

Social design for inclusive local learning ecosystems: an entrepreneurial cultural affinity approach

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Abstract

INTRODUCTION: The ECAS (Entrepreneurial Cultural Affinity Spaces) framework seeks to transform social design theory and practice, through an emergent instructional paradigm of heritage-led, local learning ecosystem approaches, to leverage on diverse assets of people in community settings.

OBJECTIVES: This paper addresses the theoretical backdrop of how such ecosystems can be co-designed, implemented, and evaluated, to include disadvantaged and underrepresented groups.

METHODS: We seek to introduce the ECAS framework and how it can present an inclusive and open instructional paradigm that improves design for social change, innovation, and entrepreneurship in practice.

RESULTS: In this paper, we address implementation through an Erasmus Plus, Adult Education research project, discussing the framework, conditions, and support mechanisms developed.

CONCLUSION: Reconfiguration of design for social change and our collective mind-set, will create the conditions for more dynamic and powerful collaborations that stimulate and enable social innovation, entrepreneurship and inclusion.

Keywords: urban regeneration, local learning ecosystems, embodiment, entrepreneurship, social innovation, circular economy, social design, underrepresented groups, social inclusion, social impact.

Received on 22 June 2020, accepted on 04 July 2019, published on 16 July 2019

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doi: 10.4108/eai.30-7-2019.162947

1. Introduction

This research assumes a position of critical strategic importance and addresses how real-world local learning ecosystems can be co-designed, implemented, and evaluated to become an inclusive and open instructional paradigm that improves design for social change, innovation, and entrepreneurship education, in response to significant local and global imperatives and challenges. It is evident that Europe is faced with diverse and large-scale social challenges, including the influx of refugees, unemployment, cultural intolerance, socially marginalised groups and others. Such a situation requires innovative and sustainable responses to address the challenges posed and further to seek ways in which the opportunities deriving from them can be framed and facilitated.

According to the recent UNCTAD Creative Economy Report [1], the creative economy, and in particular the cultural and creative industries, have seen unprecedented growth in the past two decades. This rise in creative economy sparked innovation and knowledge transfer across all sectors of the economy, whereas it is evidently an important sector to foster inclusive and sustainable development, sharing both commercial, social and cultural value. A notable shift is evident from developing arts and cultural management skills to cultural entrepreneurship. Particular emphasis is placed on ideation and start-up of cultural non-profit and for-profit businesses. In recent decades, the globally creative economy has grown considerably, such that the cultural sector is regarded as the fifth largest economic industry after financial industries, informational industries, medicine and tourism [2]. The knowledge-based, highly-skilled creative workforce is rapidly growing both locally

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and globally [3]. Yet, despite an obvious rise in the percentage of women who join the labour market in the last 50 years, it is still less possible for women to be involved in entrepreneurship [4].

Our research focuses on cultural and creative entrepreneurship and links it with the role of cultural heritage for sustainable development. Cultural heritage is considered a non-renewable resource of identity and a catalyst for sustainable development, through monetary and non-monetary values [5]. However, its preservation and utilization confront many binding barriers, resulting in profound abandonment and decay. As the Habitat III paper by UNESCO, Urban Culture and Heritage notes, the contemporary city calls for a new model of urban development, consistent with the Sustainable Development Goals (SDGs), particularly SDG 11 'Sustainable cities and communities' [6]. There is a need for a more systematic and comprehensive 'culturally sensitive' urban development approach, which recognizes that culture is a driving force in the development of cities. Social, creative and cultural entrepreneurship in community-led co-working spaces (CLCSs) [7], can boost heritage-led urban regeneration, but needs specific support to grow.

The ECAS framework, provides the groundwork of how to move from theory to practice, in order to fulfil the Sustainable Development goals proposed for Agenda 2030. It is a research-based, open innovation-driven infrastructure, which strategically responds to this challenge, by developing the conditions for entrepreneurial solutions, products and services supporting viable, integrated and participative urban regeneration. The intention is to establish this heritage-led cultural entrepreneurship urban regeneration paradigm, as a powerful tool to turn urban areas experiencing decay and abandonment, into sustainable development hubs of entrepreneurship and social and cultural integration. Key domains to address include social innovation, cultural entrepreneurship, skill training, employability, well-being and the social and cultural integration issues.

2. Rationale

This research relates to significant local and global imperatives and challenges at the crossroads of lifelong learning and informal education for social design, innovation and entrepreneurship. Our fast-paced world requires reconsideration of the conditions to foster critical skills, such as problem-solving, reflection, creativity, critical thinking, learning to learn, risk-taking, collaboration, and entrepreneurship, essential to the adaptive capacity future job seekers need [8].

Education should be the means through which society overcomes the digital divide's challenges, gaps, and barriers, information flow imbalances, growing economic and social inequality, religious, ethnic, and cultural divides, labour market disruption, and ecological pressures [9]. While several initiatives address new ways

of learning and new organizational forms work to transform education, including the OECD's Education 2030 project [10], formal education remains somewhat impervious to society's evolving challenges. The European Commission Overview of Employment and Social Developments in Europe in 2015 [11] revealed that "the lack of entrepreneurship education remains a significant bottleneck to stimulating self-employment and entrepreneurship in the EU." The 2016 EURYDICE report on entrepreneurship education concludes that the uptake of entrepreneurship education in the EU is still behind, and several sociocultural obstacles constrain the development of entrepreneurship and self-employment [12]. In America, immigrants are much more likely to start businesses than the US-born [13], however, 92% of venture capital-backed US companies have male founders, of which 87% are white [14].

Throughout Europe and the US, there are numerous attempts on the adaptive development of tangible and intangible cultural heritage, viewed as a non-renewable resource and a catalyst for bottom-up, endogenous sustainable development, through contribution to well-being, job creation and social cohesion [6, 15]. Still, certain socio-cultural groups are not sufficiently integrated in cultural heritage experiences [16].

As few people experience educational empowerment through conventional schooling alone [17], the concept of local learning ecosystems is gaining momentum worldwide, in an attempt to radically transform education to enable all citizens to deal with future working demands. Katherine Prince from KnowledgeWorks [17], stresses the need "to design intentionally for a vibrant learning ecosystem, otherwise we risk creating a fractured landscape, in which only privileged learners have access to learning that adapts to and meets their needs".

Our standpoint is that informal education provides more promise to design for social change and sustainability, through addressing the unexplored potential in local learning ecosystems that unfold in informal, community-led co-working spaces (CLCSs), usually not-for profit ventures/hubs that accommodate creative individuals. The ECAS framework will offer a concrete manifestation of transforming theory to practice to fulfil Agenda 2030's SDGs [10]. It is innovative, as it bridges a gap by the conceptual framework and practical implementation to test its feasibility.

Despite substantial literature on the learning ecosystems concept, there has been no specific pedagogical framework for developing and evaluating local learning ecosystems, nor accessible online practice guides [17]. Furthermore, empirical research on real-world learning examples is lacking, especially in relation to the changes in and around ecosystems for learners and providers [17]. It is anticipated that social design for heritage led regeneration can be advanced and improved through ECAS by empowering:

- a) Adult educators and community facilitators
- b) Disadvantaged/marginalized groups
- c) Organizations that facilitate informal learning

This research addresses how such ecosystems can be co-designed, implemented, and evaluated to include disadvantaged and underrepresented groups, such as minorities, women, migrants, refugees, and asylum seekers, and to empower them as lifelong learners and change-makers. The research also addresses inclusive local learning eco-systems' barriers and enablers, as proposed in a recent WISE report (see Fig.1). We seek to demonstrate how real-world local learning ecosystems can present an inclusive and open instructional paradigm that improves design for social change, innovation, and entrepreneurship in practice, through the educational framework, conditions, and support mechanisms developed.

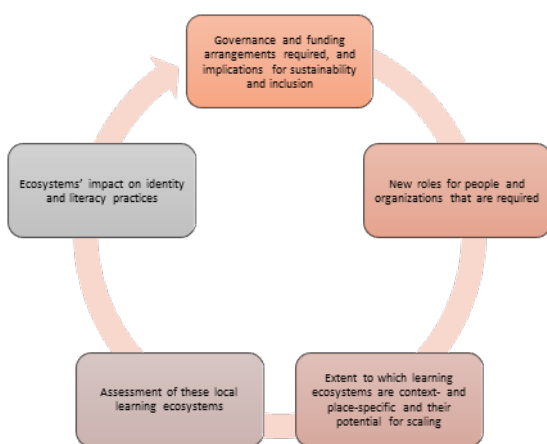


Figure 1. Pillars to explore local learning ecosystems' barriers and enablers. Adapted by Hannon et al. [17]

2.1. Research objectives

The intention of the ECAS framework, is to establish this new heritage-led cultural entrepreneurship urban regeneration paradigm, as a powerful tool to turn urban areas experiencing decay and abandonment, into sustainable development hubs of entrepreneurship and social and cultural integration, through targeting the areas of social innovation, cultural entrepreneurship, skill training, employability, well-being and the social and cultural integration issues.

To explore the pillars in Figure 1, the research is centred around four core research questions:

1. What is the relationship between heritage-led cultural entrepreneurship and urban regeneration?
2. How can socially sustainable, inclusive ecosystems be co-designed, implemented, and evaluated to address different disciplines, age levels, and cultural contexts?
3. What are the aspects of entrepreneurial culture that help build and sustain local learning ecosystems in urban areas that experience decay and abandonment and what are the experiences, rituals, tools, and

spaces that support such entrepreneurial capacity for diverse individuals?

4. How can adult educators and facilitators include disadvantaged and underrepresented groups, such as minorities, women, migrants, refugees, and asylum seekers to empower them as lifelong learners and change-makers?

The innovation potential of the proposal lies in tangible impact, through addressing the specific objectives: To provide evidence-based systematic evaluation of the economic, social, cultural and environmental impacts of integrated urban regeneration practices drawing on entrepreneurial solutions, stressing the significance of heritage-led solutions considering sustainability and growth; (OBJ1) To provide participatory policy guidelines at a pan-European scale, which address established barriers and bottlenecks in relation to cultural heritage systemic urban regeneration entrepreneurial approaches, integrating the locals' voices while maintaining the character and identity of the historic urban areas and cultural landscapes; (OBJ2)

To develop, implement and evaluate, innovative urban regeneration governance models and a set of evidence-based, participative, usable, scalable and replicable decision support evaluation intelligent system tools, to improve policy and management options/choices on systemic urban regeneration through cultural entrepreneurship, in lines with the circular economy; (OBJ3)

To contribute to the creation of new jobs through capacity building and training in the circular economy through heritage-led solutions and services, targeting in particular under-represented groups, such as women, migrants and refugees and ethnic minorities; (OBJ4)

To contribute to the monitoring and implementation of SDGs, in particular SDG11 and the New Urban Agenda; (OBJ5)

To consolidate the role of cultural heritage as the fourth pillar of sustainable development and contributor to economic growth, social inclusion and sustainability in urban areas. (OBJ6)

3. Conceptual framework

According to evidence from the European Commission [18], any attempt to design for social change, should take into consideration the complexity of 'inter-connected ecosystems', such as attitudes and relevant cross-disciplinary knowledge domains. Factors identified include awareness of social, personal, economic, cultural, technological, physio-logical and political factors, as well as interaction with the areas of technology and behavioural and economic sciences. In a previous paper, we noted the need to consider also the knowledge of tools and strategies that support participatory and collaborative solution-focussed strategies [19].

Towards this end, it is important to consider the aspect of 'resilience', in relation to social innovation [20]. This

‘systemic approach’ identified by the Waterloo Institute for Social Innovation and Resilience [20], acknowledges how emergent needs are often adapted to existing systems [21]. The intention in ECAS is to develop a circular, design-led approach that incorporates understanding of a ‘think like a system, act like an entrepreneur approach’, following a design thinking logic akin to the double diamond proposed by Conway, Masters and Thorod [22]. In this conceptualization, the first diamond is about the problem discovery and understanding systemic conditions. The second diamond is about understanding how to act opportunistically like an entrepreneur to achieve change. Firstly, specific emphasis is put on the stages of learning ecosystem development, and secondly, the impact of learning ecosystems on existing learning provision [19]. The key principles of sustainability: environmental, social and economic, will be explored alongside pillars of knowledge-based urban sustainable development: socio-cultural development, urban development, economic development, sustainability capacity, and organizing capacity (see Fig. 2).

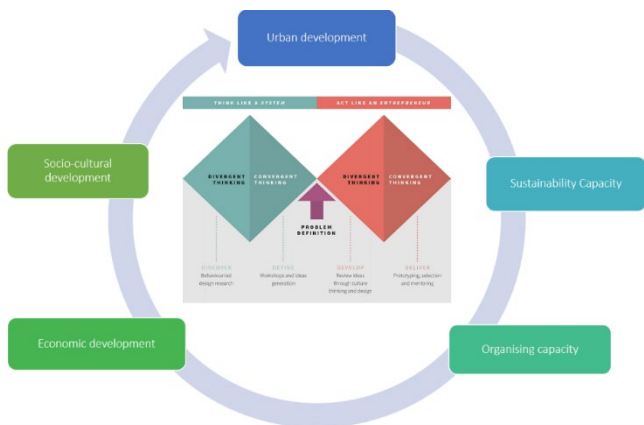


Figure 2. ECAS development cycle

3.1. ECAS theoretical synergies

Central in the ECAS framework, is the understanding of the importance to design for, and with local learning ecosystems in mind. This local learning ecosystem approach allows connections across formal, informal, and everyday learning [23]. Simply put, learning ecosystems comprise diverse provider combinations (schools, businesses, community organizations, and government agencies), creating new learning opportunities and pathways to success [24]. Of essence are the cultural geographies of the place, the patterns and interactions of human culture, both material and non-material, in relation to the natural environment and the human organization of space. The ECAS conceptual framework draws on sociocultural and holistic conceptualizations of pedagogy as cultural interventions in human development. In every community, different cultural factors and interactions act as cultural assets -material, immaterial, emotional, or even spiritual- to form creative cultural clusters [2]. The

aspiration is to establish an ecosystem framework that nurtures cultural entrepreneurship (CE) 3.0. The term CE 3.0, relates to “cultural making,” or the extent to which culture is both a medium (a “deploying”) and an outcome (a “making”) of entrepreneurial action [25].

Interweaved in the ECAS ecosystem, are the creative synergies of co-creation and capacity building, through overlapping learning ecologies at place (see Fig. 3). The intention with ECAS, is to create hubs of entrepreneurship in “community led co-working spaces” (hereafter CLCSs), as not-for profit ventures that accommodate different creatives, in an informal and more community-driven type of co-working space.

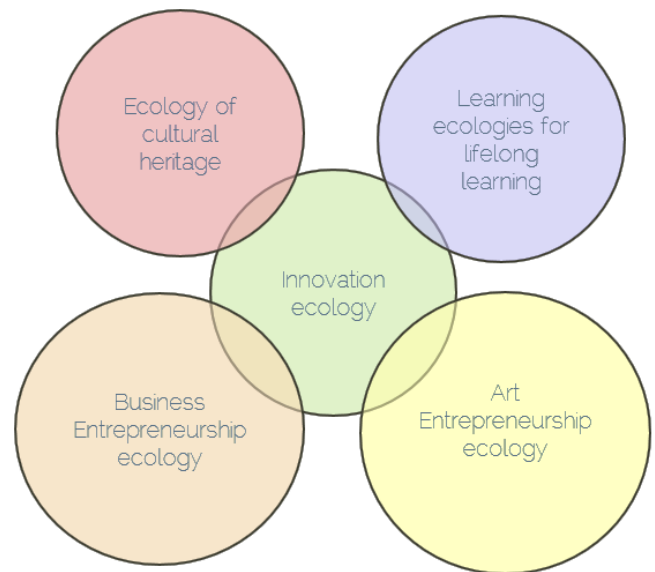


Figure 3. ECAS ecological learning synergies

These learning ecologies are brought to life in virtual or physical affinity spaces [26], acting as CLCSs. Affinity spaces are social learning spaces where people interact and share ideas based on common interests, endeavours, goals, or practices, irrespective of race, gender, age, disability, or social class [26]. To nurture learning that facilitates flexible, “multi-skilled profiles” and “multi-contextual learning practices” [27], we pertain to multiliteracies and embodied learning theories. Multiliteracies framework of thought [28, 29] acknowledges the complexities of practices, modes, technologies, and languages that people need to engage in the contemporary world as they navigate changes every day [30].

Embodiment is often defined as “how culture gets under the skin” [31]. -As noted by Csordas [32]: “If embodiment is an existential condition in which the body is the subjective source or inter-subjective ground of experience, then studies under the rubric of embodiment that are not about the body per se. Instead they are about culture and experience insofar as these can be understood from the standpoint of bodily being-in-the-world. Also of interest here is enacted embodiment. The most successful

projects place emphasis on the participants' development, the creative processes and artistic outcomes [33].

Embodied learning relates to the multiliteracies discourse, as a theory which emphasizes the use of the whole body in educational practice [34]. This research explores in particular a novel concept, namely "embodied entrepreneurial identity" proposed by Kasperova and Kitching [35]. Entrepreneurial identity refers to a distinct set of meanings, attitudes and beliefs, attributes, and subjective evaluations of behaviour, which define an entrepreneur [36]. We assert that to develop inclusive local learning ecosystems such as ECAS, it is crucial to consider the whole body and embodied non-linguistic practices, such as movement, posture, gestures, and facial expressions in the formation of identity [37]. Interestingly though, the entrepreneur in entrepreneurship education is in fact usually disembodied, as a result of gendered stereotypes [38]. Aspiring to empower individuals belonging to diverse communities as emergent entrepreneurs, we recognize how they potentially possess particular embodied properties and powers, crucial for understanding identity and action.

4. ECAS Infrastructure

The ambition of the ECAS framework is to go beyond the current state of art and provide a transdisciplinary forum for knowledge sharing, promoting substantial coordinated and balanced research and innovation cooperation in relation to urban re-generation. To substantiate the ECAS framework, a particular infrastructure is essential. Some important directions include to:

- a) Strengthen the literature on the added value of cultural heritage in sustainable urban development [39] with multidimensional indicators for the impact (ECAS Knowledge Repository).
- b) Develop open innovation tools for heritage led urban regeneration decision making, which could provide with incentives to mobilize investments in the sector leading to the emergence of a global market for heritage-led innovative solutions and services (ECAS Decision Path).
- c) Develop new business and governance models of dedicated fast-track acceleration program for start-uppers and individuals (ECAS Cycle).
- d) Establish long-term cross-border collaborations and sharing of knowledge, formal and informal, on heritage led integrated urban regeneration (ECAS Knowledge Society).
- e) Bridge the gap on the characteristics of CLCSs, through empirical research during the implementation of the ECAS framework.

The ECAS Repository, an online platform, will support the local learning ecosystems, through an open access tool, the ECAS Path. Building on previous sectorial research, the ECAS Path, is a Decision Support System (DSS), which makes use of predictive applications (Intelligent Analytics) to process large amounts of

information in real-time that will run both in the Cloud and on-premises, using Agile Scrum Methodology that will integrate into a systemic tool a set of specific planning, design, economic and multi-criteria analysis indicators able to support decision-makers in urban regeneration management choices and design choices. The intention is to develop, implement and evaluate the ECAS Path in pilot areas and merge real-time analytical processing with on-the-spot decision making. Geographical Information System (GIS) and Remote sensing techniques can supplement the software, as a decision support tool for planning inclusive cultural management, research and practice (implementation of cultural equity plans). The ECAS Repository will also feature:

- a) Analysis of gaps and conflicts in nurturing local learning ecosystems through the ECAS Cycle, in particular for diverse audiences.
- b) The ECAS Framework with real-time implementation examples (ongoing projects).
- c) The ECAS Toolkit on the go; the design principles for implementing the ECAS framework and evaluating the programs.
- d) The ECAS Courses as practical guidelines and resources for community practitioners and educators.
- e) An online network of ECAS-makers to enable virtual connection and cooperation.

5. Implementation, Evaluation and Limitations

A concrete implementation of the ECAS framework, is applied through an Erasmus Plus, Adult Education research project. The project, entitled Cultural and Arts Entrepreneurship in Adult Education (CREATION), kick-started in November 2019, and will run until October 2021. The intention through the CREATION project is to explore the theoretical roots, pedagogical approaches, and practical training in and for cultural entrepreneurship, targeting specifically under-represented groups, being women who come from marginalised backgrounds (migrants, refugees and asylum seekers). The Consortium consists of seven (7) partners from across Europe (Portugal, Greece, Cyprus, Ireland, Italy, and Germany) and the varied intellectual outputs proposed include:

- The development of the Pedagogical Framework for the project;
- A toolkit of resources to build basic cultural entrepreneurial skills and competences;
- A train-the-trainer course for adult educators to enable them to harness the potential of cultural and arts entrepreneurship;
- Design the assessment scheme for Open Digital Badges Micro-Credentials System;
- CREATION Blueprint Package, which includes an Adaptation and Policy Package for sustainable

development of cultural and arts entrepreneurship education to be introduced in the labour market.

The contextual backdrop for this project, is analysed below, as well as the methodological path to follow.

5.1. Context

There is evidence to show that today's youth are increasingly interested in making a positive social impact through their careers and business models [40]. Especially millennials, are interacting with non-profits and causes totally differently than their predecessors [41]. 90% of millennials like to relate to social impact initiatives, as they are optimistic about future prospects, with 86% believing their actions can impact the world [42]. At the same time, over 50% of global consumers are more likely to buy products that relate to a business or cause with social purpose [43]. More commonly, the term "social impact" is used to define actions which have a positive impact on communities.

In respect to inclusive and sustainable industrial development, it is critical to harness the economic potential of women – half of the world's population [4]. It is estimated that, over 870 million women who have been living or contributing at a subsistence level will enter the economic mainstream for the first time as producers, consumers, employees and entrepreneurs [4]. Female entrepreneurs are considered as holding great potential for job creation and having the power to substantially contribute to economic growth [4]. However, it seems that female entrepreneurs are underperforming, whereas their exclusion from access to financial and economic opportunities, assets and resources, is visible, especially in third countries. There is an evident gender gap in entrepreneurship [44].

Even more visible is the gap in the case of underrepresented groups: female entrepreneurs who are migrants, refugees or asylum seekers. The terms 'migrant' and 'refugee' are used in accordance with the framework of the European Migration Network glossary and thesaurus [45]. Research evidence suggests that women from marginalised groups, have fewer opportunities to engage in entrepreneurship education to develop entrepreneurial skills. It is often the case that ethnic minority women, in particular those who have limited access to resources, find breakthrough opportunities in the labour market disadvantages [46]. Their strategy is to establish their businesses, in areas where a high percentage of minorities reside, and target the latter as their clients [47]. Although these women entrepreneurs are motivated and able to succeed, their businesses do not grow as much, since they rely on social capital from friends and family [48].

The CREATION project allows for more opportunities for these individuals to broaden their horizons and create better prospects for independent work, growth and

integration in their host communities. This addresses the aforementioned identified challenge with the limited growth potential of businesses run by women and the growth potential of women entrepreneurs themselves [49]. In addition, the project focuses specifically on cultural and arts entrepreneurship. Among the different definitions arising in the literature for cultural entrepreneurship, we adopt the view that cultural entrepreneurship is a body of theory and practices intended to create social and cultural change, through promoting the role of cultural heritage [25].

5.2. Phase 1

The project employs a design-based research (DBR) paradigm using both quantitative and qualitative means of data collection. Educational DBR offers high-quality solutions for complex educational practice problems across three related goals [50]:

- Optimization of interventions/products, such as frameworks and educative materials;
- Design principles contributing to knowledge through prototyping;
- Professional development of those involved.

The project will unfold under three successive phases over the span of four years: preliminary analysis, prototyping, and implementation and evaluation or assessment, with a shift in emphasis on the quality criteria in each phase.

5.3 Data analysis

An internal research database will be developed early to deal with the incoming data. The qualitative and quantitative data will be analysed separately and triangulated later through multimodal analysis, to answer the research questions. SPSS will facilitate quantitative analysis, whereas hybrid qualitative methods of thematic analysis will be employed, incorporating both the data-driven inductive approach [51], and the deductive a priori template of codes approach [52].

5.4 Target group

The research targets three groups:

- Female entrepreneurs coming from diverse backgrounds (migrants, asylum seekers, refugees);
- Adult educators in diverse community settings;
- Organisations and policy makers working in the field of cultural and creative entrepreneurship, and/or migrant integration.

Each partner organisation in CREATION project, will implement the ECAS framework through direct involvement of end-users. The aim is to cultivate an entrepreneurial culture among women entrepreneurs, with particular emphasis on disadvantaged and underrepresented groups, such as minorities, migrants, refugees, and asylum seekers to empower them as entrepreneurial learners and change-makers.

5.5 Action

This project will distinguish cultural entrepreneurship as an interdisciplinary teaching approach, thus separating it from traditional business scholarship on teaching entrepreneurship. As entrepreneurship education programmes, whether formal or informal, are flourishing, so is research indicating there are significant benefits from such learning [4]. It appears the individuals undertaking entrepreneurial learning, are more likely to start a business. What is interesting though, is how the content of these courses or programmes, do not distinguish between the gender of their participants. Both male and women, have the same type of mainstream entrepreneurial training. Nevertheless, it has been found that training content and methods need to be differentiated for women entrepreneurs [4].

Some research studies even find that women-only programmes are more efficient for women entrepreneurs, due to increased chances to find out about these programmes, while also they feel more confident to join when it is women-only [49]. Second, it has been proved that intake mechanisms for mainstream programmes possibly hinder gender-biases, as they do not consider the different characteristics and needs of women entrepreneurs. For instance, when it comes to women entrepreneurship, engagement in entrepreneurship networks is more important, since it allows access to several resources, including ideas, partners, and clients and funding, in addition to exchange of experiences and knowledge [4]. In addition, women entrepreneurs seem to be part of smaller and more informal networks than their male colleagues [4]. This often means less opportunities exist to meet individuals in key places [47].

Although entrepreneurship education has become a policy priority at EU level, with the establishment of the European Entrepreneurship Action Plan Framework in 2018. This well anticipated strategic document, comes following the Key Competences Framework for Lifelong Learning Europe 2020, the Small Business Act and most recently, the New Skills Agenda. With regards to cultural and arts entrepreneurship education, despite the emergence of an entrepreneurial spirit and mind-set in particular across the creative and cultural industries, there has been a mismatch between formal education and the challenges of the innovative society. The need is there to develop a Uniform European Framework of Reference for

Cultural and Arts Entrepreneurship Education and the CREATION project will fill this gap.

The CREATION project employs the ECAS framework to design women's entrepreneurship training with indicators organised along three main axes:

- Business demography indicators for female- and male-owned enterprises;
- Characteristics of women and men entrepreneurs; and
- Determinants of women's entrepreneurship, also based on secondary data sources on the business and policy environment.

The incorporation of the element of marginalised groups and gender equality, creates a whole new set of challenges and needs to be addressed in developing appropriate training curricula. Teaching cultural entrepreneurship provides the foreground to explore new teaching methods, working in close cooperation with the relevant industries, employing digital tools and infrastructure, and developing intercultural and interdisciplinary competences.

The project partners will promote the different activities/initiatives and intellectual outputs produced, within and outside of their affiliated network. Prior to implementation, and based on the methodological strategy, a needs analysis is conducted, to determine the needs of the target populations. The preliminary needs analysis consists of an online questionnaire and will be completed in February 2020. Results will inform the ECAS framework and feed into the transnational project meetings and planned learning/training activities and resources developed.

5. Conclusion and Outlook

The aspiration of the ECAS framework, is to go beyond the current state of art and provide a transdisciplinary paradigm for knowledge sharing, promoting substantial coordinated and balanced research, and innovation cooperation in relation to urban regeneration. The innovation potential exists in three pillars:

- a) The evidence based leveraging practices for integrated sustainable urban regeneration through predictive artificial intelligence systems, such as the ECAS Path. This will be continuously developed and updated, so it can lead to a new window of opportunities for market opportunities to promote a global market for heritage-led innovative solutions and services.
- b) A common framework for Cultural and Creative Entrepreneurial Competences and the Indicators on Entrepreneurial Learning and Competence (ECAS Knowledge Society) to set the foundations for a new generation of female entrepreneurs.
- c) The introduction of innovative urban regeneration governance models (such as the ECAS CYCLE). This paper introduced the ECAS framework, as an ecological model of social design. The implementation of the

framework is already taking place through the CREATION project, and will be pursued by an established Consortium of experienced partners from across Europe in 2020 and 2021. The findings from the first Cycle of implementation and valuable insights on the feasibility of the ECAS framework, will be discussed following the completion of the first year of the CREATION project.

Acknowledgements.

This research is part of the project Cultural and Arts Entrepreneurship in Adult Education (CREATION), “Application 2019-1-PT01-KA204-061315», Award for 24 months Erasmus + Key Action 2, Adult Education Sector (KA204) under the National Call 2019. The project targets underrepresented groups, and more specifically women who come from marginalised backgrounds (migrants, refugees and asylum seekers).

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