁴ A scientific study of women’s labor in the cultural and creative industries is provided by McRobbie (2016).

alongside green entrepreneurs (ECOMUM in Hungary, The Swedish Rural Network in Sweden). Since women in previous research have been identified as underrepresented and disadvantaged in joint processes for growth and innovation (cf. Blake and Hanson, 2005; Lindberg, 2012; Pettersson, 2007), the targeting of them in the practical cases might contribute to address gendered structures in such processes (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013). The presence of youths in the same processes does not seem to have been scientifically scrutinized to the same extent. As noted in previous sections, other power-related structures than gender and age – such as e.g. class and ethnicity (cf. Fenstermaker and West, 2002) – are generally less detectable in the practical cases. The inclusion of immigrants among the target groups does however acknowledge such complementary and intersecting structures, exposing a potential to expand that approach to more of the practical cases.

The *needs and problems of the target groups* in the practical cases encompass gendered marginalization in various societal areas, such as the labor market, entrepreneurship, innovation and infrastructure (Creative Networks and GREEN ROSE in Italy, Winnet Västra Götaland in Sweden). Spatial marginalization is another perceived problem, referring to the delimited access to services and job opportunities in rural areas (The Swedish Rural Network in Sweden). Since the sub-areas of fashion and textile design within the cultural and creative industries are perceived as encompassing mainly small, medium and micro companies, the main needs and problems concern insufficient funding due to difficulties in attaining bank loans and lack of other private funding schemes, difficulties in entering the international market due to the limited size of the companies and lack of a unique European market, limited collaboration within the sector due to insufficient knowledge, contacts and projects, digital business model requirements, as well as changed customer behaviors (ETOPIA and Campus Francisco de Goya in Spain). The perceived *discriminating factors* of the practical cases mainly encompass gender and age, but also ethnicity, religion, rurality and entrepreneurial experience (GREEN ROSE in Italy, ETOPIA and Campus Francisco de Goya in Spain, The Swedish Rural Network and Winnet Västra Götaland in Sweden). The acknowledged needs, problems and discriminating factors of the target groups thus reflects the need highlighted in previous innovation studies, to address gendered and similarly exclusive structures in joint processes for innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg et al., 2012, 2014; Lindberg and Schiffbänker, 2013).

The focus on target groups might thus be deliberately used to enforce the inclusive ambitions of the *SMART JUMP* project. This could be further reinforced by the choice of *methods* for target group analyses in the practical cases, informing the design of targeted efforts. The highlighted methods encompass e.g. mappings and dialogues (Winnet Västra Götaland and The Swedish Rural Network in Sweden), interviews and trend analytics (GREEN ROSE in Italy), action learning groups (StArt: ArtworksMK in the UK), sociological methods of inquiry, comparative case studies and event research (CREATe in the UK), document studies, external monitoring, dialogue with local public authorities and personal meetings with entrepreneurs (ETOPIA and Campus Francisco de Goya in Spain). Several of these methods are partly performed with participatory ambitions, reflected in the scientific approach of ‘participatory research’ where knowledge is developed jointly by researchers and various societal actors (cf. Lindberg, 2014; Lindberg et al., 2012). Since such an approach intends to increase the contextual robustness of the results, by intertwining various forms of knowledge

and experience (cf. *ibid*), it could be more extensively used in the practical cases to enhance the inclusiveness of joint processes for growth and innovation.

The *opportunities* of the identified target groups in the practical cases encompass enhancement of employment, innovation, entrepreneurship, local development and infrastructure in order to attain socially inclusive organizational/societal development (The Swedish Rural Network and Winnet Västra Götaland in Sweden). Companies within the creative and cultural Industries enterprises are depicted as able to take advantage of technological progress, market demand for innovative new services and products, constantly renewed business opportunities and unexploited market niches and the great dimensions of the digital content market (ETOPIA and Campus Francisco de Goya in Spain). The perceived *difficulties* in gaining access to learning opportunities of the practical cases encompass insufficient networks, legitimacy, knowledge and finances (ETOPIA and Campus Francisco de Goya in Spain, Winnet Västra Götaland in Sweden), as well as sparsely populated areas and limited access to public, commercial and civil services (The Swedish Rural Network in Sweden). These opportunities and difficulties reflect the scientific distinction of the previous incapacity of harnessing the innovative and entrepreneurial potential among a multitude of actors, sectors, industries and innovations as a potential springboard for better understanding and promoting the crosscutting, complex and multilevel character of innovation, through the development and employment of inclusive approaches in mapping, cooperation, counselling, training etc. (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2014; Mulgan et al., 2007; Pettersson, 2007).

Strategies and synergies

The strategies of the practical cases encompass both bottom-up and top-down⁵ strategies, as well as multi-level and horizontal strategies. Several strategies can be used in the various efforts of each case. Two examples of *bottom-up strategies* are the target groups' development of collaboration strategies and practices between cultural and creative industries, tourism companies and non-profit cooperatives (Creative Networks in Italy), as well as the open Innovation strategy employed to ensure the involvement of users and beneficiaries in the innovation processes (ArtworksMK in the UK). Such strategies are reflected in previous research on the Quadruple Helix model, concluding that they enable civil society associations to provide creative and inclusive environments that enhance the development of innovation-support models for hitherto marginalized actors, industries, sectors and innovations (cf. Lindberg et al., 2014). Bottom-up strategies are also scientifically considered to form the basis of inclusive innovation, highlighting the importance of hitherto marginalized contributions to growth and innovation (cf. Lindberg, 2014). *Top-down strategies* can be perceived in the funding, project strategy, promotion of collaboration and process management (Creative Networks and GREEN ROSE in Italy). These are scientifically considered to form the basis of traditional management models for growth and innovation,

⁵ Bottom-up and top-down have long been used as analytical and practical approaches to organizational and societal change, where the bottom-up perspective highlights the impact of local actors – individuals, networks or organizations – from grass-root level, and the top-down perspective highlights the impact of actors with established political, economical or social power imposing their measures from above in organizations and societies (Lindberg, 2014; Sabatier, 1986).

mainly highlighting the importance of institutionalized, established and resourceful actors, areas and innovation forms (cf. Lindberg, 2014), motivating the development of more inclusive models such as the Quadruple Helix (cf. Lindberg et al., 2012, 2014).

There are also *multi-level strategies* perceivable in the practical cases, where the employed collaboration strategies and practices are the combined result of initial input by trainers and further development and appropriation by trainees (Creative Networks in Italy). Another example of multi-level strategies is the innovative intertwining of actors on local, regional, national and international levels in cooperation, knowledge and solutions for rural services, employment, entrepreneurship, innovation and development (The Swedish Rural Network in Sweden). Since the doing of gender is perceivable as gendered patterns and preconceptions on individual, relational, symbolical and structural levels in organizations and societies (Acker, 1999), multi-level strategies might be important in order to address gendered and similarly exclusive structures in joint processes for innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013). Such strategies might also enhance the interlinkage between marginalized, generally less resourceful, actors such as small women-led businesses and individual civil society actors, such as citizens, consumers and communities, on the one hand, and more institutionalized, generally more resourceful, actors from the public, private and academic sectors, on the other hand. This has the potential to evoke empowering effects on people's abilities to contribute to and gain from joint processes for growth and innovation (cf. Lindberg et al., 2014).

Horizontal strategies are distinguished in the practical cases in terms of a space for artists to meet other creators with whom they can share and explore new ideas about contents, usability, interfaces, etc. (ETOPIA in Spain), a knowledge alliances platform enabling interaction between experts, technicians, entrepreneurs, guests and intra-entrepreneurs on the same level of debate (Campus Francisco de Goya in Spain), and networking between sectors and technological and social collectives to promote shared knowledge, creative skills and the use of new technologies (ETOPIA in Spain). The horizontal approach is reflected in innovation studies on joint processes for growth and innovation, where the linking and cooperation of various actors in various sectors is fundamental for the development of innovative and entrepreneurial ventures (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2012, 2014; Mulgan et al., 2007). The scientific scrutiny of gendered and other power-related structures in joint actions for innovation and growth has however exposed that these relations are not always as horizontal as they may appear at a first glance (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013; Ranga and Etzkowitz, 2010), underlining the importance to acknowledge and address the varying legitimacy and resources among actors, industries, sectors and innovation forms in the practical cases in *SMART JUMP*.

The pattern of *interaction* in the practical cases encompasses interaction between tourism companies and cultural and creative companies in the organization of stable cooperation networks (Creative Networks in Italy), between experts in a certain field and entrepreneurs in various creative industries interacting in a joint space (ETOPIA in Spain), between various experts and other actors at events for the exchange of knowledge and experiences of new innovative projects in the fashion and textile design sector (Campus Francisco de Goya in Spain), between microbusinesses, coaching staff, academics and individual artists/designers

through action learning (StArt: ArtworksMK in the UK), between entrepreneurs, researchers, experts and public officials in the area of green design and innovation (GREEN ROSE in Italy), between young startup companies, innovation-oriented SMEs, local branches of multinational ICT companies, universities, venture capital funds in the digital industry, and companies offering project management, grant writing and consultancy services in a joint cluster (Mobility and Multimedia Cluster in Hungary), between manufacturing and services companies (Campus Francisco de Goya in Spain, The Swedish Rural Network in Sweden), between tourism, manufacturing and service companies both in relation to cultural and creative industries (Creative Networks in Italy) and in relation to green industries (ECOMUM in Hungary, The Swedish Rural Network in Sweden), between schools, hospitals, elderly care and society (The Swedish Rural Network in Sweden), as well as between women's organizations, public authorities, manufacturing/service companies and universities (Winnet Västra Götaland in Sweden). These interactions are reflected in previous research on joint networks for growth and innovation, where the Quadruple Helix model prescribes cross-sectoral/industrial/organizational interaction in order to attain innovation synergies (cf. Afonso et al., 2010; Arnkil et al., 2010; Carayannis and Campbell, 2009, 2010; Lindberg et al., 2012, 2014; Mac Gregor et al., 2010; Maldonado et al., 2009). In order for these interactions to be inclusive – in terms of enhancing innovation and entrepreneurship among those actors, industries and sectors whose potentials in these areas have not currently been sufficiently expressed or effectively supported, with specific focus on women and young entrepreneurs in the cultural and creative industries – they need to cross the limits set by discriminating factors such as gender, age, ethnicity and place (cf. Fenstermaker and West, 2002). They thus need to connect actors and areas with varying degree of power, legitimacy, contacts and other resources (cf. Lindberg, 2014).

The *creative combinations* in the practical cases encompass innovative alignment of separated components and perspectives in projects, networks, spaces and events. Links are created between tourism and cultural and creative industries (e.g. cultural heritage tourism), between tourism and manufacturing (e.g. in industrial tourism), between tourism and green industries (e.g. agritourism and nature tourism), between manufacturing and cultural and creative industries, etc. (ECOMUM in Hungary, Creative Networks and GREEN ROSE in Italy, The Swedish Rural Network in Sweden). Creative combinations are also distinguishable in the ETOPIA art and technology center in Spain, functioning as a culture center, showcase, workshop, training space and a laboratory of ideas between different industries and between public and private sector actors, including intersections of manufacturing industries (videogame industry, electronics companies) and service industries (creative art and

technology, new cultural industries). In the case of StArt: ArtworksMK in the UK, a creatively composed partnership has been constructed, where the UK for Arts funders collaborate directly with government business support services to fund counselling to entrepreneurs in the cultural and creative industries, in order to develop commercialization strategies for creative/cultural products or services, which is very unusual. Another example of creative combinations is the case of CREATE in the UK, where women's expertise, employment and entrepreneurship in the fashion industry was enhanced by recognizing the need for professionalized multi-tasking in the post-industrial economy, enabling the women to develop 'portfolio careers' by keeping their own labels going while undertaking additional jobs, such as part-time teaching and consultancy work for larger companies. In the case of

GREEN ROSE in Italy, experienced women as entrepreneurs (over 45 years old) interacted with young women as researchers and experts (under 35 years old) in the men-dominated field of green innovation and manufacturing. The creative combinations are reflected in previous studies on the alignment of various components and perspectives in order to attain innovation synergies (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Fløysand and Jakobsen, 2011; Lindberg, 2014; Mulgan et al., 2007). In order for these combinations to be innovative in the context of *SMART JUMP* – where the aim is to enhance innovation and entrepreneurship among actors and areas being marginalized in mainstream innovation policy and research, with specific focus on women and young entrepreneurs in the cultural and creative industries – they need to align components and perspectives in a way that acknowledges and addresses hitherto neglected structures of gender and other power-related dimensions in innovation and growth (cf. Alsos et al., 2013; Andersson et al., 2012; Lindberg and Schiffbänker, 2013; Ranga and Etzkowitz, 2010).

The *innovation synergies* in the practical cases encompass increased awareness and harnessing of potential benefits of the cross-sectoral/industrial/organizational cooperation described above, e.g. between tourism and cultural and creative industries, in terms of new markets, new market niches, new products, new sale channels etc., by acquiring adequate competences and tools (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2014; Mulgan et al., 2007). In the case of Creative Networks in Italy, actors from tourism companies and cultural and creative companies have been involved in a process of mutual discovery and trust building, negotiating visions and common/diverging interests, mapping potential connections between goods and services offered by their companies, exploring possible business alliances and formulating concrete business ideas within and between the industries. In the case of The Swedish Rural Network in Sweden, companies in the green industries have innovatively broadened their product range by the development of cultural heritage services. Similar innovation synergies are detectable in the case of ECOMUM in Hungary, where innovative development of entrepreneurship among women and youths in the green industries has been enhanced by developing cultural heritage services, agritourism and ecofarming. In the case of GREEN ROSE in Italy, innovation synergies were created between the men-dominated field of green innovation and manufacturing and women as entrepreneurs, researchers and experts. In the case of Winnet Västra Götaland in Sweden, manufacturing industries have innovatively developed their employer brand by cooperating with women's organizations in the development and application of gender equality certificates and innovative synergies have also been attained by linking women entrepreneurs to new consumer groups by the creation of a digital commercial platform. Innovative services

in manufacturing have also been developed in the case of Campus Francisco de Goya in Spain, where new technologies, international logistics and design are innovatively employed to further develop companies in the fashion and textile design sector. In the case of StArt: ArtworksMK in the UK, innovation synergies were created between service design processes, business modeling and change theory, ensuring the transformation of innovation potential in the ideation stage into practical development of companies, resulting in increased entrepreneurial confidence among women business managers specializing in craft, illustration, visual art within the cultural and creative industries. The same case also innovatively expanded the development and testing of this methodology from the context of cultural and creative industries to other industries, such as pharma, biotechnology and higher

education. These examples of increased awareness and harnessing of potential innovative synergies by cross-sectoral/industrial/organizational cooperation are reflected in research on inclusive innovation, where possibilities for new solutions to individual, organizational and societal needs and challenges are perceived in the intersections of various actors, areas and innovation forms (cf. Blake and Hanson, 2005; Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2014; Mulgan et al., 2007). The practical cases expose innovation synergies that have been attained through awareness and harnessing of the crosscutting, complex and multilevel character of innovation (cf. Fløysand and Jakobsen, 2011).

Innovations

The innovations of the practical cases encompass mainly service and social innovations, but also some other types of innovations. As noted in the introducing section on the Quadruple Helix model, these categories of innovations can in practice be partly overlapping, e.g. as in the case of innovations in digital social media where the technological, social and service aspects intertwine (cf. Fløysand and Jakobsen, 2011; Lindberg, 2012). The classification below of each innovation highlighted in the studied cases is therefore based on the explicit assessments made in each case description.

The ones classified as *service innovations* include a network of ‘open-doors handicraft companies’ for industrial tourism, with reception areas for visitors, visiting paths, co-branded industrial tourism itineraries as well as ‘multisensory package tours’ for cultural tourism, combining cultural events and shows, food and wine tasting, access to handicraft productions etc. (Creative Networks in Italy). The ones classified as *technological service innovations* include a sensor solution embedded in jewelry that measures vital signs, a contact-free payment solution, ‘living history’ for decreasing the digital divide for the elderly, a streaming-like mobile-multimedia service, a next generation cloud-computing platform, 3D media interfaces and content-providing solutions, context-based intelligent mobile applications, a system enabling the remote monitoring of secure living for elderly, a solution assisting the shopping activity of elderly (Mobility and Multimedia Cluster in Hungary). As noted in contemporary innovation research, service innovations have been paid limited attention in scientific and political efforts to understand and support growth and innovation (cf. Blake and Hanson, 2005; Lindberg, 2012; Pettersson, 2007). The service innovations pinpointed in the practical cases of *SMART JUMP* could thus constitute a potential component in the deliberate development of more inclusive patterns of innovation and entrepreneurship, as part of a generally widened scope of actors, sectors, industries and innovations (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2014; Mulgan et al., 2007). The technological service innovations pinpointed in the practical cases do however not deviate from the prevalent norms of high-tech innovation, prioritizing advances in computer electronics, ICT, digital media, gaming etc. rather than in education, health care or occupational safety, potentially reinforcing excluding patterns (cf. Blake and Hanson, 2005; Lindberg, 2012; Pettersson, 2007). In order to enhance inclusive growth and innovation, various forms of service innovations ought to be deliberately balanced in the practical cases of *SMART JUMP* (cf. Fagerberg et al., 2005; Lindberg, 2014).

The innovations classified as *social innovations* in the practical cases include innovative models for involving stakeholders from different sectors, industries and organizations (e.g. Mobility and Multimedia Cluster in Hungary, Creative Networks in Italy, ETOPIA and Campus Francisco de Goya in Spain, The Swedish Rural Network in Sweden), innovative models for skills development among women and young entrepreneurs by combining formal and informal learning (e.g. Campus Francisco de Goya in Spain, CREATE and StArt: ArtworksMK in the UK), a ‘buying group’ of micro-companies for joint purchases of consultancy services such as accounting, legal and fiscal assistance and specialized training (Creative Networks in Italy), the ‘gender equality map’ for digital visualization of spatial distribution of gender (in)equality in municipalities and regions (Winnet Västra Götaland in Sweden), a ‘gender equality management system’ for systemized equality efforts in organizations and societies (Winnet Västra Götaland in Sweden), ‘female marketplace’ linking women entrepreneurs to new customer groups via a digital platform (Winnet Västra Götaland in Sweden). Since social innovations have been paid limited attention in scientific and political efforts to understand and support growth and innovation (cf. Lindberg, 2015; Mulgan et al., 2007), these examples could be considered to contribute to inclusive promotion of innovation and entrepreneurship, as part of a generally widened scope of actors, sectors, industries and innovations (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2014). The pinpointed social innovations could also potentially challenge a one-sided technological view on innovation, by highlighting the crosscutting, complex and multilevel character of all innovations (cf. Fløysand and Jakobsen, 2011), simultaneously encompassing social, technological, organizational etc. dimensions to various degrees (cf. Lindberg et al., 2015; Mulgan et al., 2007). This multidimensional approach to innovation could be more extensively acknowledged and harnessed in the practical cases of *SMART JUMP*, as part of the processes for attaining innovation synergies discussed above. As part of this, the gendered aspects of social innovation distinguishable in some of the cases could be further explored and exploited in intersection with other dimensions, in order to transform gendered delimitations and potentials of socially innovative processes into less stereotype patterns and preconceptions on individual, organizational and societal levels (cf. Lindberg, 2015).

The ones classified as *both service and social innovations* include a ‘maternity desk’ in the public job center (ECOMUM in Hungary), agrimarkets (ECOMUM in Hungary), and think tanks (ECOMUM in Hungary, The Swedish Rural Network in Sweden), ‘local service points’ for innovative co-location of public, commercial and civil services (The Swedish Rural Network in Sweden), training programs for creative companies in cultural entrepreneurship and innovation (ETOPIA in Spain), ‘bush travels’ for public exposure to overgrown agricultural land (The Swedish Rural Network in Sweden), ‘youngagement’ for youths’ involvement in rural development, a guide to gender equality in rural development (The Swedish Rural Network in Sweden). The ones classified as *both social, service and technological innovations* include a makerspace of digital manufacturing by 3D printers (ETOPIA in Spain), art and technology exhibitions where new results and solutions are presented to citizens (ETOPIA in Spain). These examples expose how multidimensional approaches to innovation – including rural, age- and gender-related perspectives – could be more extensively acknowledged and harnessed in the practical cases of *SMART JUMP*, as part of the processes for attaining innovation synergies discussed above (cf. Fløysand and Jakobsen, 2011; Lindberg et al., 2015; Mulgan et al., 2007).

The ones classified as *process innovations* include models for cross-fertilization between different business areas by cross-sectoral entrepreneurship and cluster building (Creative Networks in Italy). These are similar to the ones *not classified* as any specific category of innovation, encompassing the innovative intertwinement of local, regional, national and international levels in the promotion of rural services, employment, entrepreneurship, innovation and development (The Swedish Rural Network in Sweden), innovative business models for creative entrepreneurs using design thinking, service design and user experiences to re-contextualize their creativity and apply it to business and financial modeling as well as to strengthen the relationship with audiences, customers and byers (StArt: ArtworksMK in the UK), an innovative model for business development by group support and individual learning based on design thinking, action learning and coaching, enabling the entrepreneurs to solve complex problems using logic, imagination, intuition, sequential planning and execution while maintaining their values (StArt: ArtworksMK in the UK), ‘event research’ where existing university networks are used to enhance governmental connections for small women-led companies without such contacts, providing a wider and lively environment open to new ideas and opportunities (CREATE in the UK), collaborative partnerships connecting academics to creative professionals for innovative knowledge transfer, online presence, and event organization (CREATE in the UK), a blended learning methodology of joint seminars, tailor-made counselling and common branding with interaction between policy actors, manufacturing industries and women as entrepreneurs, researchers and experts (GREEN ROSE in Italy). In the light of previous research, these examples might be interpreted as innovative forms of the bottom-up, top-down, multi-level and horizontal strategies discussed above, innovatively contributing to inclusive innovation by highlighting the importance of hitherto marginalized contributions to growth and innovation, by interlinking marginalized, generally less resourceful, actors with more institutionalized, generally more resourceful, actors, and by enhancing cross-sectoral/industrial/organizational cooperation and innovation synergies (cf. Carayannis and Campbell, 2009, 2010; Fagerberg et al., 2005; Lindberg, 2012, 2014; Mulgan et al., 2007; Sabatier, 1986).

Gender

The gendered aspects of the practical cases primarily encompass explicit inclusion of women in the role of potential or existing entrepreneurs, as beneficiaries of the efforts (ECOMUM in Hungary, Creative Networks and GREEN ROSE in Italy, The Swedish Rural Network and Winnet Västra Götaland in Sweden, StArt: ArtworksMK in the UK). There are also some examples of inclusion of women as innovators, project managers, unemployed and event participants (ETOPIA in Spain, The Swedish Rural Network and Winnet Västra Götaland in Sweden). Some cases enhance women’s participation in rural development (ECOMUM in Hungary, The Swedish Rural Network in Sweden). In a few cases, women’s organizations are explicitly involved (The Swedish Rural Network and Winnet Västra Götaland in Sweden). Men are mentioned only in a few cases, primarily in the role of entrepreneurs (Mobility and Multimedia Cluster in Hungary, Creative Networks in Italy, Campus Francisco de Goya in Spain). As exposed in the next section, youths constitute additional beneficiaries of the efforts, but are seldom gendered except from a few examples of “young women” (GREEN ROSE in Italy, ECOMUM in Hungary, CREATE in the UK). The focus on women in the practical cases might be interpreted as an attempt to “do” gender differently in relation to

entrepreneurship and innovation (cf. West and Zimmermann, 1987), by including women as a previously marginalized group of actors in political and scientific efforts (cf. Blake and Hanson, 2005; Lindberg et al., 2012; Pettersson, 2007). The gendering of women but not men in the practical cases risks however to obscure the mutual doing of gender by women as well as men, which both need to change their preconceptions and actions in order to transform prevailing structures into less segregating and hierarchical forms (cf. Acker, 1999; West and Zimmermann, 1987). Dualistic conceptualizations of gender in terms of ‘women’ and ‘men’ as unified and mutually exclusive groups might also obscure the multifacetedness of power-related structures, where gender intersects with age, class, ethnicity etc. (cf. Fenstermaker and West, 2002). Those practical cases that have managed to delineate further specifications of women and men as beneficiaries – such as young, immigrant, rural or unemployed women – might therefore have a greater potential to challenge and change prevalent gender structure in growth and innovation.

Quantitative representation of women and men is however insufficient in order to attain inclusive growth and innovation, since the qualitative aspects of gendered patterns and preconceptions may still remain despite quantitative changes (cf. Acker, 1999; McRobbie, 2009). Some of the practical cases explicitly address ‘equality’ or ‘gender equality’ (ECOMUM in Hungary, ETOPIA in Spain, The Swedish Rural Network and Winnet Västra Götaland in Sweden), with varying meaning. Some emphasize the quantitative aspect of equal representation in panels and evaluation teams and among speakers and experts (ETOPIA in Spain). Women’s participation in commonly men-dominated activities and fields, such as digital technologies, green industries and green economy, is explicitly addressed in a few cases (ECOMUM and Mobility and Multimedia Cluster in Hungary, GREEN ROSE in Italy, ETOPIA in Spain). A few of the cases introduces a qualitative aspect of quantitative representation by discussing the low percentage of women participating in its activities as related to the technological – symbolically masculine – focus of several of the involved creative companies (ETOPIA in Spain) and the marginalization of women in prevalent innovation support systems as due to their traditional focus on men-dominated industries (Creative Networks in Italy). Other cases address qualitative aspects of gender by investigating women’s needs and tailor supportive efforts accordingly (Creative Networks in Italy, Winnet Västra Götaland in Sweden), by linking gendered aspects of entrepreneurship and innovation to other aspects such as ecological sustainability, marketing and manufacturing (GREEN ROSE in Italy), and by developing social innovations specifically designed to challenge and change gendered structures in organizations and societies, such as the ‘gender equality map’, ‘gender equality management system’ and ‘female marketplace’ described in the previous section (Winnet Västra Götaland in Sweden). The concept of ‘gendered social innovation’ can be used to highlight and understand the mechanisms in these cases of identifying societal challenges of gender inequality and unmet social needs among various women as marginalized groups in growth and innovation, of developing solutions to these challenges and needs through gender-inclusive processes, and of intending to transform gendered structures on individual, organizational and societal levels (cf. Lindberg et al., 2015). This concept could be more extensively and strategically used in the practical cases of *SMART JUMP* to design joint, inclusive processes for growth and innovation.

There is a general lack of discussion in the practical cases on the intended changes of prevalent gendered structures in growth and innovation. This is reflected in the fact that the

project description of *SMART JUMP* does not explicitly mention ‘gender equality’. It states, however, that women in the creative industries sector constitute one of the main beneficiaries of the project and that discriminating factors – such as gender, age and entrepreneurial experience – in gaining access to learning opportunities, are to be addressed in the methodological framework of the project. The project description also provides statistics on the percentage of women among European managers and entrepreneurs (<30%), but also recognizes that the rapid development of sectors such as the cultural and creative industries has the potential to counteract societal challenges such as youth unemployment, motivating efforts to promote these industries where many women are active as employees, entrepreneurs or innovators (cf. SMART JUMP, 2015). The main agenda of the project thus seems to be to open up entrepreneurial and innovative opportunities to women (and youth) as well as to the cultural and creative industries (where several women are engaged as employees, entrepreneurs or innovators), as previously marginalized actors and areas in public efforts and scientific studies (cf. Lindberg, 2012). It is however uncertain if these ambitions are attainable without acknowledging and addressing the underlying power-related structures, that served to create and still serve to reinforce the prevalent gendered patterns and preconceptions in entrepreneurship and innovation (cf. Blake and Hanson, 2005; Lindberg and Schiffbänker, 2013; Pettersson, 2007). As pointed out by McRobbie (2009, 2016), the individualistic discourse of gender equality in the political and institutionalized spheres – manifested e.g. in the conceptualization of women’s entrepreneurship and flexible labor in the cultural and creative industries as “empowering” and “liberating” – implies an instrumentalization and disarmament of the more fundamental power-dynamics of women’s subordination in organizations and societies. To truly transform gendered structures of growth and innovation, the practical cases of *SMART JUMP* would have to acknowledge and address fundamental power-related structures, e.g. possible counteracting and restoring forces on individual, relational, symbolical and structural levels when implementing efforts to increase women’s participation in joint innovation processes (cf. Acker, 1999), as well as intersecting power-related structures such as gender, age, class and ethnicity (cf. Fenstermaker and West, 2002).

Age

Youths are pinpointed as beneficiaries in several of the practical cases, most often referred to as “young people”, “young entrepreneurs” or “young professionals” (ECOMUM and Mobility and Multimedia Cluster in Hungary, Creative Networks in Italy, ETOPIA and Campus Francisco de Goya in Spain, The Swedish Rural Network in Sweden). The project description of *SMART JUMP* explicitly states that “young persons” in the creative industries sector constitute one of the main beneficiaries of the project (SMART JUMP, 2015). In some cases, “young women” are explicitly focused (ECOMUM in Hungary, GREEN ROSE in Italy, CREATE in the UK). In one of the cases, youths are specifically targeted by a contest for young designers, aiming to unite design and creativity in the fashion industry (Campus Francisco de Goya in Spain). In another case, young women are involved as experts and researchers in sustainable design, green production, green marketing etc. (GREEN ROSE in Italy). Another case recognizes that there are a lot of startup SMEs in the areas of mobile technologies and new media which are managed by young entrepreneurs (Mobility and Multimedia Cluster in Hungary). The presence of young entrepreneurs is also recognized as high among the companies at the art and technology center focusing contents, multimedia and 3D, videogames and design (ETOPIA in Spain). Another case assesses that the cultural and

creative industries have great potential to employ young people, acknowledging that the employed procedures of supporting cross-sectoral entrepreneurial venturing could be further developed in order to be more inclusive and receptive towards the need of young entrepreneurs (Creative Networks in Italy). In contrast to the focus on youths, two cases explicitly focus elderly as beneficiaries of the developed innovations, by innovative systems for remote monitoring of secure living for elderly and digital shopping assistance for elderly (Mobility and Multimedia Cluster in Hungary) and by involving women over 45 years old as experienced entrepreneurs (GREEN ROSE in Italy).

The inclusion of youths does not seem to have been specifically addressed in scientific studies of the Quadruple Helix model (cf. Afonso et al., 2010; Arnkil et al., 2010; Carayannis and Campbell, 2009, 2010; Lindberg et al., 2012, 2014; Mac Gregor et al., 2010; Maldonado et al., 2009), nor in other studies of inclusive innovation (cf. Blake and Hanson, 2005; Fagerberg et al., 2005; Lindberg, 2012, 2014; Mulgan et al., 2007; Pettersson, 2007). The further development of the concept of ‘doing gender’ (West and Zimmermann, 1987) into ‘doing difference’ (Fenstermaker and West, 2002) provides nevertheless an approach to address age as a power-related structure, in intersection with other dimensions such as gender, class and ethnicity in the continuously “doing” of patterns and preconceptions on individual, relational, symbolical and structural levels in organizations and societies (cf. Acker, 1999). Such an approach could be employed in the practical cases of *SMART JUMP* to acknowledge and address those underlying power-related structures in joint processes for growth and innovation that serve to reinforce the excluding structures that the project intends to transform into more inclusive structures in relation to women, youths and the cultural and creative industries (cf. Blake and Hanson, 2005; Lindberg and Schiffbänker, 2013; Pettersson, 2007).

Conclusions

This section presents the main conclusions from the analysis of the practical cases in the project *SMART JUMP*. Employing previous research on inclusive innovation, including the Quadruple Helix model, the analysis elucidated the spectrum of actors, areas, industries, sectors and innovation forms as well as patterns of interaction, innovation synergies, gender and age, in order to provide knowledge on the scope of present and potential inclusion in joint processes for growth and innovation, with specific focus on women and young entrepreneurs in the creative industries sector. The analysis exposed variance in the scope and depth of inclusion between the cases, implying both potentials and delimitations regarding the prospects of enhancing entrepreneurship and innovation among previously marginalized actors, areas and innovation.

The variance in scope and depth partly regards the *addressed needs and proposed solutions* in the practical cases, mainly encompassing innovative development of the cultural and creative industries, sometimes in intersection with manufacturing industries, green industries and rural areas, reflecting the need to study and promote growth and innovation in a more inclusive manner than before, where not only development and implementation of technological product innovations in manufacturing and high-tech is acknowledged, but also social and service innovations in the cultural and creative industries. The distinguished needs and solutions of the practical cases also to encompass women as entrepreneurs, innovators or

unemployed, as well as gender equal growth and innovation, reflecting a simultaneous need to acknowledge and address gendered structures in joint processes for innovation and growth, in terms of gendered patterns and preconceptions on individual, relational, symbolical and structural levels in organizations and societies.

The variance in scope and depth also regards the encompassed *areas, industries and sectors* in the practical cases, including three primary categories of areas (cultural and creative areas, green industries, support), four main categories of industries (cultural and creative industries, services industries, manufacturing industries and green industries) and all four societal sectors (public, private, academic/educational, civil). The included areas, industries and sectors reflect the need to study and promote growth and innovation in a more inclusive way, in order to compensate for the previous marginalization in policy efforts and scientific studies, and also partly reflect the need to address gendered and other power-related structures in joint processes for innovation and growth. The need to balance industries and sub-areas with differing gender-composition and symbolical genderedness in each of the practical cases is underlined, since it determines the overall potential to promote inclusive growth and innovation. Relatively unexploited inclusive potentials are detected in the potential role of the public sector as an arena for the development and implementation of public services, in the potential role of the academic sector as provider of everything from generic knowledge and simple mappings to complex analyses, in the potential role of women's organizations and networks as intermediaries for connecting with women as a previously marginalized group in joint efforts for growth and innovation.

The variance in scope and depth thereto regards *actors and target groups*, encompassing the inclusion of both new and established companies of various size, business/job promoters, public authorities on various levels, academic/educational actors and civil society actors, reflecting the actors highlighted in the Quadruple Helix model. It is highlighted that the separate but interacting roles of entrepreneurship and innovation ought to be clarified in each practical case, and the distribution of efforts between entrepreneurship and innovation ought to be deliberately balanced, in order to enhance inclusive growth and innovation. The dominance of women and youths as target groups reflects two interacting dimensions of power-related structures in growth and innovation – even if the latter remain rather unacknowledged in studies on inclusive innovation – and is to some extent complemented by a third dimension of ethnicity, exposing a potential to expand an intersectional approach to more of the practical cases in *SMART JUMP* in order to enforce the project's inclusive ambitions. The perceived opportunities and difficulties of the target groups reflect the scientific distinction of the previous incapacity of harnessing the innovative and entrepreneurial potential among a multitude of actors, sectors, industries and innovations, which could be used as a potential springboard for better understanding and promoting the crosscutting, complex and multilevel character of innovation in the practical cases of *SMART JUMP*.

The variance in scope and depth also regards *strategies and synergies* expose combinations of bottom-up, top-down, multi-level and horizontal strategies, concluding that bottom-up strategies can form the basis of inclusive innovation by highlighting the importance of hitherto marginalized contributions to growth and innovation, that top-down strategies can form the basis of traditional management models for growth and innovation by mainly

highlighting the importance of institutionalized, established and resourceful actors, areas and innovation forms and thus motivating the development of more inclusive models such as the Quadruple Helix, that horizontal strategies can connect previously separated actors and areas as fundamental to the Quadruple Helix model, and that multi-level strategies can connect actors and areas with varying degree of power, legitimacy, contacts and other resources and thus evoke empowering effects on people's abilities to contribute to and gain from joint processes for growth and innovation. One of the main conclusions is that in order for interaction to be inclusive – in terms of enhancing innovation and entrepreneurship among marginalized actors and areas, with specific focus on women and young entrepreneurs in the cultural and creative industries – they need to cross the limits set by discriminating factors such as gender, age, ethnicity and place. Another conclusion is that in order for creative combinations to be inclusive, they need to align components and perspectives in a way that acknowledges and addresses hitherto neglected structures of gender and other power-related dimensions in innovation and growth. An additional conclusion is that innovation synergies can be attained through awareness and harnessing of the crosscutting, complex and multilevel character of innovation, exploiting the possibilities for new solutions to individual, organizational and societal needs and challenges in the intersections of various actors, areas and innovation forms.

The variance in scope and depth furthermore regards *innovations*, exposing that the dominance of service and social innovations in the practical cases of *SMART JUMP* reflects the project's intention to promote more inclusive patterns of innovation and entrepreneurship, by widening the scope of innovation forms from the previous focus on technological product innovations to a multitude of separate and intersecting forms. In order to attain this, the technological innovations promoted in some of the practical cases ought to be deliberately balanced with more socially oriented innovations. An aligned conclusion is that the gendered aspects of social innovation distinguishable in some of the cases could be further explored and exploited in intersection with other dimensions, in order to transform gendered delimitations and potentials of socially innovative processes into less stereotype patterns and preconceptions on individual, organizational and societal levels. An additional conclusion is that the examples of process innovations and unclassified innovations, encompassing innovative intertwinement of various actors, areas and levels, might contribute to inclusive innovation by interlinking marginalized and established actors and by enhancing cross-sectoral/industrial/organizational cooperation and innovation synergies.

The variance in scope and depth additionally regards *gender* where the focus on women in several of the practical cases might be interpreted as an attempt to “do” gender in relation to entrepreneurship and innovation in a more inclusive manner, in the light of the prevalent masculine norms of political and scientific efforts. One conclusion is that the delineation of further specifications of women and men as separate groups of beneficiaries – such as young, immigrant, rural or unemployed women – implies greater potential to challenge and change prevalent gender structure in growth and innovation. Another conclusion is that quantitative representation of women and men needs to be balanced by qualitative perspectives on power-related structures between women and men in innovation and entrepreneurship, in order to attain inclusive growth and innovation, since the qualitative aspects of gendered patterns and preconceptions may still remain despite quantitative changes. An additional conclusion is that the concept of ‘gendered social innovation’ could be more extensively and strategically used

in the practical cases of *SMART JUMP* to design joint, inclusive processes for growth and innovation by identifying societal challenges of gender inequality and unmet social needs among various women as marginalized groups in growth and innovation, of developing solutions to these challenges and needs through gender-inclusive processes, and of intending to transform gendered structures on individual, organizational and societal levels. In order to realize the ambition of the project to open up entrepreneurial and innovative opportunities to women (and youth) as well as to the cultural and creative industries (where several women are engaged as employees, entrepreneurs or innovators), the intersection of various power-related structures such as gender, age, class and ethnicity and possible resistance in terms of counteracting processes on individual, relational, symbolical and structural levels needs to be acknowledged and addressed in the practical cases of *SMART JUMP*.

The variance in scope and depth additionally regards *age* exposes that while youths are pinpointed as beneficiaries in several of the practical cases, they do not seem to have been specifically addressed in scientific studies of the Quadruple Helix model, but that a ‘doing difference’ approach could be employed in the practical cases of *SMART JUMP* to acknowledge and address those underlying power-related structures in joint processes for growth and innovation – including age, gender, class and ethnicity – that serve to reinforce the excluding structures that the project intends to transform into more inclusive structures in relation to women, youths and the cultural and creative industries.

The analysis confirms that the inclusiveness of the Quadruple Helix model makes it suited for the realization of the ambitions in the project to enhance entrepreneurship and innovation among those actors, industries and sectors whose potentials in these areas have not currently been sufficiently expressed or effectively supported. It is furthermore confirmed that the Quadruple Helix model provides stakeholders in various sectors with a logical model of identification, interaction and intervention adding value to their role and functions in the implementation of policies supporting the cultural and creative industries, including the perceived need to provide solutions to increasing societal and industrial changes as well as to meet the increasing need of innovative services among manufacturing companies. By applying the above conclusions, the project partners of *SMART JUMP* could improve their support of innovation and entrepreneurship among women and youths in the cultural and creative industries, to fine-tune their training offer/content at local level, and to design communities of entrepreneurs and professionals from the private, public, civil and academic/educational sectors, in relation to national and regional strategies of growth and innovation.

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