



MAPPING CREATIVITY IN THE EUROPEAN UNION

THE ROLE OF HUMAN DEVELOPMENT,
DIGITIZATION AND SUSTAINABILITY

Antonio Carlos Ruiz Soria

April 2020

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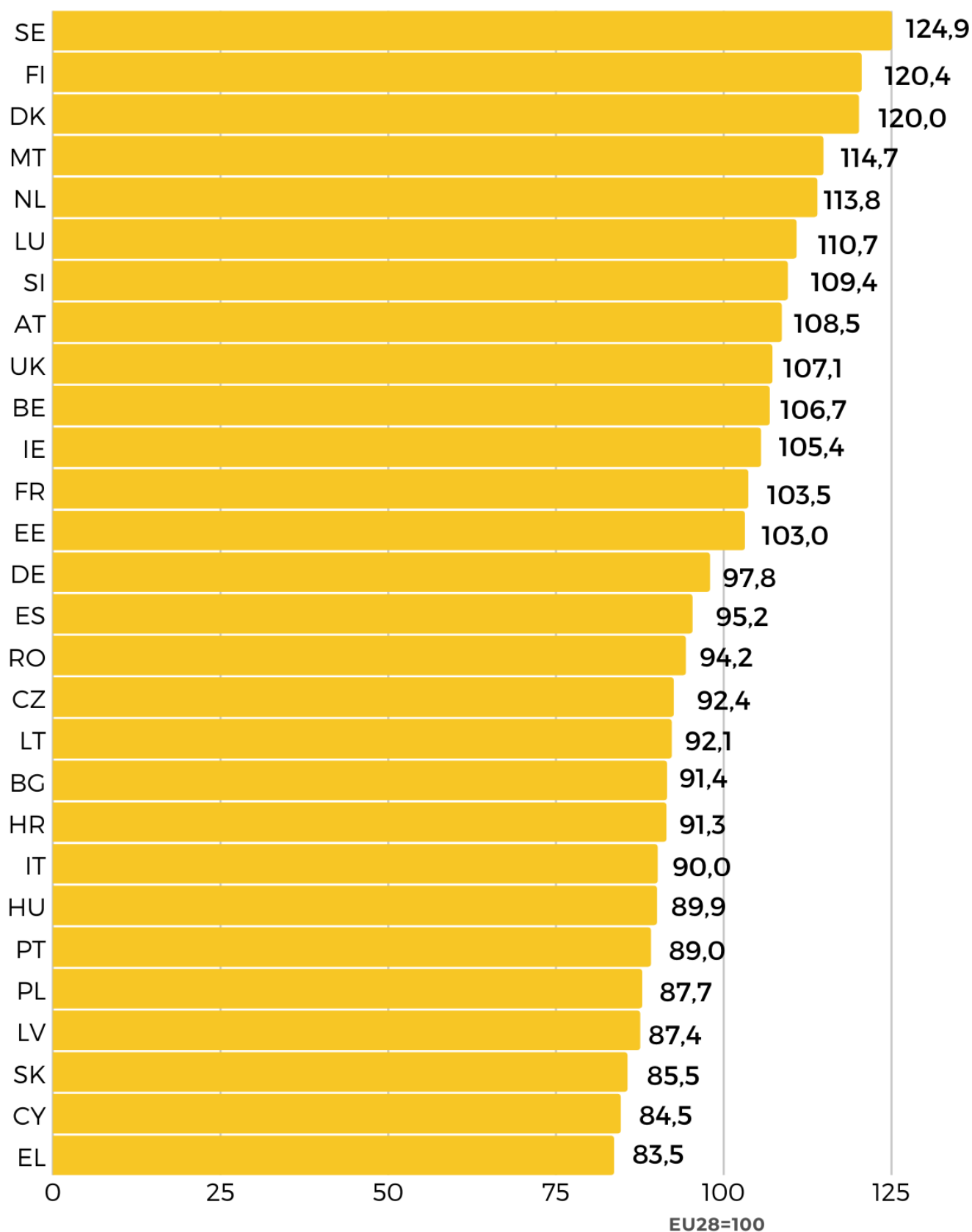


MAPPING CREATIVITY IN THE EUROPEAN UNION

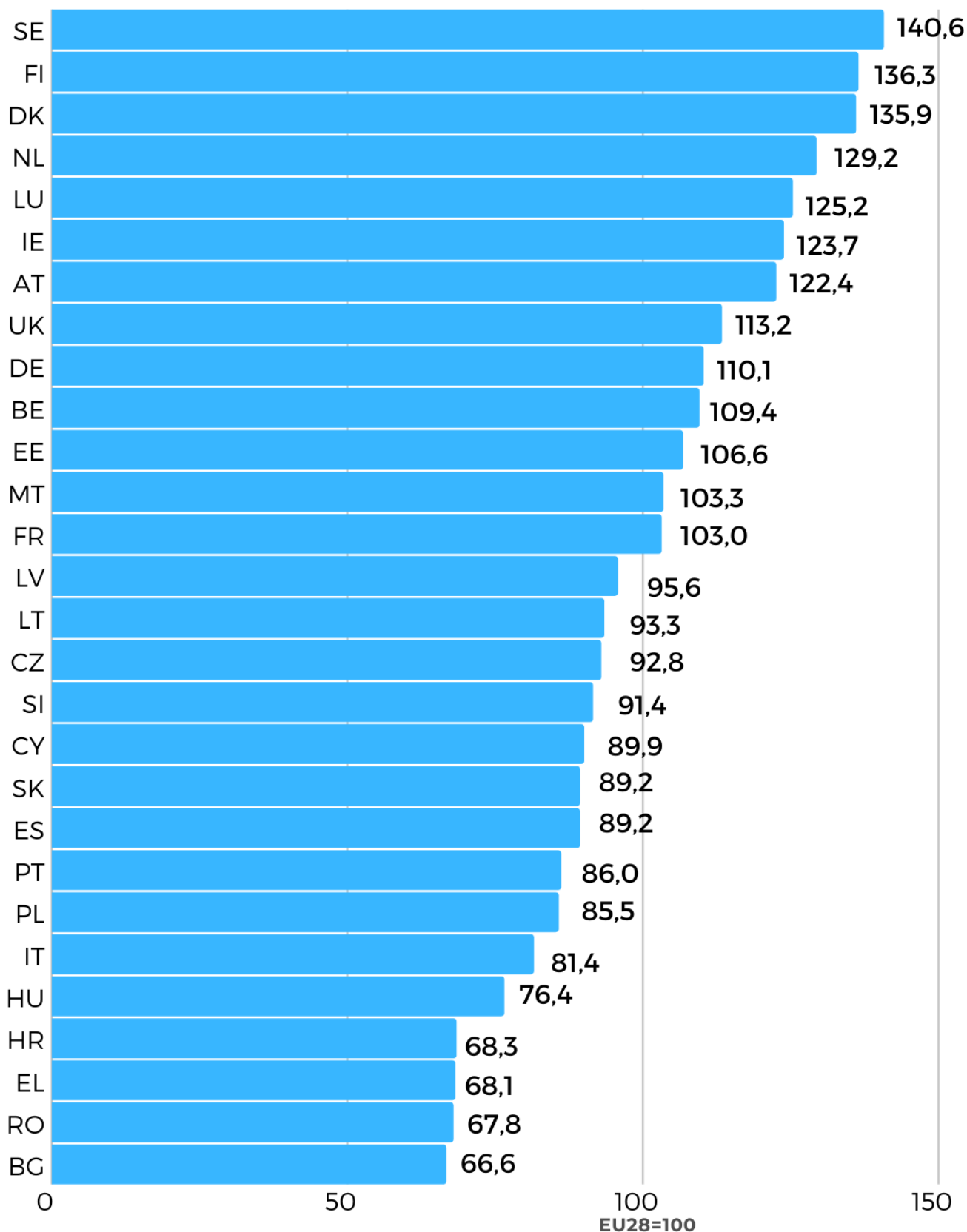
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KEY FINDINGS & EXECUTIVE SUMMARY

CREATIVE TALENT IN WORKPLACES



CREATIVE SOCIETY IN THE EU



Constructed Creative Talent in Workplaces (CTI) and Creative Society (CSI) indexes for EU28 (EU27+UK)
Analyzed CTI and CSI correlation with more than 25 socioeconomic and sustainability indicators



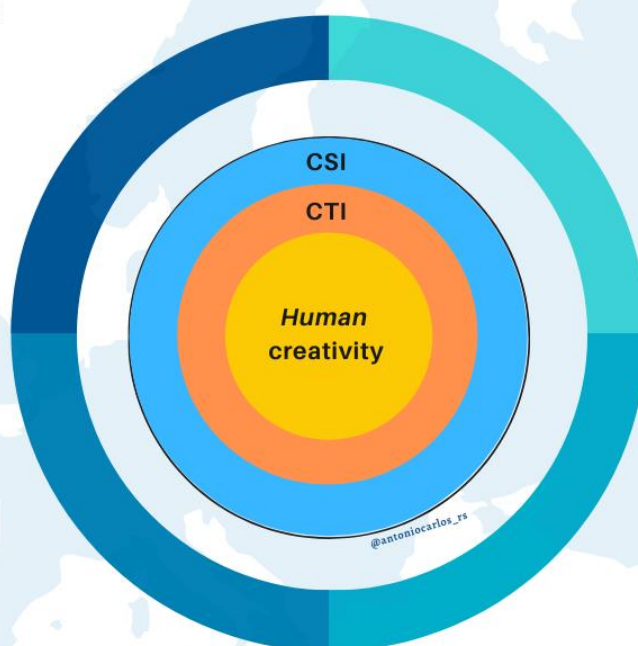
Economy & Business

- GDP PPS
- Labour market protection
- Productivity per worker per hour
- High skill to low skills
- High knowledge intensive work
- Business growth
- Organization Innovation
- Global Competitiveness Index
- Entrepreneurship Index
- Creative Goods Exports
- and Balance of Trade

Digitization



- Analysis of **Platform Economy** and **AI** relationship to **creative talent and skills**
- **Digital Economy and Society Index:** Connectivity (broadband and prices); Human capital (Internet user skills and advanced skills); Use of internet (Citizens' use of internet services and online transactions); Integration of digital technology: Business digitisation and e-commerce); Digital public services(e-Government and e-health)



Human Development

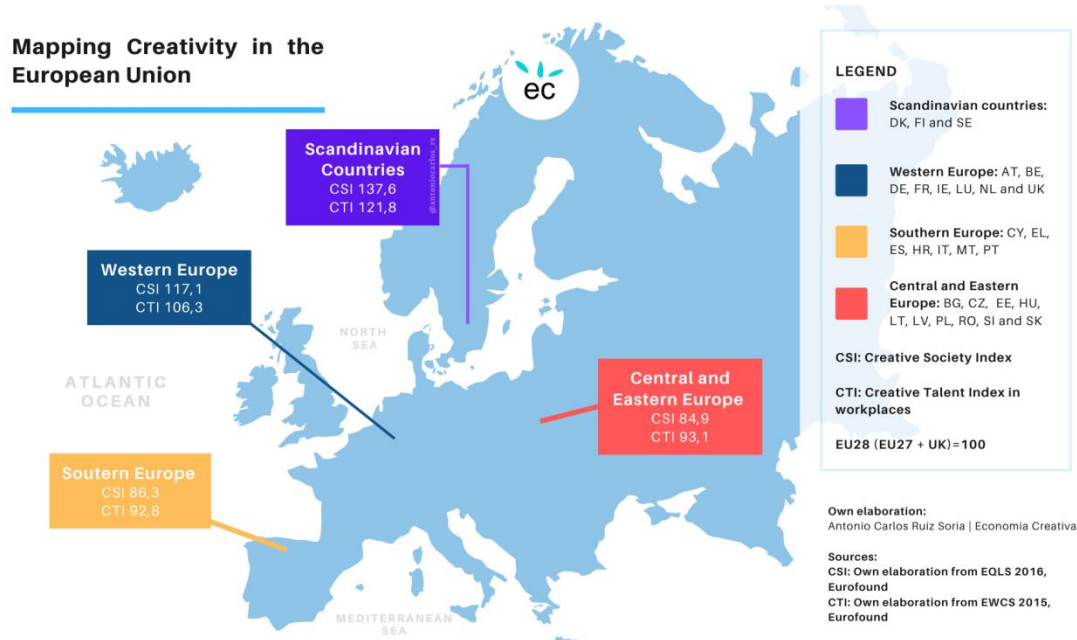
- **Human Development Index**
- **Education:** secondary, tertiary, lifelong learning, quality education, NEET
- **Equality:** GINI index, 40% bottom income, inability to face unexpected expenses, social mobility, gender
- **Territorial cohesion:** % urbanization
- **Happiness Index**



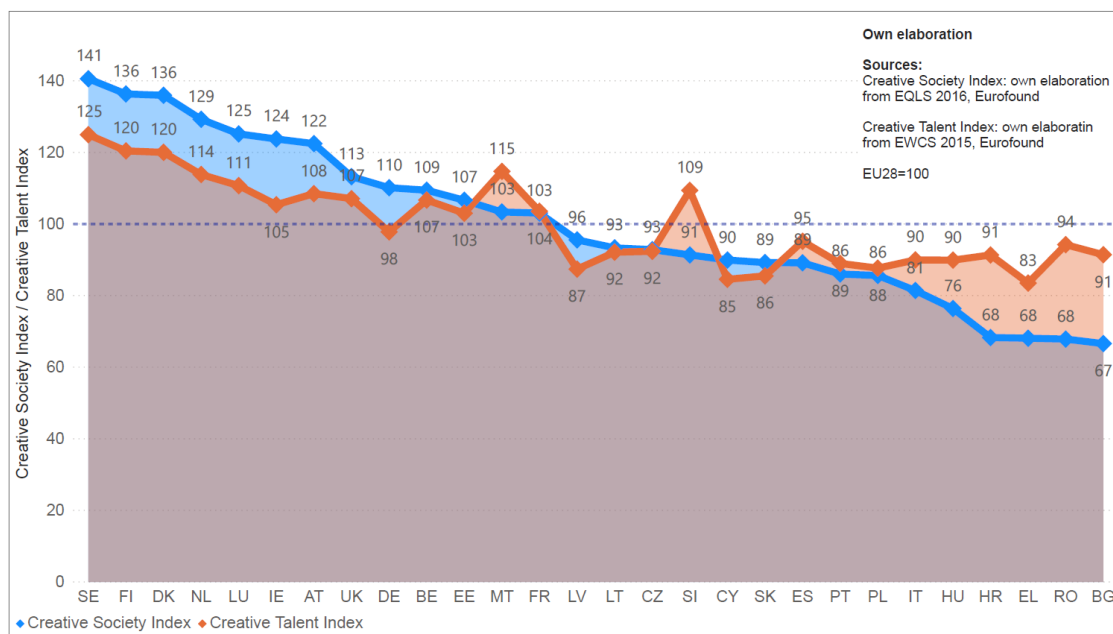
Sustainability and SDGs

- **Creativity** contribution to **SDGs**
- **Environmental Development Index:** environmental health and ecosystem vitality
- **Waste and recycling**

Four stages in the transition to Creative Societies

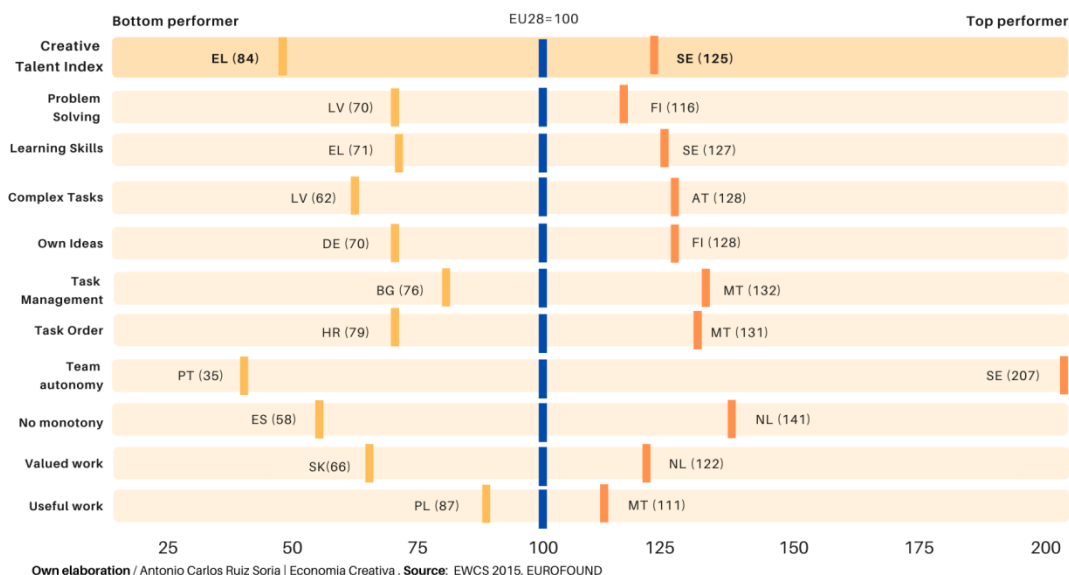


Creative Society and Creative Talent Indexes in EU28 (EU27+1)



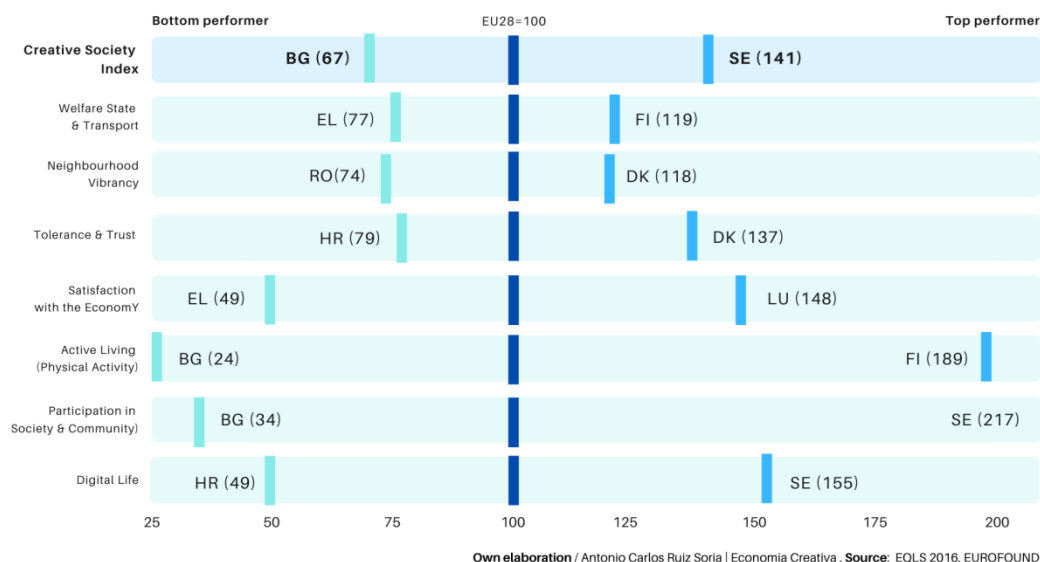
Creative Talent Index

Creative Talent Index Top & Bottom Performers by each Pillar



Creative Society Index

Creative Society Index (and index components) by Top - Bottom Performers



Executive Summary

Where and why talent emerge? Which are the circumstances that enable creativity to flourish at business and societal level? Why some territories are more creative than others? Is really creativity all around in Europe or is it missing?

This report aims to shed light into these questions, **mapping of creativity** in relation to three key forces that nurture, scale and sustain it: **human development, digitization and sustainability**. In order to do so, a **creative talent in workplaces** index has been constructed as well as a **creative society** index (the social environment enhancing creativity) for the **EU28 (that is, EU27 plus UK)**. These two indexes have been put in relation with more than 25 socioeconomic, demographic and sustainability indicators.

The creativity mapping performed has analysed national aggregate in relation to EU28 mean value; this imply that the CTI

and CSI we have constructed refer to relative and not absolute values. In consequence, not matter the more advanced level in a given country, all EU countries can further and constantly improve the environment to stimulate and scale creativity in all its envioning dimensions (personal and professional; for businesses and entrepreneurs; corporate; digital and offline; for communities, cities and societies; inside and outside the EU; and so on).

Human creativity is an unlimited resource that results from a co-created and a collective effort shaped by policy choices, business practices and peoples' active behaviours; it is not the aftermath of algorithms or the DNA characteristic of a particular territory or culture.

In this research we have identified **four stages in the transition toward creative societies in the EU that relates to different socioeconomic structures**

underpinned by policy choices.

Scandinavian and Western Europe

countries whose scores on both CTI and CSI are higher, are the best performers, characterized by higher levels of continuous learning and labour market protection; better of equality and social mobility levels; higher digitization (in business, public administration and citizens digital literacy and usage); and sustainability indicators – including being more advanced in the pursue of the SDGs. On the other side,

Southern Europe and Central and

Eastern Europe countries underperform in both CSI and CTI, on continuous learning and economic opportunity.

Therefore, **ultimately creativity is a society's choice**, it depends of what a society values and is committed to in order to empower its citizens and all actors to spark and develop their creative potential to thrive ideas, people's fulfilment, business competitiveness and the community

advancement towards a more sustainable and human way of living in harmony with the planet.

Creativity and Human Development.

Creativity does not appear in a vacuum;

without compromising individual freedom and talent, the research has proved the importance of the **social milieu** and the collective nature of creativity. As the national aggregate values from the different indicators related to human development have confirmed, **creativity is significantly correlated to continuous and quality learning, healthy life and wellbeing, and a decent standard of living, equality and social mobility**. Hence, inequality is not only unfair but also inefficient for the economy, impeding entrepreneurship and business competitiveness. Improving social mobility and equality can boost creativity and empower entrepreneurship, contributing to economic development and social inclusion. **Given the fact that 1 in 3 EU**

citizens is unable to face unexpected financial expenses, together with the current uncertainty in the labour markets due to automation and the platform economy, **universal basic income (UBI)** is a necessary instrument to guarantee decent standard of living and equal opportunity for all, levelling the playfield for creativity to flourish.

Empowering people is central to developing creative societies. The skills gap that is challenging many business' innovation cannot be solved if inequality is not tackled with policy commitment and business practices (fair remunerations, hiring on merit) aiming to secure **talent-realization**. It is the time for the EU to play a leading role as **creative power**, engaging with the rest of the world through stances of mutual learning and sharing, promoting and enabling equal opportunity and fertile grounds for creativity to flourish both internally in the EU and in third countries,

guaranteeing transparent and **fair working conditions** and **fair trade** throughout the whole creative value chain, in correspondence with EU's values and the **SDGs**.

Creativity and Digitization.

Digitization is embedded in our lives and work. Provided a reconfigured version of the platform economy (as presented in Part I of this study), digitization favours new ways of living and working (remote work) that can help workers to conciliate their personal and professional lives with higher levels of flexibility (although, as it has been remarked earlier, taking in consideration also the risks of 'always on' career paths). **Creative talent is correlated with higher level of digitization** (advanced digital skills and digital intelligence). Big data, automation and digitization contribute also to **the exponential scalability** of creativity, generating **network effects** and enormous **value** (that needs to be fairer distributed).

Augmented intelligence and virtual reality open new windows to human perception and cognition, creativity and experimentation for generating new solutions, products and services, processes and policies to tackle SDGs and enhance social inclusion.

Firms in the Fourth Industrial Revolution require constantly new talent and creative ideas and have the need to tap into the skills of experts in a fluid way that allows the former to engage the latter for specific and concrete challenges and for a limited timeframe. Therefore, it is increasing the need and demand for new forms of work beyond full-time and permanent jobs. Though, this has left many workers and entrepreneurs without the benefits traditionally attributed to fulltime work (social security, unemployment benefits, in-house training, among others). They have now the very responsibility to undertake their constant self-branding and promotion, manage their entrepreneurial ventures,

search for new projects, network and actually deliver the projects in which they work on. However how time and effort consuming these tasks are, many of them are unpaid. This makes necessary the implementation of: UBI (as mentioned above); co-operation between public and private sector to provide continuous training opportunities; and smart taxation and smart contracts to facilitate and stimulate the transactions between corporations, SMEs, public administrations and entrepreneurs and freelancers.

Creativity and Sustainability.

The third force underpinning creative societies is sustainability. As we have described earlier, creativity and sustainability are interrelated and reinforced each other. Creativity has to be in harmony with the natural ecosystem, harnessing environmental health and ecosystem vitality. Citizens, businesses, public sector and civil organizations have to play an active role

towards reducing their carbon footprint, reusing and recycling; and finding new ways of putting in value the nature through **sustainable living** and **creative sustainability**.

The Fourth Industrial Revolution demands and shape more than a skills shift. Resilient, innovative and advanced societies, business, organizations and individuals share a common denominator: **creativity**; or the ability to adapt and actively create new ways to cope and get ahead in a world in constant change, with increasing

challenges, dynamism and uncertainty. This unfolds a **new paradigm** of society and economy, underpinning an evolutionary shift toward **creative societies**.

This study has conceptualized this evolutionary shift as an economic and societal model centered on **human creativity** and **underpinned by three forces: human development, digitization and sustainability to reconfigure life, work and citizenship in harmony with the planet and the environment**.



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*To Justyna,
for an ever enriching
journey together.*

About the Author



Antonio Carlos Ruiz Soria is a leading international expert and speaker on creative & digital economy and sustainability; founder of **Economía Creativa**, creativity and innovation lab. He is a creative thinker and ecosystem maker providing strategic advice and actionable solutions for value-generating growth across industries and geographies for both public and private sector (European Commission, corporations, startups, SMEs, NGOs) to succeed in the Digital Age.

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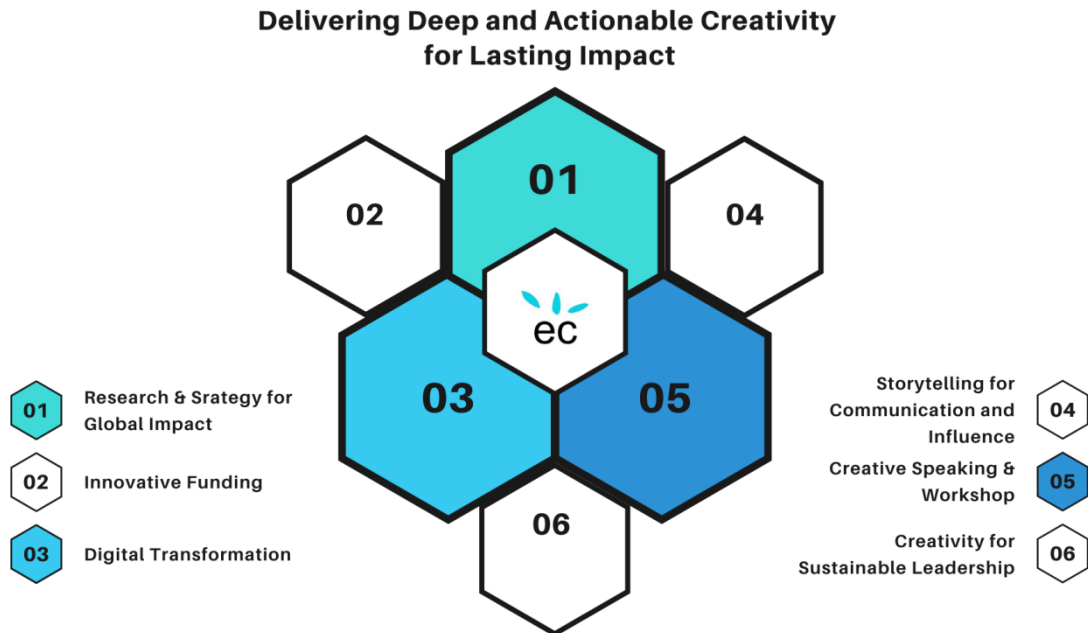
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Foreword. Creativity in the Post-Covid19 World

This study has been conceived and conducted prior to the outbreak of coronavirus. It is not, therefore, the result purely of *confinement creativity*. However, the final work (writing, editing, etc.) has been carried out during the lockdown. Given the unprecedented consequences of the coronavirus outbreak in terms of health, economic impact across sectors and industries, disruption in the way of living globally, etc., it is necessary to briefly evaluate how covid19 might affect the main conclusions presented in this report.

The impact of coronavirus in the economy and complete disruption of our lives with confinements and the need to construct *new ways of living* have, in fact, reinforced that creativity is crucial for reconfiguring life, work and citizenship. It has also strengthened the need for a new economic and social system¹, tackling inequality and providing the necessary social security so everyone can meet unexpected financial expenses (for example due to the pandemic), to have the flexibility to change career path, choose to be self-employee without living in precarious conditions, re-train and re-learn new skills to be able to play a meaningful role in society.

Creativity has helped people to cope during the confinement (resilience), reinventing their lifestyles, ways of working (remotely from home/applying measures to minimize risks of contagion in retail, hospitality and other industry

¹ See blog article [Coronavirus reveals the need for a new economic and social system](#)

sectors); and businesses: fostering agility and adaptability to reinventing business models, particularly focused on digitization.

Covid19 has accelerated the need for a paradigm shift toward *creative societies* in which creativity enables a positive disintegration for personal and professional fulfilment, business competitiveness and inclusive and activated societies in harmony with the planet.

Antonio Carlos Ruiz Soria, San Pedro Alcántara, 21 April 2020

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RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom

List of Countries

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czechia
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
PL	Poland
PT	Portugal

Acronyms

AI	Artificial Intellingence
CAGR	Compound annual growth rate
CSI	Creative Society Index
CTI	Creative Talent Index
DQ	Digital Intelligence
EU28	European Union Member States (including UK)
EPI	Environmental Performance Index
EU28	European Union Member States (including UK)
EU27	European Union Member States excluding UK (unless stated differently)
GDP PPS	Gross Domestic Product per capita in Purchasing Power Standards
HDI	Human Development Index
ICT	Information, Communication and Technology
MNC	Multinational corporations
SDGs	Sustainable Development Goals

STEAM Science, Technology, Engineering,

Arts and Culture and Maths

STEM Science, Technology, Engineering

and Maths

UBI Universal Basic Income

UNCTAD United Nations Conference on

Trade and Development

UNDP United Nations Development

Programme

Note. Why has UK been considered as part of EU28 in this report?

UK has been considered as part of the EU28 in this analysis despite that the UK is not anymore member of the EU (officially since 31 Januray 2020) for several reasons.

Firstly, the data sources for both Creative Talent Index and Creative Society Index are from 2015 and 2016 respectively, when UK was still member of the EU (in the one case data source is prior to the Brexit referendum; and in the other the referendum result was not finally enforced).

Secondly, during the period analysed the UK has taken part of EU funded projects and being part of the E's economic and social life as any of the EU members.

Nevertheless, in the case of the EU's creativity competitiveness in the world (Part IV of this report), the UK has not been considered as part of the EU since the UK is by itself one of the global powers in creative economy and has established a well-known leadership on this field. So it seemed appropriate to analyze EU's competitiveness excluding the UK, despite the data referrers also to a timeframe in which the UK was still member of the EU- to have a clearer perspective of the actual position of EU's creativity (the actual EU) in the global scene.

Introduction. Why mapping creativity?

There is good reason to inquire about creativity ... A reason beyond practicality ... The reason is the ancient search of the humanist for excellence ... the next creative act may bring [us] to a new dignity.

J. Bruner

As to the first kind of order, it oscillates no doubt around finality; and yet we cannot define it as finality, for it is sometimes above, sometimes below. In its highest forms, it is more than finality, for of a free action or a work of art we may say that they show a perfect order, and yet they can only be expressed in terms of ideas approximately, and after the event. Life in its entirety, regarded as a creative evolution, is something analogous; it transcends finality, if we understand by finality the realization of an idea conceived or conceivable in advance.

Creative Evolution. Henri Bergson

Give me a place to stand, and I shall move the world.

Archimedes

We are not creatures of circumstance; we are creators of circumstance.

Benjamin Disraeli

Creativity is all around yet it seems to be missing. Countries, cities, regions and neighbourhoods in Europe and elsewhere are claiming they are *creative* to attract tourists to experience and be inspired and the *creative class* to settle and shape innovative ecosystems. More than 245 cities have identified creativity as strategic factor for sustainable urban development are part of the [UNESCO's Creative Cities Network \(UCCN\) created in 2004](#). Businesses across industries, sectors and geographies also claim that creativity is part of their DNA, part of their everyday life. Creativity is also a frequent prerogative in publicity, associated to the power to transform, to success and to the *future*. However, at the same time creativity seems to be missing. In some cases, the fact that cities or territories over-emphasize the aim to *attract* talent, might indirectly imply that policy makers acknowledge that do not have *enough talent locally*; or, simply, they believe that it is more efficient importing ideas than cultivating talent from grass-root level. Local cultural development centred on well-established yet foreign museums' branches can be an example of such approach². On the businesses side, creative talent seems to be in short supply while high skilled workers are in many cases facing precarious working conditions in the platform economy. In the Fourth Industrial Revolution, the pace of change is truly unprecedented and indeed can lead to shortages of the *right talent* for businesses. Still, it looks like a paradox that in the time in which populations globally, and particularly in Europe, have the

² For example the case of Málaga, with branches of the [Centre Pompidou](#) and the [State Russian Museum of Saint Petersburg](#).

highest education attainment in history, creative talent is simultaneously in *shortage and unemployed*.

What is really happening? Where and why talent emerge? Which are the circumstances that enable creativity to flourish at business and societal level? Why some territories are more creative than others? Is really creativity all around in Europe or is it missing? These are some of the questions that the present report aims to shed light into.

The first part of the report analyses creativity in workplaces. The creative talent index in workplaces has been constructed for the EU28 (EU27+UK) based on ten pillars that favour creativity in intra-organizations (following the literature) such as applying own ideas, problem solving, task management and learning new skills, among others. Then the creative talent index has been put in relation to socioeconomic variables and business performance indicators (business growth, productivity, innovation).

It has been examined the paradox of skills gap in the Digital Age surfacing the unbalanced configuration of risks and rewards and value capture in the platform economy; the increasing inequality, precariousness and (global) super-competition as eroding factors for optimal supply of creativity; and the importance of the social milieu, social cohesion and economic opportunity for talent to flourish.

In Part II, it has been constructed the creative society index for EU28 erected upon seven pillars that support a context for creativity (satisfaction with the economy, welfare estate and transport, participation in society and community,

digital life, active living, among others). The creative society index has then been put in relation with more than 25 socioeconomic and demographic indicators to explore the role of human development, digitization and sustainability in connection to creativity.

The analysis has surfaced four geographical clusters in the EU's that are at different stages in the transition toward creative societies: Scandinavian countries, Western Europe, Southern Europe and Central and Eastern Europe.

Part III has the objective to succinctly put in context EU's creativity in the world, relying on the creative goods international trade figures by UNCTAD; and to signpost the strategic asset that EU's creativity constitutes as a competitive edge and diplomatic soft power which can be leveraged into a driver for sustainable development.

Finally, Part IV conceptualizes an economic and societal model centred on human creativity and underpinned by three forces: human development, digitization and sustainability to reconfigure life, work and citizenship in harmony with the planet and the environment; followed by conclusions and recommendations to policy makers and business leaders.

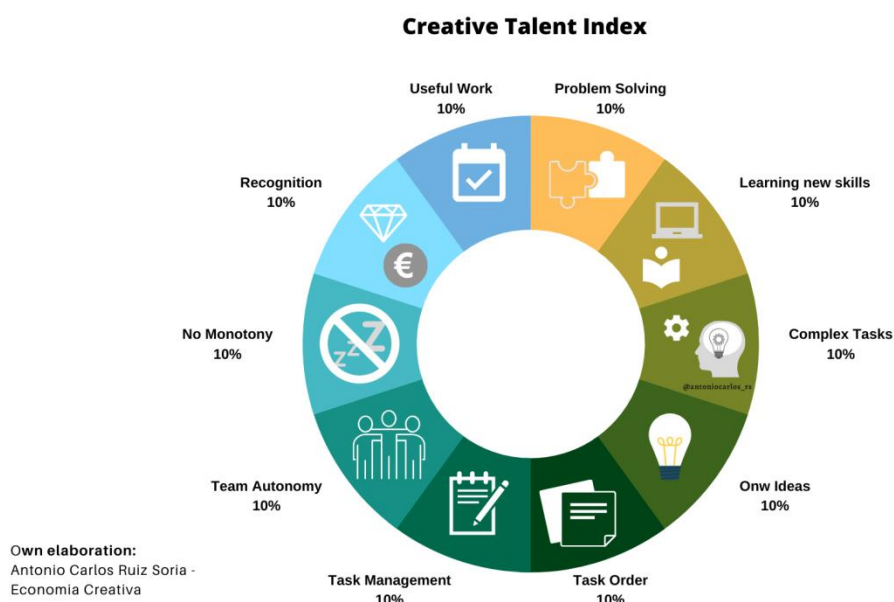


PART I MAPPING CREATIVE TALENT IN EU'S WORKPLACES

1.1. Mapping creativity in EU's workplaces

a) The Creative Talent in workplaces Index.

For the comparative analysis of the EU28³ we draw on the Eurofound Working Conditions Survey 2015⁴, hereafter EWCS, which paints a wide-ranging picture of Europe at work across countries. This sixth survey, carried out in 2015, interviewed nearly 44,000 workers in 35 countries. Its findings provide detailed



information on a broad range of issues: work organisation, work–life balance, health and well-being.

To construct the **Creative Talent Index (CTI)**⁵ we use national aggregates data from ten variables that capture key features of creative work activity, corresponding to 10 questions from the 6th EWCS (as presented in the infographic above):

³ EU28 makes reference to EU27 plus UK.

⁴ (Eurofound 2015)

⁵ See Appendix for more detailed information about how we have built the Creative Talent Index.

- **Own ideas.** Creativity has been associated with the ability to generate original ideas⁶.
- **Complex tasks.** This pillar captures the ability to apply creative thinking in highly demanding cognitive tasks in workplaces.
- **Problem solving.** Creativity is closely linked to the ability of problem finding, identification and solving.
- **Task Order.** Workplaces' culture focused on boosting creativity leaves more room and autonomy to their team members to decide the order in which they perform their tasks.
- **Task management.** This pillar captures workers' autonomy to self-manage their work.
- **Learning new skills.** Creative people are in constant need to learn new skills and acquire knowledge. On the other hand, creative workplaces provide opportunities for career development and learning to their staff.
- **Team autonomy**⁷. Research suggests that there is a positive relationship between team autonomy and creativity, and therefore firms' innovation performance.
- **No monotony.** Creative workers are less keen to be engaged in monotonous tasks; at the same time, monotonous tasks are more likely to be automated.
- **Work recognition**⁸. Organizations' culture in which creativity is valued and encouraged foster creative talent to develop it further.

⁶ (Lorenz and Lundvall 2010)

⁷ (Mierlo, et al. 2006)

- **Useful work.** This pillar refers to the importance of the usefulness of the work both for the worker himself/herself (intrinsic motivation) and for the business and users (efficiency / profitable), society, (prosocial motivation).

As it is shown in the infographic above, we have given equal weight to each pillar (10%) to construct the index (however the model can easily be replicated with different pillars' weight). To build the index we consider EU28 as base, that is, EU28 average=100. **Table 1** presents the values of each of the ten pillars indexed to EU28=100.

Table 1. Creative Talent Index by Pillars

Country Code	Own ideas	Complex tasks	Problem solving	Task order	Task management	Learning new skills	Team autonomy	No monotony	Work recognition	Useful work	Creative Talent Index
SE	116	107	116	114	122	127	207	138	105	97	125
FI	128	120	101	124	110	125	174	96	121	103	120
DK	121	123	112	125	122	124	153	93	118	108	120
MT	124	82	110	131	132	117	103	138	98	111	115
NL	121	93	111	114	107	111	111	141	122	107	114
LU	121	118	111	109	113	118	113	98	101	105	111
SI	119	106	104	98	99	117	162	101	83	106	109
AT	98	128	106	108	98	102	106	122	113	104	108
UK	109	109	101	107	102	114	151	79	106	93	107
BE	116	93	105	110	110	107	95	115	113	103	107
IE	119	96	97	102	101	111	127	90	110	101	105
FR	110	102	106	111	104	117	75	98	108	103	104
EE	89	107	109	109	116	114	107	78	99	101	103
DE	70	110	99	89	112	92	63	138	103	102	98
ES	107	86	107	98	94	99	103	57	102	98	95
RO	88	96	92	90	79	89	100	100	114	95	94
CZ	95	109	95	93	80	93	76	80	104	98	92
LT	72	107	97	88	97	81	123	76	86	95	92
BG	88	122	80	85	76	93	89	71	104	107	91
HR	89	112	106	79	88	99	112	58	74	96	91
IT	93	77	93	104	108	82	57	103	87	97	90
HU	96	115	91	83	85	75	48	118	87	99	90
PT	102	77	100	88	93	82	35	112	98	103	89
PL	74	94	99	95	96	88	68	88	88	87	88
LV	93	62	70	89	91	77	88	115	93	97	87
SK	75	106	97	83	90	91	70	90	66	89	86
CY	79	62	95	89	86	82	38	114	100	99	85
EL	91	80	89	84	88	71	47	91	98	96	83

Own elaboration. Source: EWCS 2015, EUROFOUND

Figure 1 shows the **Creative Talent Index in workplaces Map**; from darker to light orange colour corresponds higher to lower value of creativity at work, respectively. The map visualizes the **geographical difference** in the distribution of creative talent and skills in workplaces in the EU28, with higher than average index in **Scandinavian and Western Europe**; and lower in the **Central and Eastern and Southern Countries**.

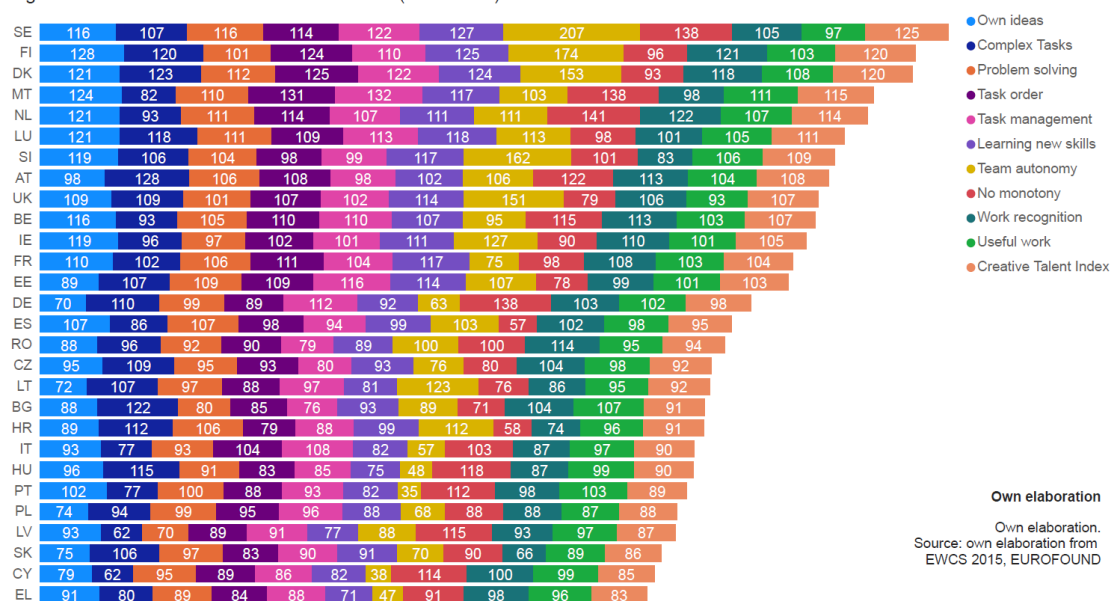
⁸⁸ (T. M. Amabile, R. Conti and H. Coon, et al. 1996)

Figure 2 showcases the national **Creative Talent Index (CTI)** and its ten pillars. The countries leading on creative talent, Sweden, Finland, Denmark, Malta and Netherland, are particularly over performing on **team autonomy**, **learning new skills** and **no monotonous tasks**; while the countries with lowest CTI, Cyprus, Greece, Latvia, Poland and Slovakia are underperforming more strongly on **team autonomy**, **applying own ideas and learning new skills**.

Figure 1. Creative Talent Workplace Index EU Map



Figure 2. Creative Talent Index and CTI Pillars (EU28=100)



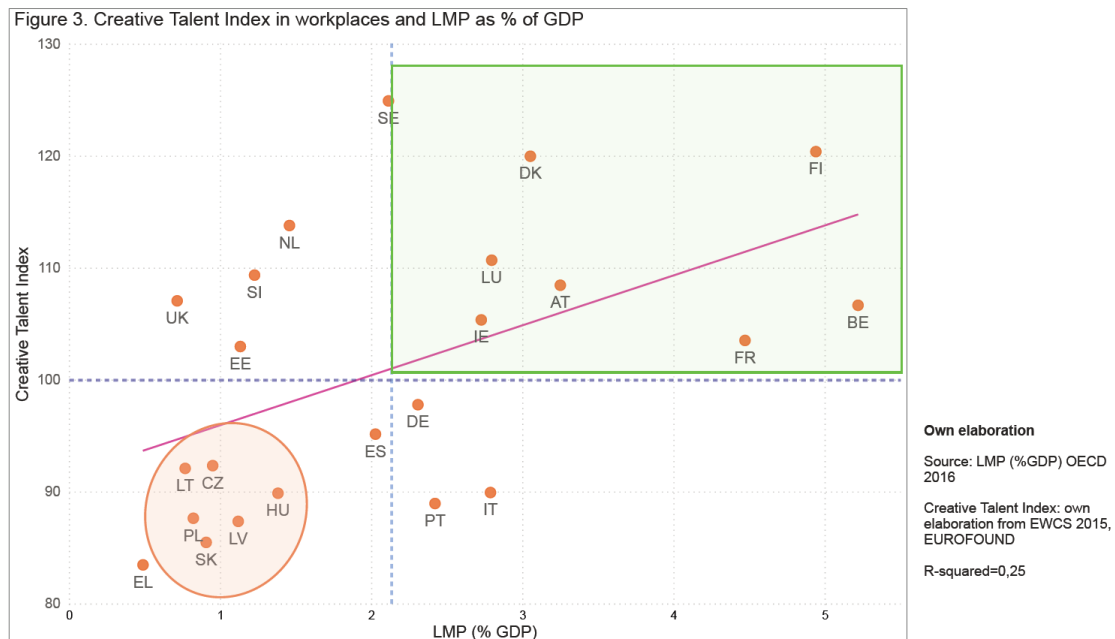
b) Creative Talent in workplaces and labour market protection

Research⁹ supports that **fluid labour markets** impact positively on innovation at firm level, facilitating reconfiguration of a firm's knowledge base and skillset, and the mobility of talented professionals. Individual experts' mobility implies that firms might lose know-how and the tacit knowledge of individual experts. In *Beyond boundaries: Open labour markets and learning in the Silicon Valley*¹⁰ it has been argued that these problems of accumulating and transferring know-how take a different form when **firms** are organised into **networks and industry clusters**, favouring **mobility across organisational borders** and **boundaryless careers for the creative workers**. These clusters, as Lorenz and Lundvall (2010) pointed out, are more likely to arise in institutional settings where **high levels of labour market flexibility** are complemented by **well-developed systems of unemployment protection** and **active labour market policies** designed to increase the employability of the unemployed. Indeed unemployment protection can encourage individuals to commit themselves to what would otherwise be considered unacceptably risky career paths¹¹.

⁹ (Lam 2007)

¹⁰ (Saxenian 1996)

¹¹ (Lorenz and Lundvall 2010)



In this context, we have constructed the indicator **Labour Market Protection (LMP)**¹² including total expenditures on active and passive labour market policies as a percentage of GDP to analyse its relationship with creativity at workplaces. **Figure 3** above presents aggregate correlations at the national level showing the relationship between the frequency of creative talent in workplace activity and the measures of labour market protection. The results support the view that a **well-developed system of unemployment protection combined with active labour market policies favours creativity in workplaces**. **Finland, Belgium and France** stand out in regards to the labour market protection; on the other hand, **Central and Eastern European countries** (Poland, Czech Republic, Latvia, Hungary, Slovakia and Lithuania) stands out, together with, Greece, for the low spending on labour market policies, which might have an influence on their lower CTI.

¹² Following (Lorenz and Lundvall 2010)

According to the **Global Social Mobility Report 2020**¹³ ‘across developed economies, today fewer than one-in-three unemployed, and fewer than one-in-four job-seekers have access to unemployment benefits through relevant support in job transitions and reskilling. Across economies, the level of social protection is limited in terms of coverage and scope. Many of the most vulnerable workers—those who are **self-employed** or out of formal labour markets—are currently excluded from social protections’. ‘The policy support has traditionally focused -overwhelmingly on legislating to protect and promote full-time permanent jobs. In high-income economies – such as in the EU- this focus persists even as non-standard work (such as freelancers) increases without recourse to similar benefits and protections. **Today, particularly in the face of ever faster pace of automation, however, there needs to be a change of policy mindset that focuses on protecting people rather than jobs**’¹⁴.

c) Creative talent, education, skills and productivity.

► Creativity, tertiary education and STEM

According to Lorenz and Lundvall (2010) ‘level of creative work activity tends to be higher in nations **with broad competence based systems of education and training** that place value on **equality of access to life-long learning opportunities**’. **Figure 4** presents a positive correlation between **creative talent in workplace and tertiary educational level attainment**. However, as it

¹³ (WEF 2020d)

¹⁴ (WEF 2020d)

is shown on **Figure 5**, creativity does not seem to be related to the percentage of STEM graduates at national aggregate level. As the PWC 22th CEO's survey¹⁵ highlighted 'improved STEM (science, technology, engineering, math) skills will be important in allowing people to perform the new roles and tasks that will arise out of AI and robotics, **but soft skills like creativity and empathy will also be important in making people adaptable and employable throughout their working lives. Creative solutions** will address the bottom of the educational pyramid — repurposing trade and technical schools to equip young people for success.'

► Creative Talent and continuous learning

Creativity has been defined as the ability to come up with new and valuable ideas, product and services. In a **world of constant changes**, businesses and organizations need to come up with innovative solutions to ever more **complex challenges. This requires that teams learn constantly new skills.** In this context we explore the relationship of creative talent at workplaces with **continuous learning**. As indicator of **continuous learning** we rely on the lifelong learning measured by Eurostat. **Figure 6** clearly states –with a highly significant statistical correlation- the **positive relationship between lifelong learning and creative talent in workplaces**. We see again a **geographical divide** between Scandinavian and Western European countries outperforming EU28 average in both creative work and continuous learning; and South and Central and Eastern European countries with lower ratios.

¹⁵ (PWC 2019)

Figure 4. Creative Talent in workplaces and tertiary education attainment

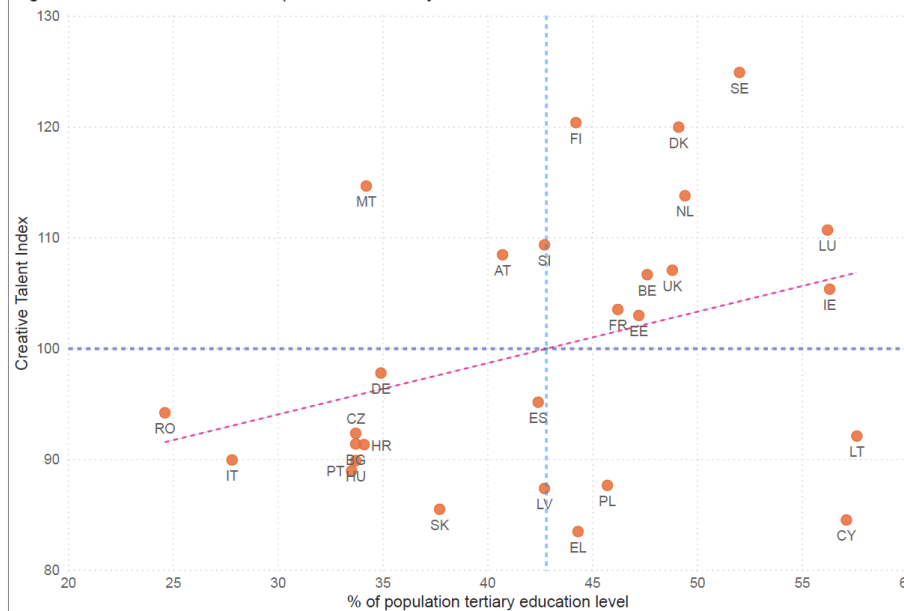
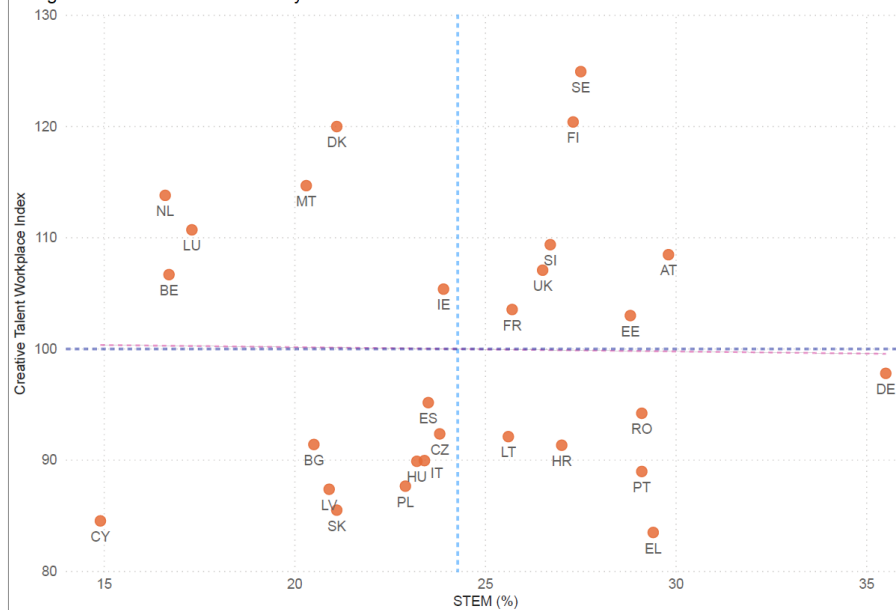
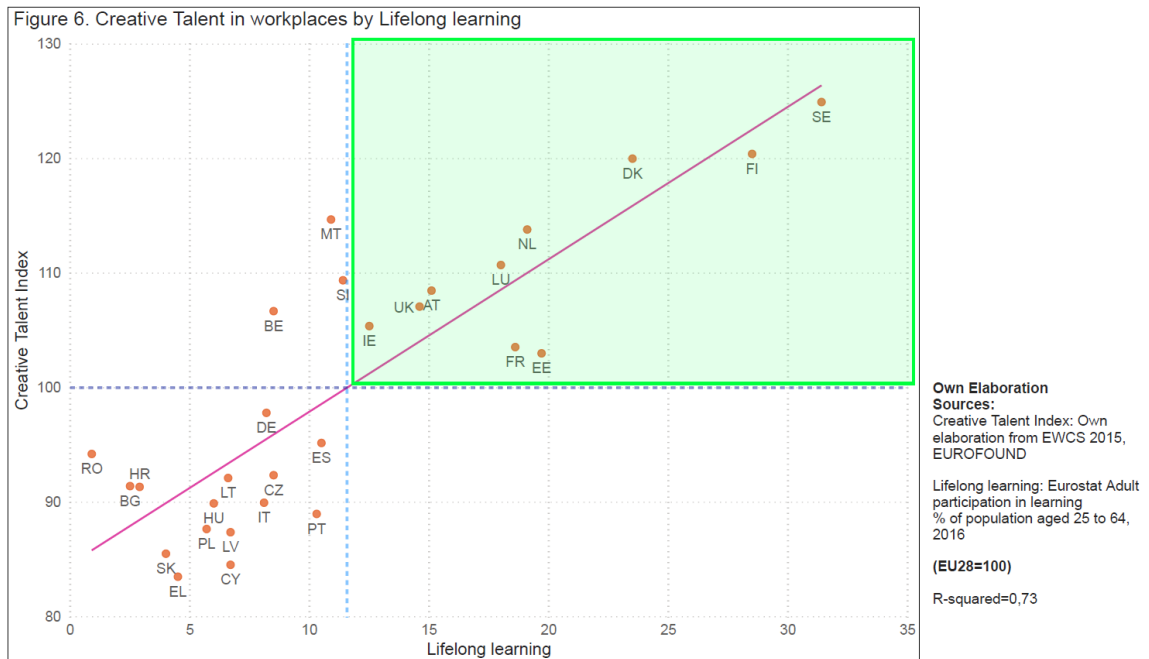
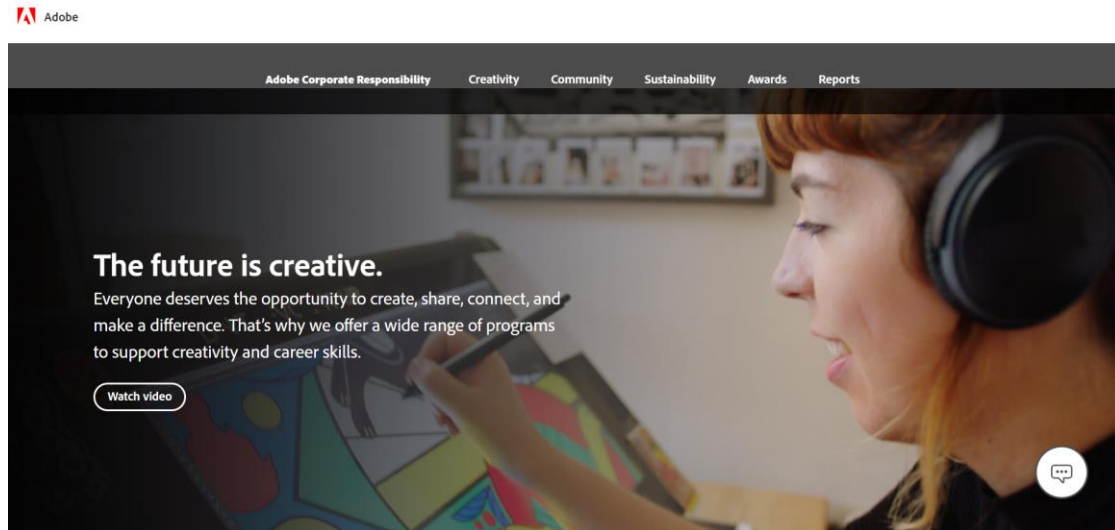


Figure 5. Creative Talent Index by STEM education





Box 1. Adobe: The future is Creative



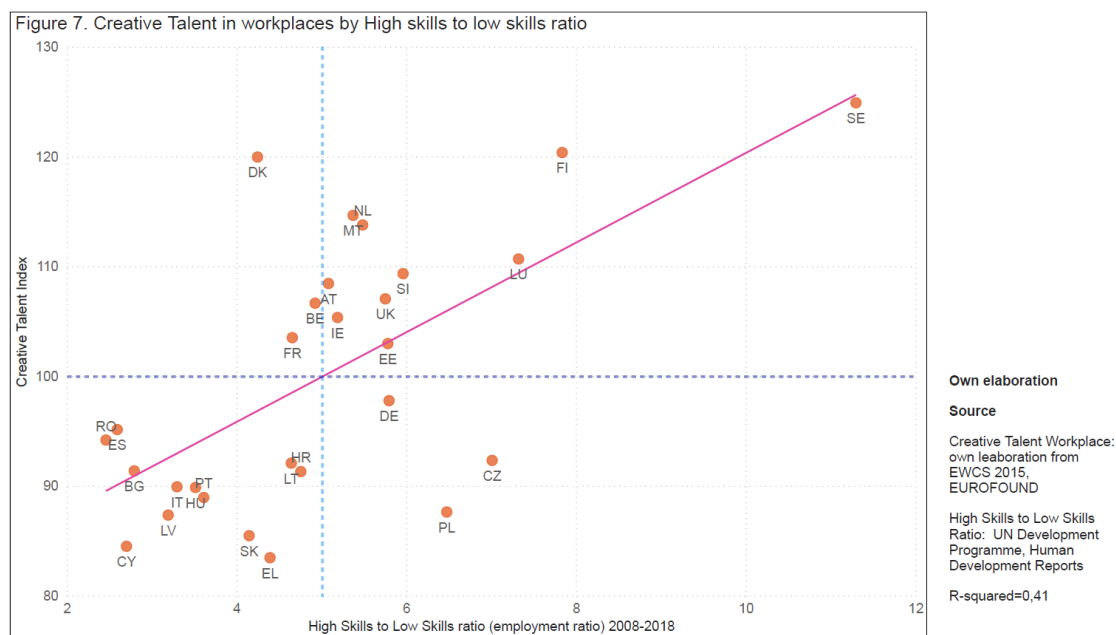
'The [Adobe Creativity Scholarships program](#) recognizes the next generation of creatives and propels the future careers of those who create. The scholarships provide college and post-secondary education tuition to young people who are pursuing study in a creative field, and using creativity as a force for positive social change. Creativity Scholars practice self-expression as an opportunity to open minds, to innovate, and to inform the world around them'.

Adobe has implemented a youth creativity network partnering with other stakeholders to create change. They work with dynamic companies and organizations to help young people realize their creative visions and launch their dream careers.

We work with dynamic companies and organizations to help young people realize their creative visions and launch their dream careers.

One of these examples is the project Reimagining Shakespeare to Boost Classroom Creativity in which Adobe has partnered with the education arm of the Royal Shakespeare Company to help teachers infuse creativity and creative problem-solving into their classrooms 'to help students thrive in tomorrow's workforce.' Adobe and the RSC have worked with five UK artists and photographers to give iconic Shakespeare scenes from Romeo and Juliet, Macbeth and A Midsummer Night's Dream a modern-day makeover. Photography, illustration and comic book artistry have been used to make the playwright's work more relatable to today's Instagram Generation and offer teachers a new creative approach to enhance their teaching of Shakespeare'.

► Is creative talent related to high skills?



Creativity has been identified by *LinkedIn Global Talent Trends 2019*¹⁶ as the **number one soft skill companies need most in 2020**. We aim to find out how the creative talent index in workplaces relates to the actual workers' skills. To do so, we rely on the **High Skills to Low Skills ratio**¹⁷ (employment ratio) from the **UN Human Development Reports**¹⁸. **Figure 7** presents aggregate correlations at the national level showing the relationship between the frequency of creative talent in workplaces and high skills to low skills ratio.

Figure 7 shows a **statistically significant correlation between highly skilled workforce and creativity**, particularly relevant in the cases of Sweden and Finland. **This supports the view creativity features such as applying own ideas, flexibility, autonomy and self-management are key features for**

¹⁶ (LinkedIn 2019)

¹⁷ High-skill to low-skill ratio: The ratio of total employment in high-skill occupations (skill levels 3 and 4: managers, professionals, technicians and associate professionals) to total employment in low-skill occupations (skill level 1: elementary occupations).

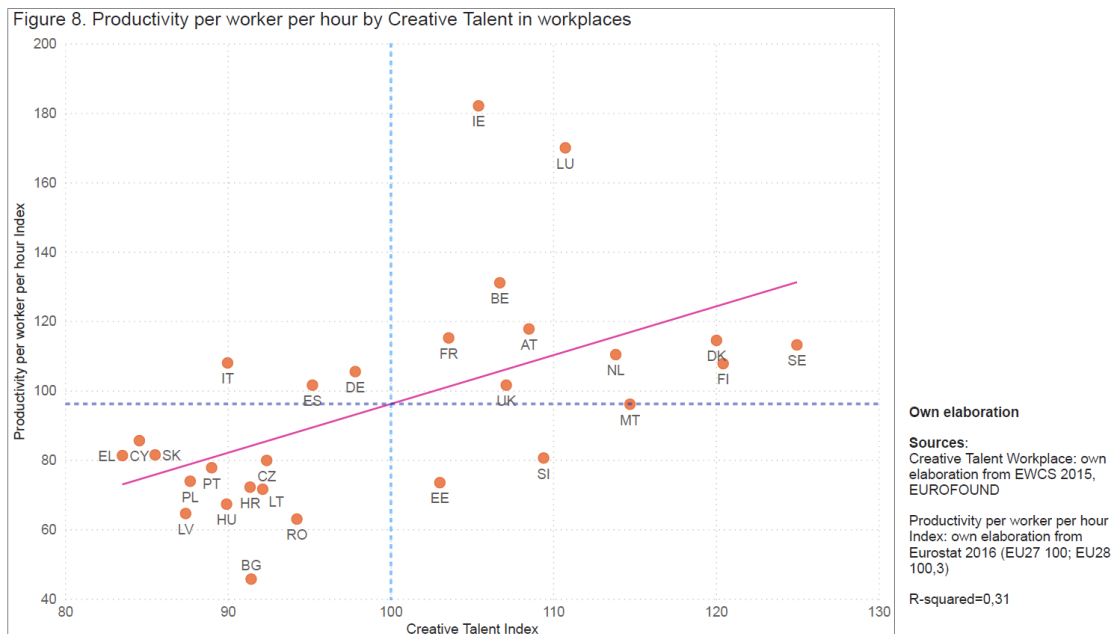
¹⁸ (UNDP, 2018)

highly skilled workplaces; and, on the other hand, that **creative workers are generally highly skilled and, therefore, more employable**. On the other side, most CEE and South European countries are below EU28 average for both creative talent and high skilled workforce.

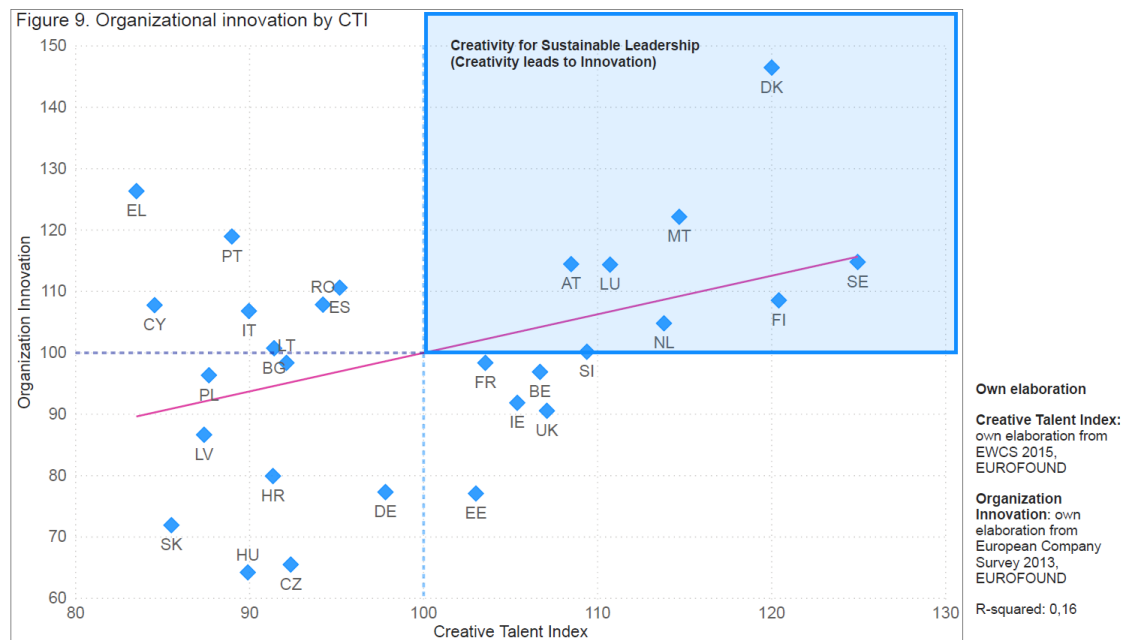
► **Is creativity connected to productivity?**

In ever more demanding global markets, firms and organizations, both public and private, are constantly challenged to be **more competitive, efficient and innovative**. This inevitably puts pressure on the productivity that organizations can obtain from their workforce.

Creativity is often misunderstood as something superfluous or a ‘nice to have’ but not crucial. Creative talent is still considered (by many business leaders and managers) as only relevant for certain departments (design, marketing, new product development, among others). **Figure 8** contradicts this view, providing the foundation for the understanding that **creative workers are more productive**.



d) Linking creativity and innovation



All innovations begin with creative ideas¹⁹. However not all creative ideas are finally transformed into innovative new processes, products, services or organizational change. To analyse the relationship between creative talent and the actual innovations sparked from it, we have constructed the Organizational Innovation Index from European Company Survey 2013²⁰. Figure 9 depicts the **positive relationship between creative talent and innovation**. The blue square comprises the countries (Denmark, Sweden, Finland, Malta, Netherlands, Luxembourg and Austria) in which **creative talent aligns to organizational innovation, fostering creative leadership and competitive advantage**. On other side, there are countries (Greece, Portugal, Romania, Spain, Italy, Cyprus, and Lithuania) in which the new products, services,

¹⁹ (T. M. Amabile, R. Conti and H. Coon, et al. 1996)

²⁰ Which is the latest available; the next wave of the survey will be release in autumn 2020. The Organizational Innovation indicator has been built as the average value of new processes established from new products and services, new marketing campaigns and organizational change established since 2010, indexed to EU28=100

marketing campaigns, processes and organizational change are executed in a higher degree than the EU average, however they seem to lack the optimal level of creative talent (perhaps to make these innovations ultimately more effective). Other countries represented in figure 9 underperform in both creative talent and organizational innovation (Germany, Bulgaria, Hungary, Czech Republic, Slovakia, Croatia, Latvia and Poland). Finally, we see countries which over-perform in creative talent however underperform in innovations (Estonia, France, Belgium, UK, Ireland and Slovenia).

In most of the cases (except for Denmark) it seems that **there is a gap between creative talent and innovation**. Although the data for the Organizational Innovations indicator is slightly aged –the source is the European Company Survey 2013, this agrees with the view expressed by CEOs²¹ that ‘Organisations are struggling to translate a deluge of data into better decision making. There is a shortage of skilled talent to clean, integrate, and extract value from big data and move beyond baby steps toward artificial intelligence (AI). One of the more striking findings in this year’s survey was the fact that — despite billions of dollars of investment and priority positioning on the C-suite agenda — the gap between the information CEOs need and what they get has not closed in the past ten years’. This information and creativity gap might require both a new leadership mind-set and agenda as well as sparking, training and scaling up creativity throughout the entire business; attracting and nurturing talent within the organizations and from the ecosystem. This might point also to a gap in creativity and knowledge management

²¹ (PWC 2019)

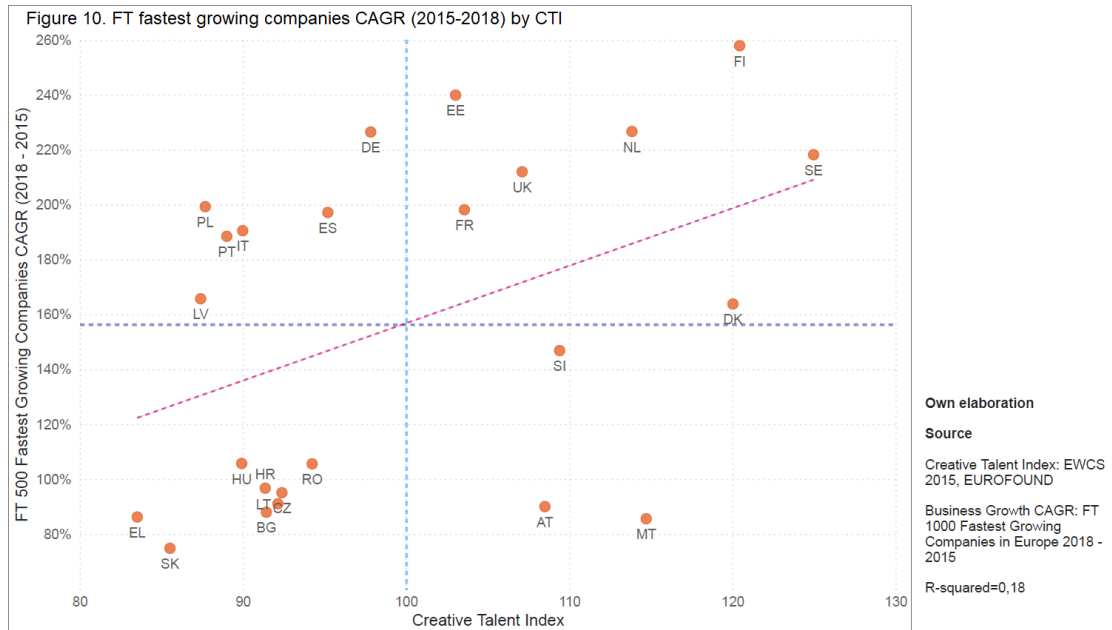
throughout the organizations and, particularly, between management and business units, technicians and staff. Improving communication and storytelling in firms might facilitate the creative flow and its incorporation into effective innovations²².

e) Is creativity *good business*?

One step further in our analysis is to explore if **creative workers are able to translate productivity into business growth**. To provide some clarity on this question²³, we rely on the Financial Times [FT 1000](#) compiled with Statista, **the list of the European companies that achieved the highest compound annual growth rate (CAGR) in revenue between 2015 and 2018**. From the FT 1000 we have selected the top **500 companies** and then calculated the national aggregate for the CAGR, which we present in the figure below in relation to the Creative Talent Index. Although not statistically significant due to low sample, the figure below illustrates a **positive correlation between creativity in workplaces and business growth**.

²² Molendowska-Ruiz and and Ruiz Soria (2020) provide clear steps to apply storytelling to enhance the creative flow in business and organizations.

²³ Although an exhaustive analysis of creativity and value generation growth is beyond the scope of the present study.



USE CASE 1. Are Physiotherapists *creative*?



“Our aim was to promote our profession and train our colleagues on the use of the different tools to communicate the benefits of Physiotherapy to the public and policy makers. The EC team blew us away with their approach, dedication and most of all, results. With them we started to build up the milestones of our current projects and campaigns. We have found the EC team to be professional, talented and a pleasure to work with. I would highly recommend them”.

David Gorria, SG, ER-WCPT

There are certain economic sectors that we do not associate automatically to creativity. In fact, we might actually have a pre-conceived idea about it that is not accurate and misrepresent the actual work delivered by the professionals and, therefore, the value that is perceived by the customers. ER-WCPT, the European Physiotherapy Network approach [Economía Creativa](#) with the aim to promote the physiotherapy profession and train member organizations and colleagues on the use of the different tools to communicate the benefits of Physiotherapy to the public and policy makers, so it could be better understood the value created and delivered. We worked with ERWCPT to identify needs, challenges and opportunities for communicating and branding physiotherapy, improving patients, society and policy makers' awareness of physiotherapy benefits for individual wellbeing and societal public health. We provided capacity building on *creative storytelling* and audience development through webinars and workshop at the ERWCPT General Assembly in Dublin (Ireland); and designed a strategic plan for branding and communicating Physiotherapy and ER-WCPT. As a result of it, ER-WCPT has successfully implemented new communication strategy engaging with target audience emphasizing the importance of physical activity and physiotherapy for people and society's health and well-being, regardless their physical condition, age, gender or time of the year, etc.. Thus, physiotherapy professionals are certainly creative!

1.2. Beyond algorithms: The paradox of skills gap in the platform economy

a) Is there *just* a skills gap?

Every CEO²⁴ and business leader is talking about the current **skills gaps**, the need for a massive **skill shift**²⁵ and how **automation** is transforming the **future of work** in the thriving **platform economy**. **Algorithms** *seem* to be taking over the jobs of many and *threatening* many others to lose theirs in the very short run, across industries and countries, while *properly* skilled workers *seem* in shortage, even in advanced economies, with the highest level of education attainment in history, particularly in the EU.

It looks like it is difficult even for the most advanced EU countries to catch up with the demands and speed of digitization, to the point that some firms offshore services from third countries –often from developing economies.

Yet the number of highly skilled and knowledge intensive workers whose work depends in a direct or indirect way from platforms is constantly growing.

In fact, despite the emphasis on skills gap, research findings support that **workers engaged in the platform economy are better skilled and better educated than the average worker in their country**²⁶. For example, in the UK ‘*crowdworkers* turn out to be well educated: the 18% holds a high school diploma, the 25% had a technical certificate or some university studies, the 37% had a bachelor’s degree and the 20% had a postgraduate degree’.²⁷

²⁴ (PWC 2019)

²⁵ (Bughin, et al. 2018)

²⁶ (Drahokoupil 2017).

²⁷ (Bogliacino, et al. 2019)

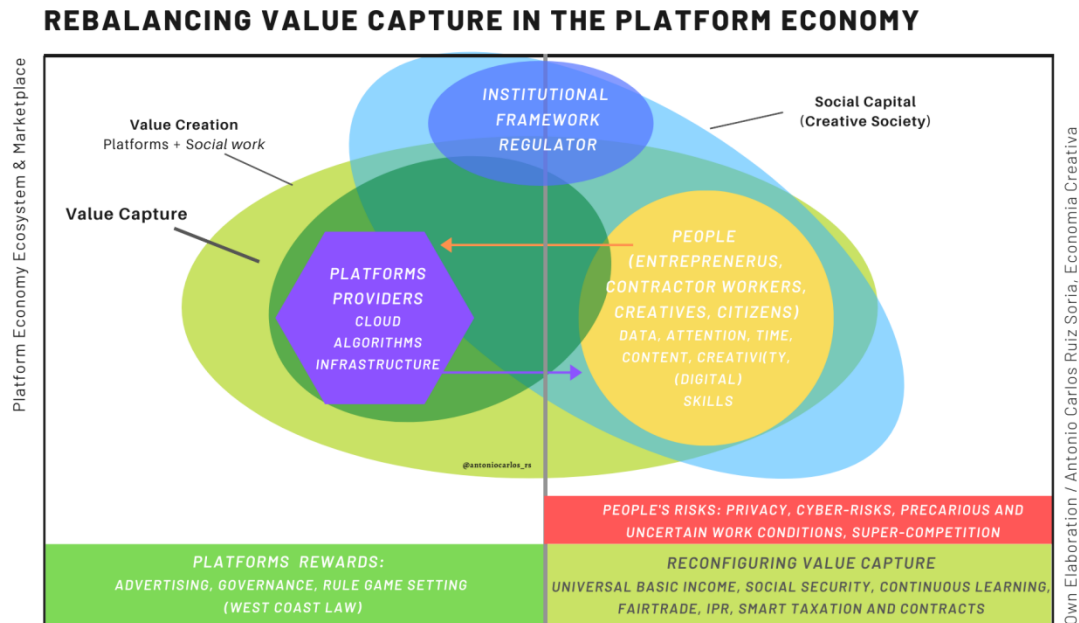
Workers and *entrepreneurs* in the platform economy are immersed in an illusion of flexibility that in fact leads often to an ‘always on’ and precarious careers, incessantly searching and waiting for projects or ‘gigs’.

Despite that it is certainly possible that employers have difficulties in finding candidates with certain skills, being creativity one of the most demanded and most scarce ones across industries and countries, it is quite obvious that to solve the paradox we have to look beyond just the need for a skill shift.

As in most (or all) paradoxes, what is really happening is that the real challenge has not been properly defined. What is really happening? Why so many highly skilled workers are dependant of precarious gigs while business leaders seem not to find the right talent? **Why (skilled) workers do not obtain a fair share in return for the value they create?**

b) Value creation and value capture in the platform economy

A closer look to what actually is happening in the **value creation** and **value capture in the platform economy** is necessary to get closer to the answers to the questions above. The infographic below presents the **value creation logic** in the **platform economy**:



- **Platform providers** (represented by the purple hexagon) contribute to the value creation by setting the **digital location (cloud)** and enabling its functioning through algorithms and other digital technologies.
- **People**, assuming various *roles*, including entrepreneurs, independent contractors, (*gig*) workers, citizens, etc., contribute by providing data, content, creativity, skills, work, attention²⁸ and time, generating a critical mass-audience of content creators-users.
- **Government and institutions** (blue oval 'institutional framework-regulator') provide the legal framework, security, etc.
- The **social capital (social creativity)** of human developed societies with higher psychological needs and aspirations, highly educated and digitally literate citizens, also contributes to the value creation by

²⁸ (Celis 2015)

providing the *context and fabric* for creativity (culture, values, tolerance, trust, openness to new ideas, etc.).

- Despite the **value is co-created**, it is mostly (or uniquely in many cases) **captured by the platform providers** (darker green oval in the infographic). In fact, only five companies (**Google, Facebook, Alibaba, Tencent and Baidu**) take almost 80% of global mobile advertising revenue, and by some estimates almost 90% of the growth is going to just two companies, **Google and Facebook**²⁹.
- Platform providers also benefit by **ruling the game and governing the platform**, by the so called ‘West Coast Law’³⁰.
- In sum, platform providers benefit by obtaining (almost all) the economic **rewards** of the game (see infographic below).
- On the other side, **people** (entrepreneurs, gig workers, citizens) are faced with **risks** such as loss of privacy, identity, precarious working conditions and cyber-risks, among others (see infographic below).
- However in the platform economy relations of **power** and **dependency** are **multi-layered** and by no means unidirectional³¹, neither algorithms driven.
- Platforms are in constant need and demand for **attention** and **engagement**, and therefore they have the value society gives them. Their value is a direct function of citizens’ and users’ attention and engagement (**social labour / social creativity**).

²⁹ (WEF 2018)

³⁰ (M. Z. Kenney 2015)

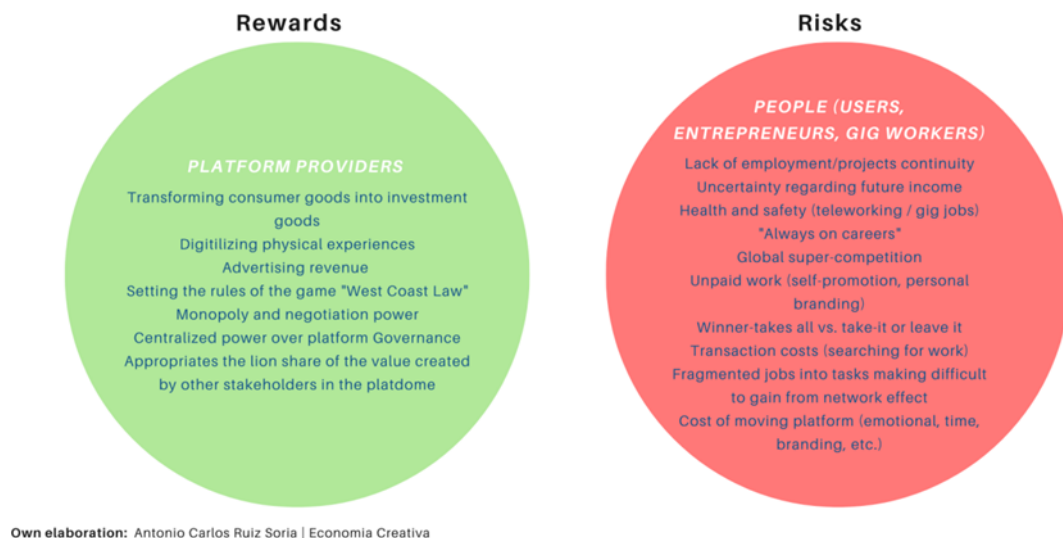
³¹ (Duffy 2019)

- Multi-layered systems
- The asymmetry in the distribution of value capture together with the multi-layered nature of the platform economy implies that its current functioning is unsustainable.
- **Therefore, it is in the interest of the platform providers, and all the stakeholders in the economy and society** (corporations, SMEs, startups, governments, etc.) **to reconfigure the value capture, level the game and minimize the risks that people** (in their different roles, i.e. workers, users, etc.) **face in the platform economy, reflecting the fact that creativity is collective and value co-created.**
- The following policies and business practices (light green block in the figure) are necessary to **reconfigure the power relations in the platform economy**, hence, the value capture by the different actors:
 - Universal Basic Income³² and Social Security coverage³³.
 - Reconfiguration of intellectual property
 - Facilitating access to continuous learning
 - Smart taxation and smart contracts
 - Fair trade schemes.

³² (Gros 2018)

³³ In *The Rise of the Ideas of the Welfare State*, (Agassi J. B. 1991), we can see that the actual challenges in the platform economy to eradicate inequality are not so new: in early XIX c. 'Tom Paine (...) developed a forgotten early version of a comprehensive system of public welfare in the second part of his *The Rights of Man* and in his *Agrarian Justice*, where he argued that the new revolutionary democratic government based on representation and universal suffrage has the duty and the means not only of relieving poverty but of preventing it by a system of universal allowances for marriage, childbirth, the raising of children, basic education, old age pensions and temporary housing and employment for the unemployed of the metropolis. This, he said, should be financed by a progressive inheritance tax levied especially on landed estates'. This, in essence is a similar idea to Universal Basic Income and other social support such as housing.

Current distribution of Rewards / Risks in the current platform economy



c) Creativity and skilled workers in the platform economy.

Let's see in more detail how the unbalanced value captured underpinned by the current logic of the platform economy is linked to workers and entrepreneurs' working conditions and skills:

- Platforms facilitate the breaking down of jobs into tasks, which are then performed by different workers, often in different parts of the world. **This actually lowers the skills requirement of the job, making easier its automation**, and also **reducing the 'control' of workers over the final one's product** with its consequences in terms of **visibility**³⁴ which is an

³⁴ (Duffy 2019)

essential trait to be able to capture value in the *attention economy*³⁵ orchestrated by platforms.

- The breaking down of jobs into fragmented tasks and performed in discontinued assignments, **decreases** the likelihood of receiving any **on-the-job training** and can thus result in the **deskilling of the workforce**.
- Fragmentation of work duration, leading to ‘independent contractors’ or ‘consultants,’ ‘working only to complete a particular task or for defined time and with no more connection with their employer than there might be between a consumer and a particular brand of soap or potato chips’³⁶, increases levels of part-time work **without the employment-related benefits that previously characterized much full-time work**.
- This erodes (or completely cancels) **employment relations, undermining workers and entrepreneurs’ negotiation power**, creating scenarios in which (some) employers feel entitled to offer **‘take-it’ or ‘leave-it’** working conditions, which might lead to **health and safety risks** (including, among others, mental health)³⁷ and precariousness.
- Although platforms may create an illusory perception of lowering the entry barriers for entrepreneurs, making easy to launch and market a business digitally, only few **winners** take the lion share of compensation for their work (winners-take-all game).

³⁵ (Celis 2015)

³⁶ (Friedman 2014)

³⁷ (Bogliacino, et al. 2019)

- Instead of equality, platforms **scale** further the **inequalities** of the *analogic* world: those better placed and with a strong self-brand gain greater audience, visibility and scalability; on the other side there is a long tail of workers and producers of content without receiving (fair) compensation for their work³⁸.

d) Are we just lost in algorithms?

As the **infographic** *Rebalancing value capture in the platform economy* showcases, the building blocks of the platform economy are the cloud, algorithms and other digital technologies providing an **infrastructure** that enables the creation of a **marketplace**. These blocks generate the necessary conditions for the interactions and transactions to take place in the platform, however they are not sufficient. Platforms need a **critical mass** of users: **people**³⁹ (yellow circle in the infographic) who actively participate in the platform share their data, content, creativity, attention and time –their life! Platforms also benefit from the **social capital** of highly educated, actively engaged and digitally literate citizens and from advanced institutional frameworks. The **value** in the platform ecosystem and market place is **co-created**; however it is only (or mostly) **captured by the platform providers** as we have explained earlier.

Platforms exercise a **monopoly power** and rule the governance of the ecosystem by the ‘West Coast Law’ while entrepreneurs, work contractors, high skilled professionals (and *lower* skilled workers such as cab drivers –Uber- or

³⁸ (Duffy 2019)

³⁹ In their different roles

delivery workers from Glovo or Uber Eats, among other companies) are facing precarious conditions, risks and uncertainty.

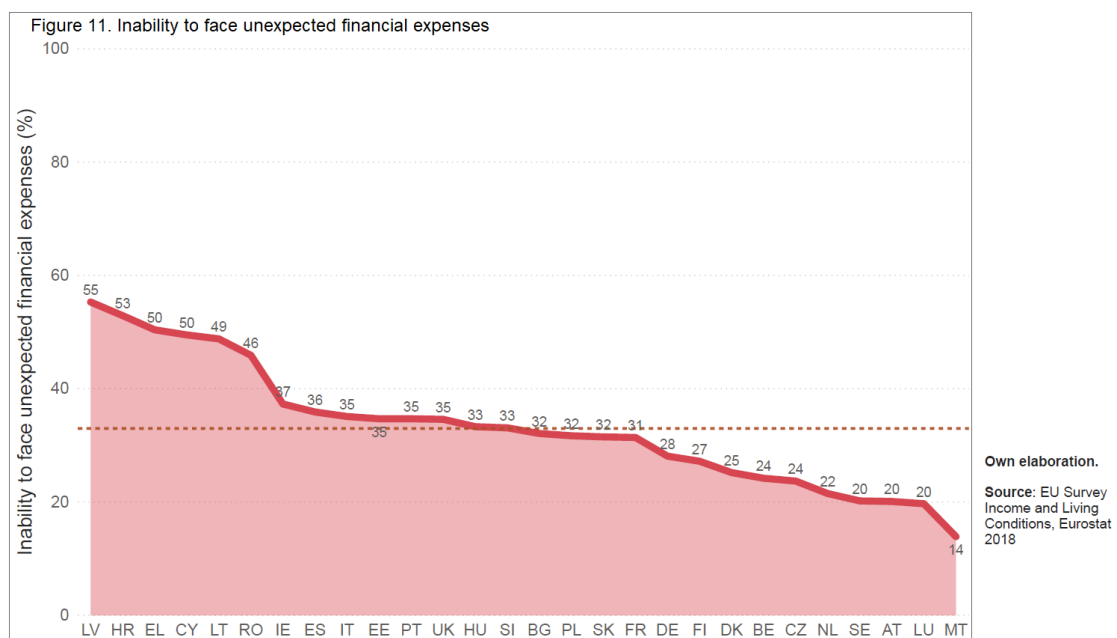
Platforms are therefore extracting the value from the new oil: people's attention and creativity; while the ever growing inequality (across and within countries) has left (in many cases) the very providers of this attention and creativity, fighting for survival. This is not the result of algorithms but of the way in which platform economy is currently configured.

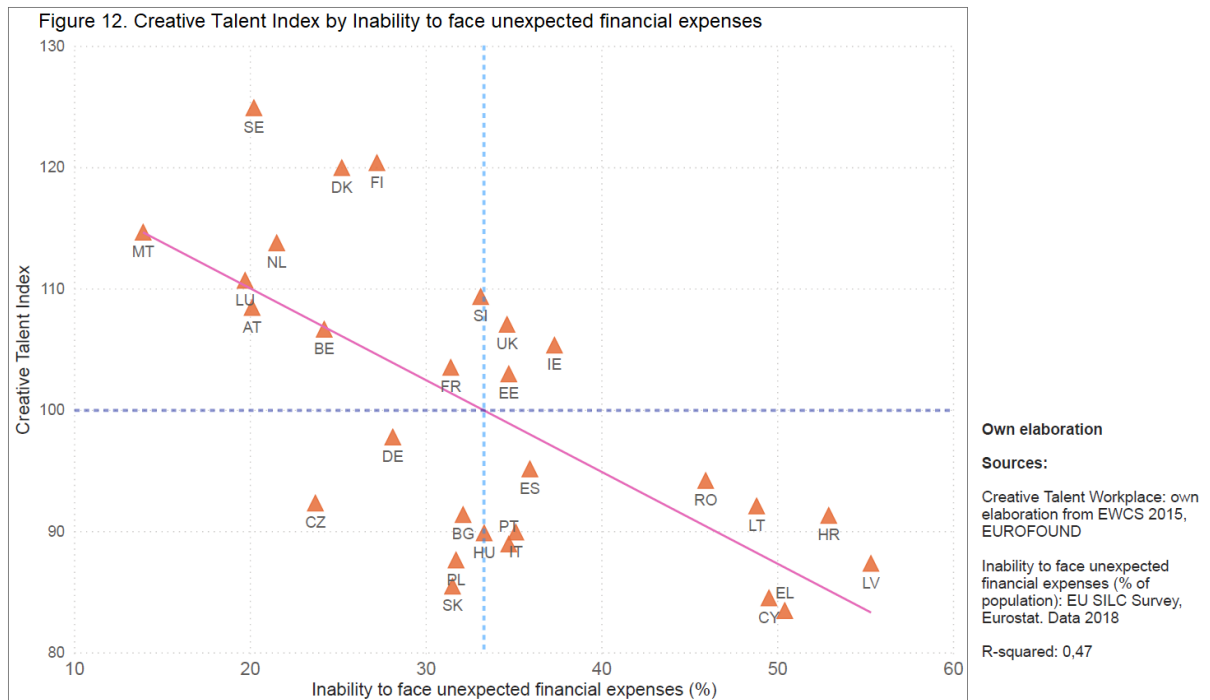
e) Relationship between creativity and living conditions

To examine the precariousness in which many citizens (and workers) in the EU might be immersed we rely on the indicator **inability to face unexpected financial expenses** retrieved from **European Income and Living Conditions Survey**, Eurostat. Figure 11 provides **an irrevocable proof of the precarious living conditions of a large proportion of European citizens (and workers) across countries: 1 in 3 Europeans is unable to face unexpected finances;** this increases to **1 in 2 citizens in six European Member States** (Latvia, Croatia, Greece, Cyprus and Romania); even in the most advanced EU economies (Luxembourg, Austria, Netherlands, Belgium, Denmark, Finland, Germany and Sweden) more than **1 in 5 citizens is unable to meet unexpected financial expenses.**

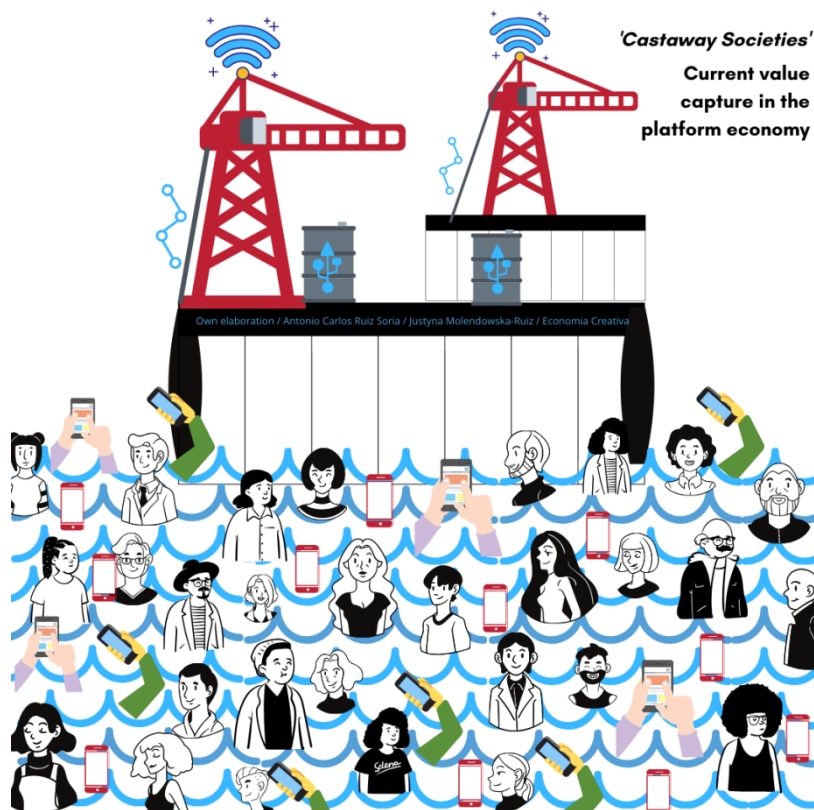
► Relationship between financial uncertainty and creative skills

In order to analyse how the precarious situation faced by many Europeans across countries relates to creativity, we put in relation the inability to face unexpected financial expenses indicator with the **Creative Talent Index in workplaces**. It is not a surprise that figure 12 shows a statistically significant correlation between both variables. **As the inability to face unexpected financial expenses grow, creative talent decreases. When workers and entrepreneurs are faced with difficulties to cope and exposed to the high levels of uncertainty and unpredictability over their future income in the platform economy (while facing super-competition) it cannot be expected an optimal supply of creative talent in the economy.**





f) Platform winners and *castaway* societies



The current design of the platform economy resembles an *oil platform*, built in the middle of the ocean, with some people above the platform (the winners) and a large share of the population in the

middle of the ocean, like *castaways*, fighting for survival, unable to face unexpected financial expenses and without certainty about their future income.

The fluid labour markets necessary to foster creativity, as pointed out by Lorenz and Lundvall (2010) have not been complemented with the right labour policies; either due to lack of unemployed benefits or not enough investment in active labour market policies⁴⁰; and ultimately due to the fact that the focus on protecting full-time jobs is obsolete and irrelevant in the midst of the platform economy.

Thus, instead of fluid labour markets people are faced to swim in the middle of the ocean; that is, immerse in an oceanic (global) labour market competition, without a standing point.

In consequence, the current logic of the *platform economy* has led to **castaways' societies** (see picture above) that *needs* more than to be rescued, to be **reconfigured**.

g) Beyond algorithms: putting people at the centre in *creative societies*

It is certain that **automation** and **digitization** are disrupting the very conception of work, making redundant many jobs and even whole industries, however to focus only on *reskilling* the *workforce* is to consider skills only as a mere *feature* of people, like air-conditioning or 5G in the case of a car or a smartphone.

If the skills paradox is to be solved, policy makers and business leaders have to consider people as more than mere cogs in the economy. The economic risks –as we have detailed in the infographic *Current Rewards and Risks Distribution in the Platform Economy*- have been transferred into people

⁴⁰ In fact it is necessary for flexible labour markets.

(workers / entrepreneurs), while labour markets and welfare states have been dismantled over the last decades.

The *enclosed* market perspective from neoclassical economic theory seems to be treating differently the same individuals: it aims at the same time to maximize profit from consumers' spending while cutting wages to the workers (who after have to make the purchases) and deteriorating working conditions. This logic, taken in aggregate and in a medium-long run perspective necessarily generates **exponentially growing inequality and economic collapse.**

► **Let's illustrate it with an example of an EU creative and digitally skilled worker: the case of a web designer**

Put it simple, we have arrived to the situation that someone, for example a ***creative and digitally skilled worker: a web designer***, is offering his/her services in a platform competing with the whole world (including developing countries); often without option (except for few leading experts or *winners*) he/she has to *take-it or leave-it* whatever price the 'market' is offering in the platform; he/she is therefore obliged to accept a compensation for, let's say, designing a website, at the level of wages/fee in a developing economy. However this person, lives in Europe, has to make his/her shopping in a European supermarket, at EU prices, pay rent at European cities' prices, and so on. **It is a corollary that these working conditions can lead to this person to be unable to meet unexpected financial expenses. In sum, the web**

designer is swimming in the middle of the ocean, without any shore in sight.

► **Platforms also generate positive externalities**

It is important to remark, as it will be also exemplified in the *Use case 2, The Power of Connecting Cultures Digitally*, that platforms are not *per se* generating only negative externalities. By no means it is intended in this report to imply that platforms have to be eradicated.

Truthfully platforms create many positive externalities (for instance facilitating political, social and civic activism); and have brought benefits to consumers in terms of choice and quality of creative content. For example, Nesta's report *The impact of internet and digitization on European creative sector* highlights that 'European music streaming services such as **Spotify** and **Deezer** have libraries of 30 to 40 million tracks, broadening listeners' musical experience, whilst book (and eBook) retailer Amazon offers over 5 million titles'⁴¹.

Hence, we have to look beyond algorithms and the understanding that the current logic of platform economy is a given consequence of technology and focus on reconfiguring platforms play field **to rebalance the power relations** and **value capture** across the multiple actors and stakeholders that actually contribute to make them vibrant (digital) places for sharing life, work transactions, political campaigns, sparking and scaling creativity, etc. Algorithms

⁴¹ (NESTA, Oliver & Ohlbaum Associates Ltd, and Analysys Mason 2017)

are not setting the future; it all depends of the choices we make as society and as individuals.

h) Linking creativity and the social capital

Neither platforms, nor creativity or skills grow in a vacuum. **Platforms rely on people's attention and creativity, co-creation of value and the social capital.** Innovative firms also benefit from the available talent and the institutional framework in order to attract, retain and develop creative talent.

Therefore, **creativity is collaboration.** Creative talent and skills are closely linked to the **social milieu**⁴². Although we are going to explore in further detail creativity from a societal perspective in the following section of this study, we present below the figure 13 that puts in relation creative talent and the social milieu⁴³.

The results confirm that **creativity does not emerge in a vacuum.** That the **social milieu** (tolerant societies, solid welfare states, education, participation in society and community, digitally literate citizens and digitized public administration and businesses, among other pillars that will be further analysed in Part III) **plays an important role in the emergence and development of creative talent.**

Nevertheless the importance of solid welfare states and well-functioning social protection systems for economic competitiveness, WEF in their *Social Mobility*

⁴²For an exhaustive study of the relationship of culture and institutional framework linkages to economic development in European Regions see Tabellini (2010).

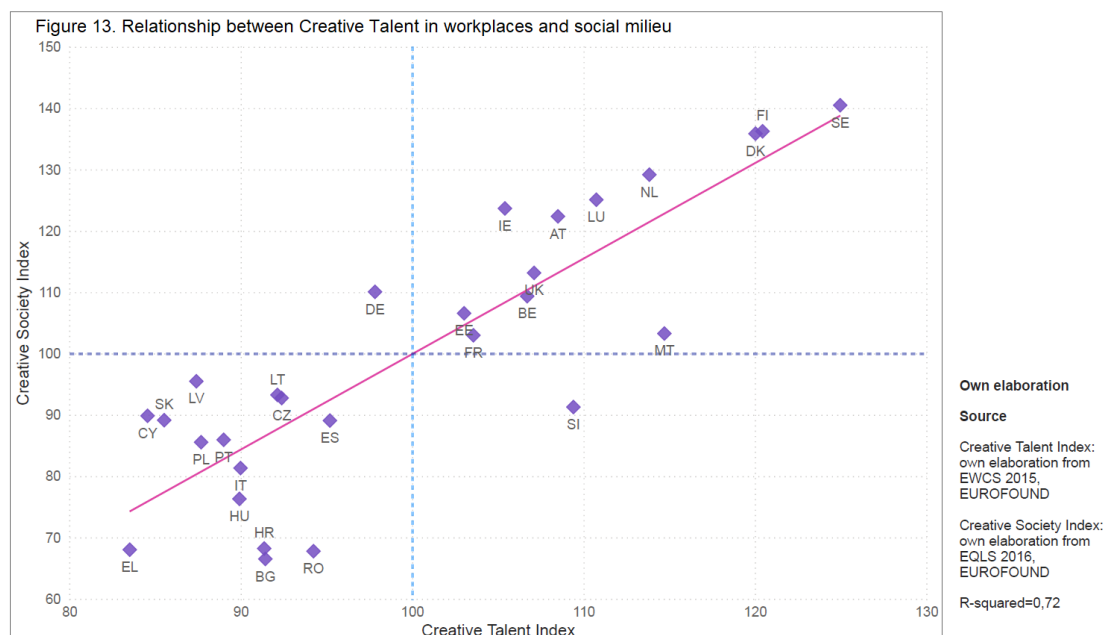
⁴³Being the Creative Society Index (CSI) the indicator for the social milieu.

*Report*⁴⁴ highlights that ‘over the past 40 years, a number of countries have deregulated labour markets and financial systems, changed tax codes and reduced public investments—often with insufficient attention to the consequences on income distribution and to potentially negative social externalities’. Hence, the deregulation of labour markets and financial systems have damaged the very social milieu that favours creative talent to emerge and flourish, having as a consequence suboptimal supply of skills and creativity for both businesses and the economy.

To revert this, policy makers, business leaders, civil organizations and other stakeholders have to co-create **new frameworks that provide economic opportunity and minimize risks for people to develop their creativity** in the face of the economic dynamic of digital platforms, big data and automation that are promoting huge market concentrations and ‘winner-takes-all’ markets. As indicated by WEF⁴⁵ ‘for more people to thrive in the Fourth Industrial Revolution and navigate the transition towards a more inclusive economy, the present state of social mobility is not economically or socially desirable, nor sustainable’. In consequence, **new institutional framework of social protection and platform economy functioning** need to be deployed (guaranteeing basic income, decent working conditions and fair share of the value created) to provide a **standing point for people** to be able to develop their talent and skills; and equal opportunities for this talent to fully reach actual value creation and value capture.

⁴⁴ (WEF 2020)

⁴⁵ (WEF 2020d)



i) Does social protection compromise economic dynamism?

It is often questioned that robust welfare states and policies that favour social protection might erode economic dynamism. To evaluate this hypothesis, figure 14 above studies the relationship between creative society⁴⁶ and economic dynamism measured by the entrepreneurship index⁴⁷. The results contradict the view that social protection undermines economic dynamism. **The opposite is true: countries with robust welfare policies and well established social protection systems such as Denmark, Finland and Sweden (social environment context for creativity) are also the countries with higher entrepreneurship index.**

⁴⁶ As it will be further explored in Part III, one of the pillars of the Creative Society Index is the Satisfaction with the welfare services (education and health)

⁴⁷ (Zoltan 2019)

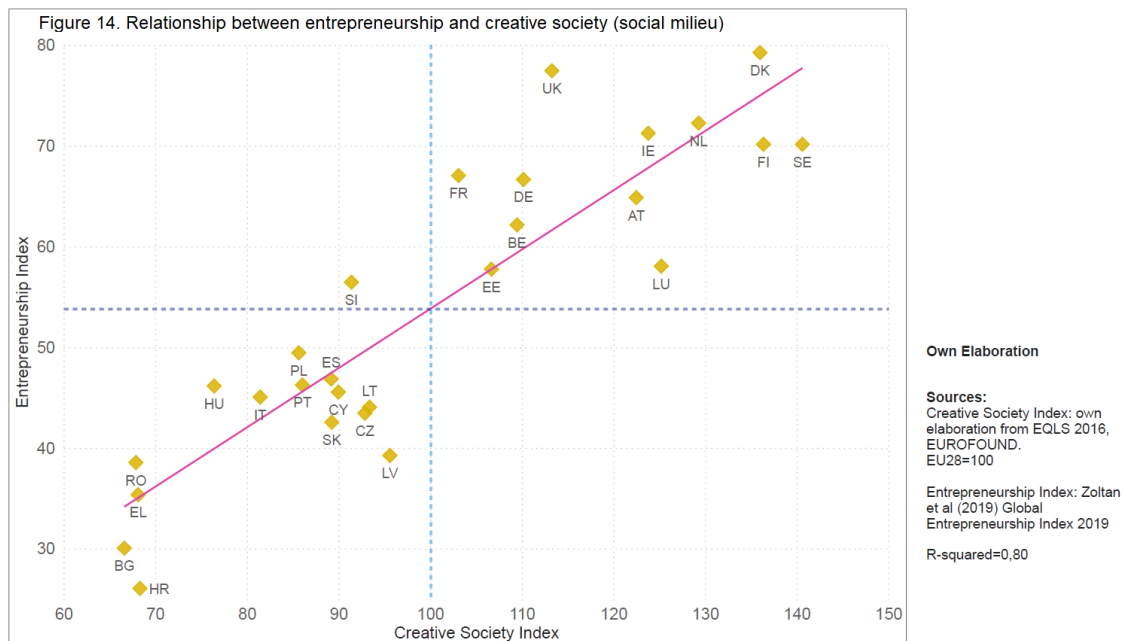
As we have seen, **what seemed a paradox actually points to the rules of the game that need to be reconfigured in order to provide the fair and right conditions for people and their (creative) talent to flourish.** The unbalanced power relations in the platform economy together with deregulations in labour and financial markets have led to *castaway societies* in which workers and entrepreneurs face super-competition, winner-takes all vs. take-it or leave-it working relations that are behind the precarious living conditions reaching up to 1 in 3 Europeans are unable to face unexpected financial expenses.

In consequence, **it is necessary to level the play field.** Given the entrepreneurial, project-base and other new form of work characteristic of the platform economy do not lead to stable or permanent working relations between employers and employees, **policy support should focus on people rather than on protecting full time-permanent jobs.** Policies such as **universal and unconditional basic income** and guarantee **health coverage and social security** can set the ground providing the **standing point people** need to be *rescued* from the *castaway* situation in which many are immersed⁴⁸. Other measures such as reducing barriers to entrepreneurship (bureaucracy, inequality) can contribute to impulse European stagnant economies by tapping into the creativity, dynamism and innovation of more people: the *missing entrepreneurs*⁴⁹ and the *castaway entrepreneurs* that are already fighting to developing their ventures in the platform economy.

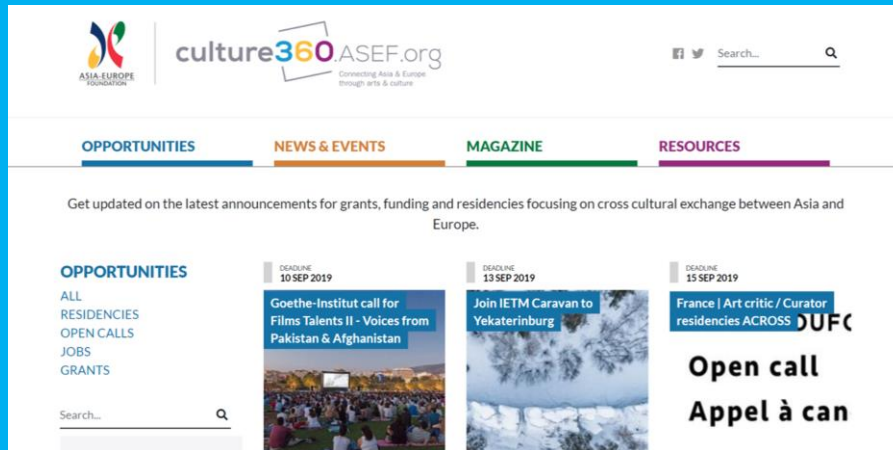
⁴⁸ Corona virus outbreak has worsen people's precariousness, however might contribute to make it more visible to policy makers and, hopefully, might imply the inevitability of policy responses to support people.

⁴⁹ (OECD and European Union 2019)

Multi-stakeholder dialogue and collaboration is required for the reconfiguration of the platform economy to be effective, levelling the game and harnessing equal opportunities and economic security for all, transforming *castaway societies* into **creative societies** (which we are going to explore in the next section of this study).



USE CASE 2. The power of connecting cultures digitally



“We have engaged with Economia Creativa for a feasibility study on possible funding solution for ASEF’s digital platform culture360.ASEF.org. We were very pleased with the result of the study. It was very detailed and gave us many new ideas on how to approach fundraising for this project. We highly recommend working with Antonio Carlos. He has fully understand our needs and delivered on time a very useful report”

Valentina Riccardi, Senior Project Manager, ASEF

ASEF’s arts and culture website – culture360.ASEF.org (C360) – has been enabling public access to relevant digital information on arts and culture for individual artists, arts organisations and policymakers across the 51 countries of the Asia-Europe Meeting (ASEM) region. ASEF needed to diversify the cultural portal funding sources.

We’ve carried out a feasibility study on public and private funding for ASEF’s, Culture 360 digital platform. The study has examined the landscape of Asia and Europe, USA and UAE and identified more than 139 feasible sources for public and private funding with particular focus on multinational corporations (MNCs) from different sectors (financial and insurance, energy, airlines, automobile, food and beverages, health care and beauty, fashion, among others) providing the rationale for win-win partnerships with culture and creative sector, in the frame of the Sustainable Development Goals (SDGs).

A new funding model has been designed for ASEF Culture 360 providing a sponsorship structure and planning tool defining type of sponsorship / partnership, rationale, number of potential sponsors and min./max. proposed funds per sponsor (apart from outlining other non-financial benefits from sponsorship).



PART II CREATIVE SOCIETY, DIGITIZATION AND SUSTAINABILITY IN THE EU

2.1. An exploratory analysis of the Creative Society in the EU

We believe that we are entering –or have entered already- a new evolutionary stage of humanity: the Creative Society⁵⁰. We advocate for it in the [Manifesto for a Creative Society and Sustainable Living](#). We agree with Stern and Seifert (2010) that ‘We need to see people as more than cogs in the economy. We need to see people simultaneously as **workers** and **citizens** and develop an approach that recognizes both’.

This is the reason why we believe we need –even in an exploratory stage- to build a **Creative Society Index** that can shed light in a broader sense about the **importance of creativity for personal fulfilment and social functioning, not just limited to the utility in the workplace environment.**

The understanding of the importance of creativity for cities, regions and societies’ development is now well established since the publication of *The Rise of the Creative Class* by Richard Florida⁵¹.

The phenomenon of the creative society was already discussed in 1999 at the OECD Forum for the Future; under the theme **21st Century Social Dynamics: Towards the Creative Society**⁵²; some remarks from the conference:

- ‘After a day and a half of discussion, conference participants concluded that the prospects for prosperity and well-being in the 21st century will probably depend on leveraging **social diversity** in order to encourage **technological, economic and social dynamism.**

⁵⁰ Further reading on Creative Society: (A. M.-R. Ruiz Soria 2019); (Kačerauskas 2015); (Reimeris 2015); (OECD 2000)

⁵¹ (Florida 2002)

⁵² on 6-7 December 1999

- In the coming decades there is a good chance that four simultaneous and powerful societal transformations will give rise to more variety and interdependence: from the **uniformity and obedience of the mass era to the uniqueness and creativity of a knowledge economy and society**; from **rigid and isolated command planning to flexible, open and rule-based markets**; from **predominantly agricultural structures to industrial urbanisation**; and lastly, from a **relatively fragmented world of autonomous societies and regions to the dense and indispensable interdependencies of an integrated planet**.
- **Policy choices** will be the determining factor in encouraging the potential synergies and minimising the friction and risks of conflict that these changes may bring⁵³.

The **social and neighbourhood** dimension of creativity is highlighted by Stern *et al* (2008): ‘To succeed on social—and economic— justice grounds, a **neighbourhood-based creative economy** must integrate **economic opportunity and social inclusion**.’⁵⁴.

Montuori and Purser (1995) in *Deconstructing the Lone Genius Myth: Toward a Contextual View of Creativity* provided new insights into how creativity is born and developed, moving from the **lone-genius** to the importance of the **societal context and the ultimately co-creation of value in society, among a plurality of actors and stakeholders. Thus, creativity is collaboration.**

⁵³ OECD (2000), The Creative Society of the 21st Century

⁵⁴ (Stern 2008)

In this section we aim to provide an exploratory analysis of the **social context that enables creativity** and **how creativity relates to *human development, digitization and sustainability***.

In this exploratory analysis we have the underlying hypothesis that **in the Digital Age, human creativity is the source of value and fulfilment**.

We believe that we are in a new stage of human evolution significantly different than the communication/knowledge society, with the supremacy of knowledge workers. We believe this new stage is **the creative society**, characterized for the rise of **creativity** as catalyst of the **reconfiguration of life, work and citizenship**.

Creation in this society (*is*) would no longer be limited to just companies and organizations or to a *creative class*⁵⁵ but could be performed by each and every citizen to their own satisfaction and fulfilment (*creative citizenship and lifestyle*) and to satisfy societal needs (*prosocial motivation*)⁵⁶.

a) The Creative Society Index

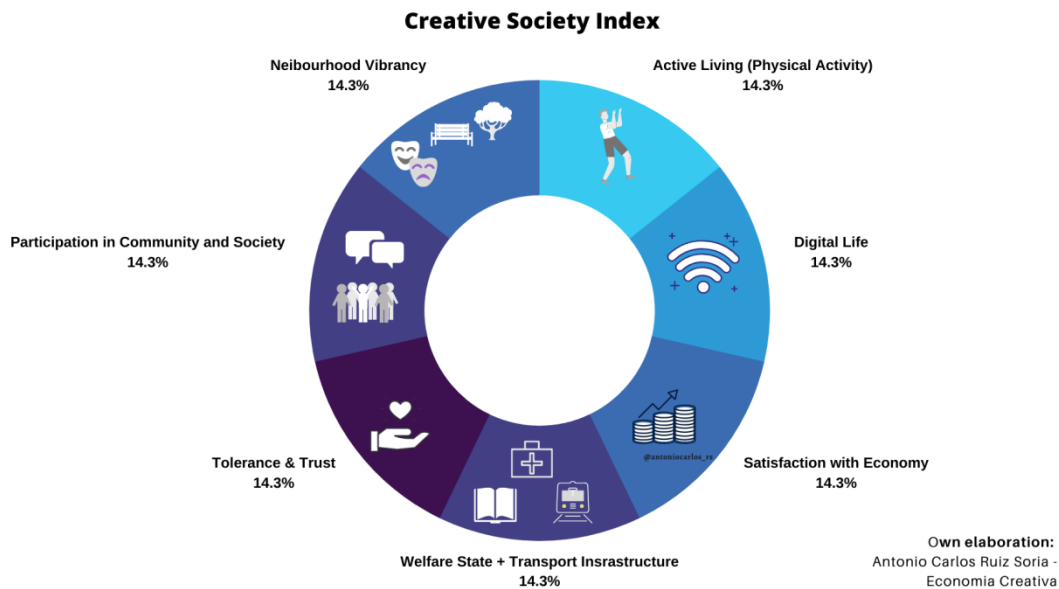
To explore **the Creative Society in the EU**⁵⁷ we have constructed an indicator in a similar way that we have done for the Creative Talent in workplaces; however in this case based on the **European Quality of Life Survey 2016**,

⁵⁵ (Florida 2002)

⁵⁶ (Grant y and Berg 2011)

⁵⁷ More on using international surveys to construct creativity indicators in (Villalba 2008)

EQLS 2016 conducted by EUROFOUND⁵⁸, hereafter EQLS 2016. For the 4th EQLS 2016, 37,000 people were interviewed in 33 European countries⁵⁹.



We have built the **Creative Society Index** on seven features that favour a **framework and environment** for **creativity** to flourish at societal level, based on questions from the EQLS 2016⁶⁰. These features are:

- **Neighbourhood vibrancy.** The importance of vibrant neighbourhoods, communities and cities for creativity is well established in the literature⁶¹.

This pillar is composed of the following components:

- **Access to culture.** Culture and creative industries play an essential role in enhancing creativity, contributing to cross-sectoral innovation, social cohesion and mutual understanding⁶².

⁵⁸ (Eurofound 2016)

⁵⁹ 28 EU Member States and 5 candidate countries; however in this analysis is considered EU28

⁶⁰ See Annex for more detailed narration about how we have built the Creative Society Index

⁶¹ For example, see *Creative and Cultural Cities Monitor* (Montalto V. 2019)

- **Access to green areas.**
- **Satisfaction with welfare services and transport infrastructure.** As we have seen in the case of creative talent in workplaces⁶³, creativity is more likely to emerge in contexts of **well-established welfare systems** (education, health). Transport infrastructure also plays an important role for people's mobility and economic dynamism. The components of this pillar are:
 - **Satisfaction with education** (the relationship between education and creative society will be further explored).
 - **Satisfaction with health system.** People living in societies with a good quality health system are more likely to enjoy a long and quality life, favouring the development of their creative potential.
- **Active living (physical activity)**⁶⁴. Studies have linked regular physical activity with wellbeing and creativity.
- **Participation in community and society.** This pillar captures how active are citizens in their communities and/or advocating for social causes; or taking part in training courses for work or for purposes other than work. This pillar components are:
 - Volunteering in society and community
 - Volunteering in culture
 - Volunteering for a social movement

⁶² For an analysis on the economic impact of Creative Industries in Europe: (Boix-Domènech and Pau Rausell-Köster 2018)

⁶³ Part I of the present report.

⁶⁴ Exercise enhances creativity independently of Mood, (Steinberg, et al. 1997) / For the relationship between walking and creative thinking (Oppezzo and Schwartz 2014)

- Volunteering in politics
- Participation in social activism
- Training (professional reason)
- Training (no professional reason)
- **Satisfaction with economy.** Good and decent standard of living is a necessary condition for being able to fully develop the creative potential at individual level⁶⁵; a well-functioning economy also reinforce positive expectations and general outlook for consumption, startups, etc. generating forward positive effects.
- **Tolerance and Trust⁶⁶.** This pillar measures the *social temperature*. Open-minded societies are more able to attract people from different fields -including migrants and refugees- and favour mutual understanding among their inhabitants. This pillar is composed by the following components:
 - People can be trusted
 - Tensions young-old
 - Racial/ethnic tension
 - Tensions due to sexual orientation
 - Trust in legal system

⁶⁵ As we have shown in Part I of this study.

⁶⁶ The relationship between tolerance and trust and creativity is well established in the literature and previous culture and creativity mappings; see (Florida 2002); (Tabellini 2010); (Montalto V. 2019); among others.

- **Digital life.** In the digital age, **creativity and technology converge**⁶⁷, making digitization part of our daily lives, work, socialization, public admin and e-transactions. This pillar captures different aspects of citizens interactions with digital interfaces:
 - Use of internet for reasons different than work
 - Found job online
 - Bought something online
 - Public admin errand online
 - Used online facilities

This conceptual frame builds upon previous indicators of creativity at regional level such as **The Cultural and Creative Cities Monitor**⁶⁸ which is structured in three main areas: **cultural vibrancy, creative economy and enabling**

Table 2. Creative Society Index and CSI Pillars

Rank	Country	Welfare Services + Transport	Neighbourhood vibrancy	Tolerance and trust	Satisfaction with economy	Active living	Participation in community and society	Digital Life	Creative Society Index
1	SE	109	113	84	131	174	217	155	141
2	FI	119	112	104	113	189	178	140	136
3	DK	114	118	137	133	142	164	144	136
4	NL	111	115	83	129	167	156	144	129
5	LU	115	111	126	148	133	133	110	125
6	IE	101	105	120	115	132	161	132	124
7	AT	116	101	98	123	134	177	108	122
8	UK	105	111	89	109	120	130	129	113
9	DE	108	99	89	133	133	116	92	110
10	BE	110	102	80	107	110	149	108	109
11	EE	98	105	95	98	129	83	138	107
12	MT	115	96	98	141	87	79	107	103
13	FR	106	104	97	86	103	109	117	103
14	LV	85	104	124	80	76	82	119	96
15	LT	96	106	102	82	89	71	108	93
16	CZ	99	95	91	109	94	62	100	93
17	SI	97	102	81	80	108	93	79	91
18	CY	86	111	108	80	78	86	81	90
19	SK	89	101	102	92	84	61	95	89
20	ES	103	95	121	74	84	73	74	89
21	PT	95	83	109	86	93	65	72	86
22	PL	95	91	97	109	68	55	85	86
23	IT	91	94	81	74	76	83	70	81
24	HU	93	83	87	102	47	45	77	76
25	HR	91	88	79	70	42	60	49	68
26	EL	77	94	112	49	52	35	57	68
27	RO	92	74	88	84	33	48	55	68
28	BG	84	88	118	64	24	34	55	67

Own elaboration

Source:
EQLS 2016,
EUROFOUND

⁶⁷ (WEF, Creative Disruption. The impact of emerging technologies on the creative economy 2018)

⁶⁸ (Montalto V. 2019)

environment. Our aim is to focus on the ***social milieu*** that favours creativity to then explore in our analysis how it correlates with socioeconomic and demographic variables and sustainability.

Table 2 presents the national aggregate values for each of the pillars of the Creative Society Index (EU28 average=100). In our exploratory analysis, we assume as hypothesis that each of this seven indicators have an equal weight in the Creative Society Index (although other hypothesis can, of course, be pursued). In consequence, **the Creative Society Index for each of the countries considered is the result of the average value of the seven pillars indexed to the EU28 mean value; that is, we consider EU28=100.**

Figure 15 below clearly shows that there are –as well as in the case of the Creative Talent Index- differences across the EU countries. It is clearly visible the different intensity of Creative Society Index (dark blue colour in the map) in the **Scandinavian and Western European countries** versus the **Southern, Central and Eastern** counterparts (with light blue colour).

In terms of the **Creative Society pillars by country (figure 16)**, we see that Sweden, Finland, Denmark clearly outperform on **Active Living** (Physical Activity), **participation in community and society, digital life, welfare state.**

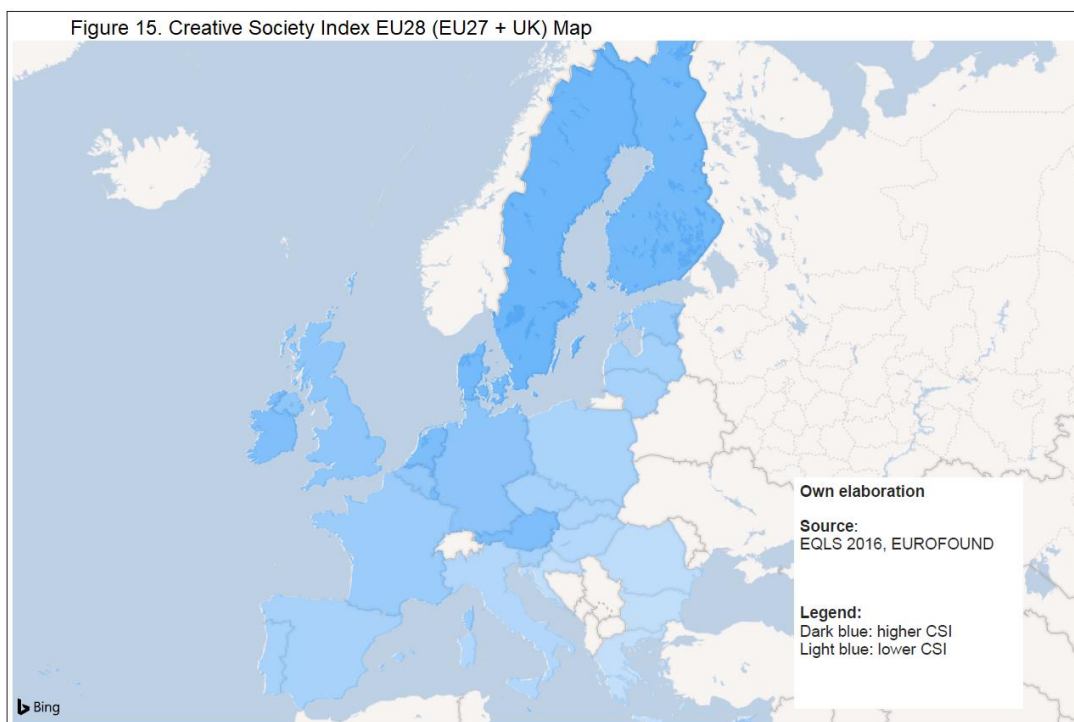
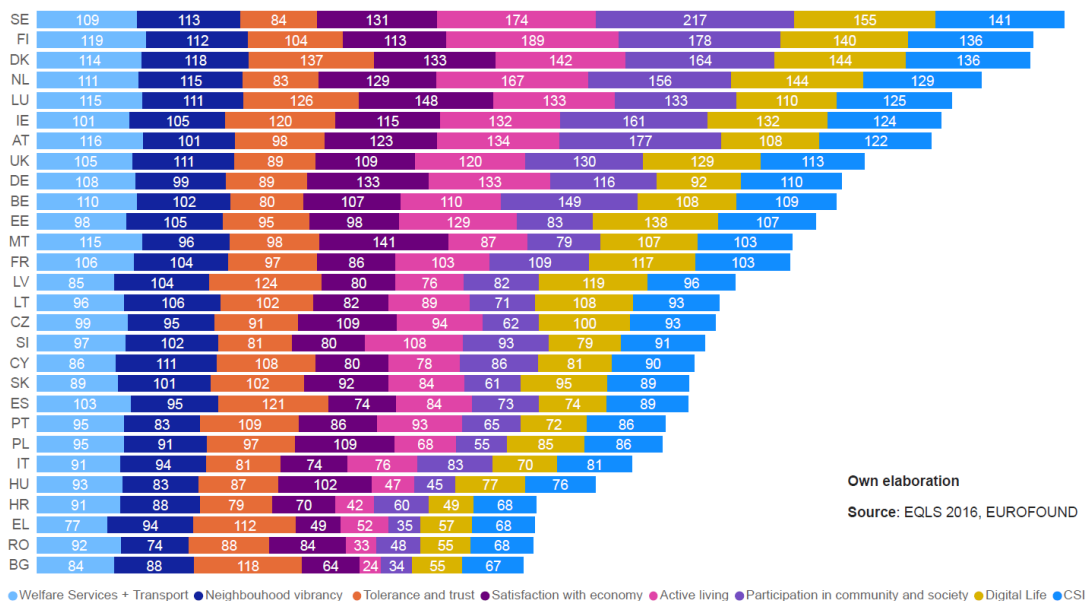


Figure 16. Creative Society Index and CSI pillars (EU28=100)



b) Creativity, economic and human development.

We now are going to explore how the CSI relates to socioeconomic and demographic variables. To begin the analysis, we put in relation the CSI with **GDP PPS** (figure 17) and then with a more comprehensive indicator of human development, the **Human Development Index** (figure 18).

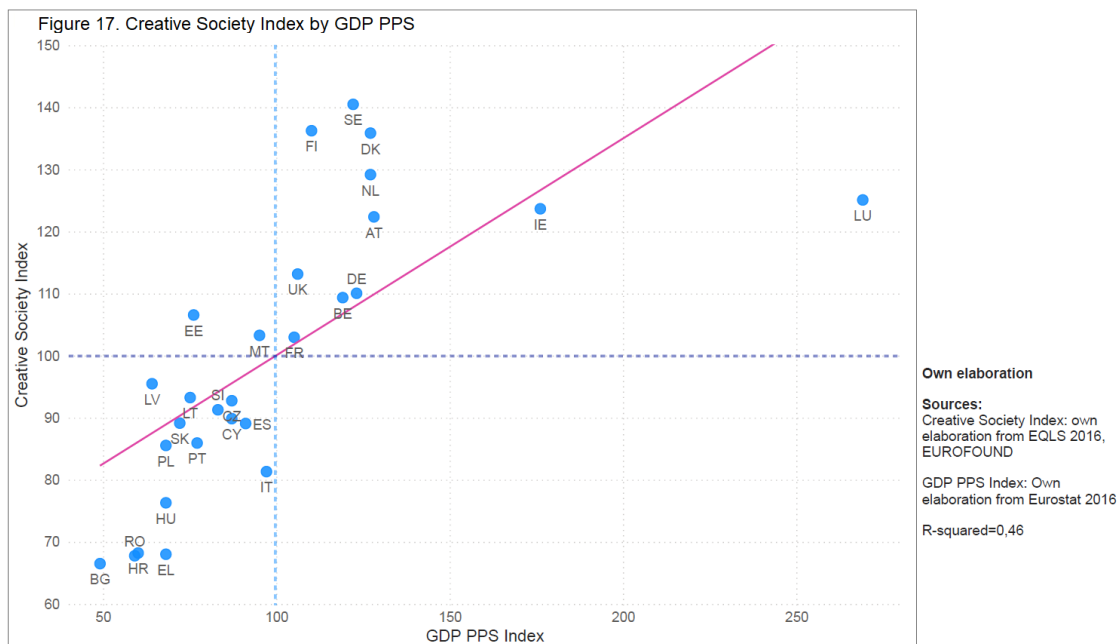
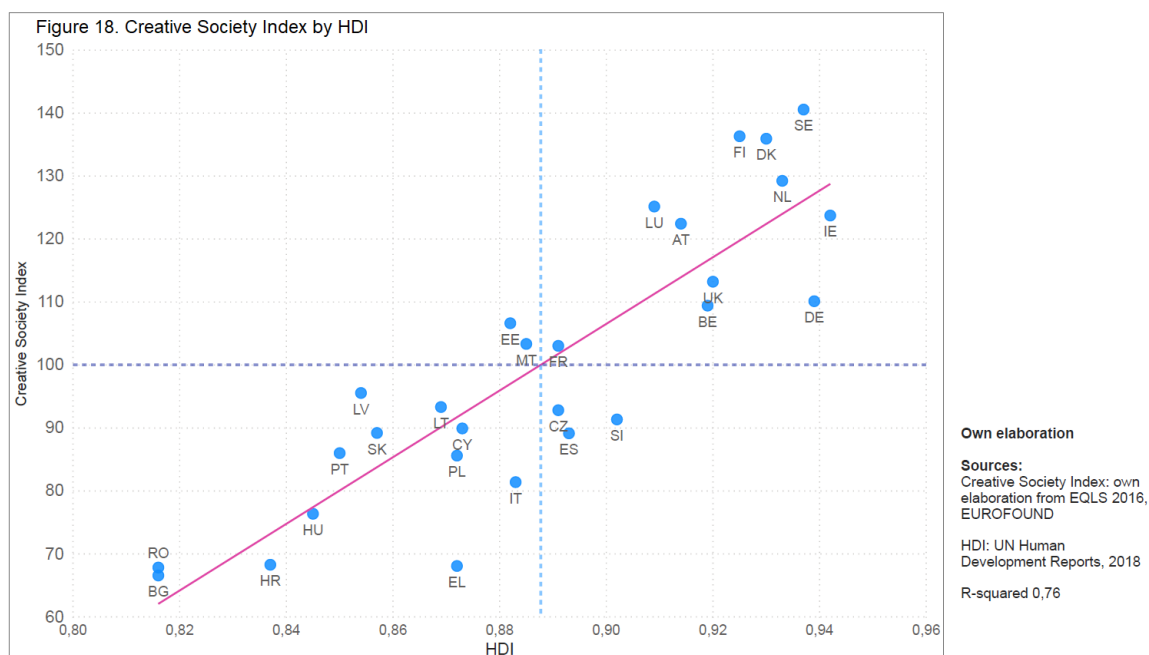


Figure 17 showcases the aggregate correlations at the national level of the positive (and statistically significant) relationship between the GDP PPS Index and the CSI, that is, **the more developed a country is, the higher is expected to be its *collective creativity*.**



► Creativity and Human Development.

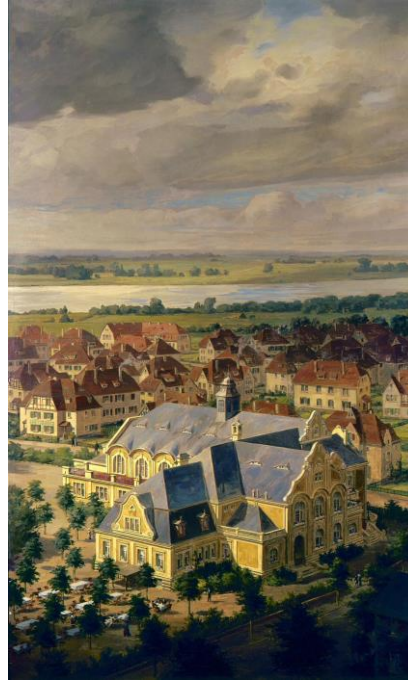
Nevertheless the GDP PPS is a good indicator of a society's development in economic terms, in accordance with UN Human Development Indices and Indicators⁶⁹, we believe that **'people and their capabilities should be the ultimate criteria for assessing the development of a country'**, not GDP indicator alone, that is why we put in relation the CSI with the **Human Development Index**⁷⁰. Considering EU28 as base (EU28=100), **Figure 18 presents the positive correlation between human development** (a long and healthy life, being knowledgeable and have a decent standard of living) and a creative society (citizens satisfied with the economy, with the quality of welfare state –education and health services- and transport infrastructure, active living,

⁶⁹ (UNDP 2018)

⁷⁰ The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: **a long and healthy life, being knowledgeable and have a decent standard of living**. <http://hdr.undp.org/en/content/human-development-index-hdi>

dynamic participation in community and society, vibrant neighbourhoods and digital *living*), as it could have been expected. **This confirms the view that human development is correlated to social milieus enabling creativity.**

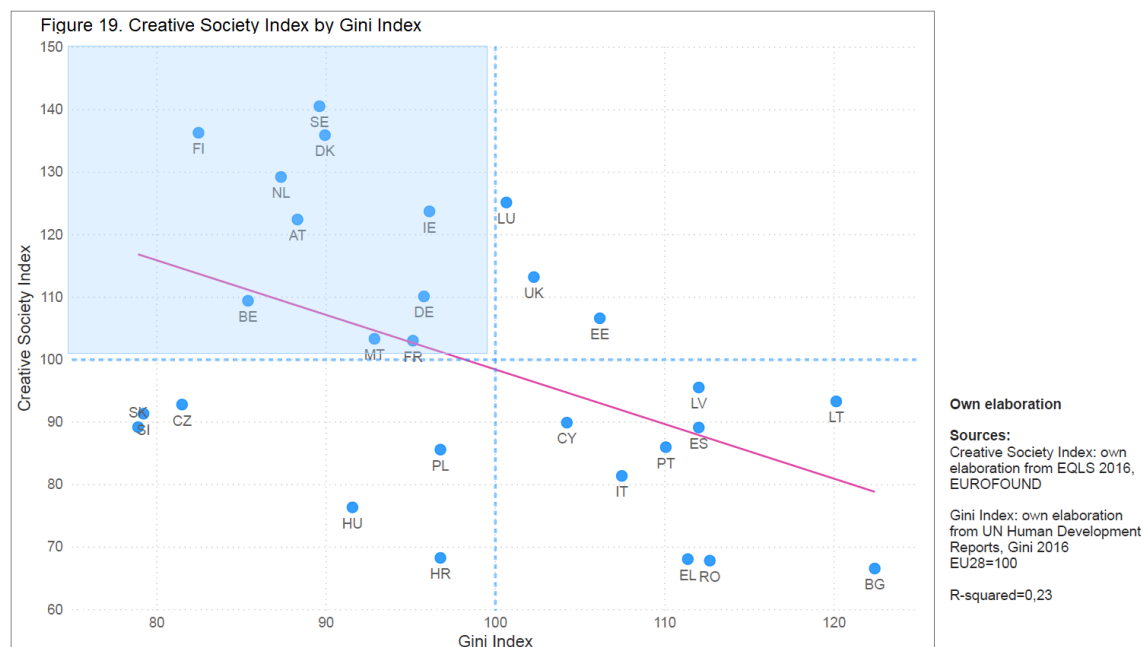
Box 2. Bayer project “This is my city” – Urban identity



Bayer urban identity project ‘*This is my city*’ emphasises the importance of creativity and of citizens perception and active involvement in the process of creating the meaning and the city’s identity. Prof. Dr. Oliver Scheytt describes the project as follows: ‘How do we experience a city? What aspects of it do we notice? We first experience a city in terms of its architecture, as a collection of structures. Our experience is essentially shaped by certain fixed points, such as the old or new parts of the city, high-rise or flat-roofed buildings, towers, greenspace or bodies of water. They help us to orient ourselves – in unfamiliar as well as familiar environments. Department stores and town squares, historical buildings and fountains are features that allow us to describe a city in specific and vivid terms. They lend it a distinctive character – provided that its individuality has not fallen victim to the kind of one-size-fits-all architecture that has become ubiquitous; chain stores are a prime example of this phenomenon. Historical and topographical elements play a crucial, indeed irreplaceable role in our perceptions of a city. Cultural buildings, such as museums and theaters, and educational institutions, such as libraries, music schools and adult education centers, can be distinctive markers as well, reflecting how the city sees itself.’ (...) ‘**Contributing factors (for shaping city’s identity) include the *people* who live there, the relationships among various population groups, the residents’ national origins, foreigners and students**’. (Cursives added)

c) Relationship between creativity and equality

HDI does not reflect inequality. That is why figure 19 below puts in relation CSI with the GINI Index⁷¹ supporting the view that **equality** is an important pillar of a creative society. Taking the EU28 as base (EU28=100), except Luxembourg, UK and Estonia, **all of the EU countries whose Creative Society Index is above average are within the blue square (lower inequality).**



d) Is *demographics* destiny? Creativity and social mobility

Due to the rising inequality over the last few decades across and within countries, is becoming a real concern the fact that demographics might be destiny, generating *immobile* societies that replicate the *status quo* of inequality.

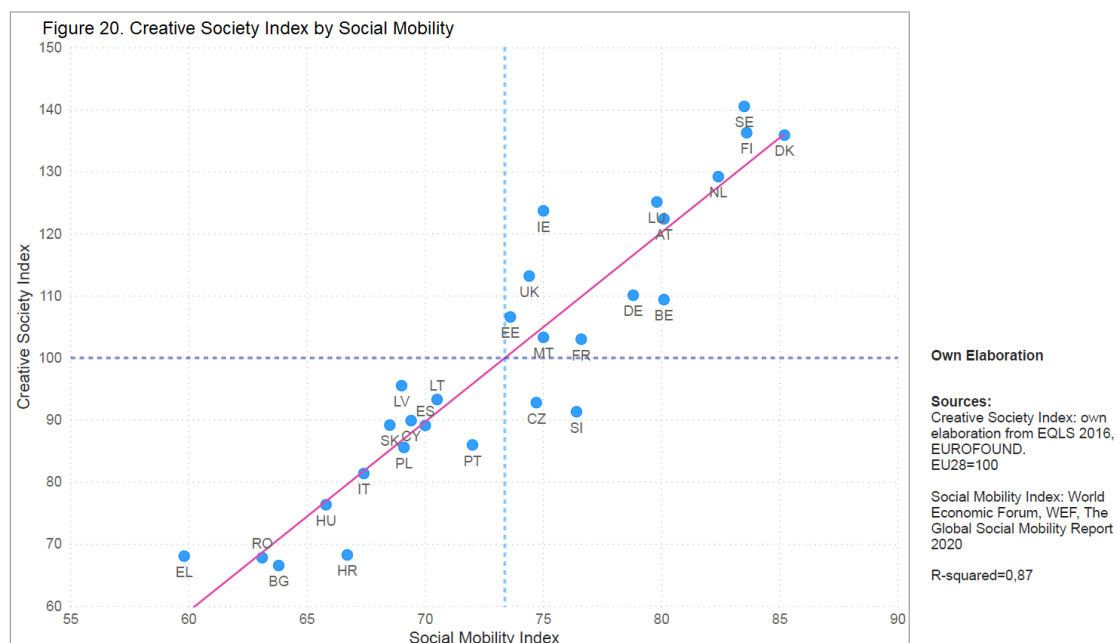
The question then is: **can creative societies be a catalyst for social**

⁷¹ Gini Index: is a statistical measure of distribution developed by the Italian statistician Corrado **Gini** in 1912. It is often used as a gauge of economic inequality, measuring income distribution or, less commonly, wealth distribution among a population

mobility? Or also put in the other way, can social mobility foster creativity?

To answer these questions we rely on the **Social Mobility Index obtained from WEF *The Global Social Mobility Report 2020*⁷²**. **Figure 20** showcases the positive and highly significant statistical correlation between **social mobility** and **environments and social frameworks enabling creativity (CSI)**.

This paves the way to a positive answer to the questions above, that is, in **creative societies** an individual's chances in life are (at least) **less determined by their starting point** (socio-economic status at birth, where they were born, etc.); and on the other way around, social mobility can stimulates creativity by providing further opportunities of self-actualization and self-realization of creative talent (when considering social mobility a positive sum game).



⁷² (WEF 2020)

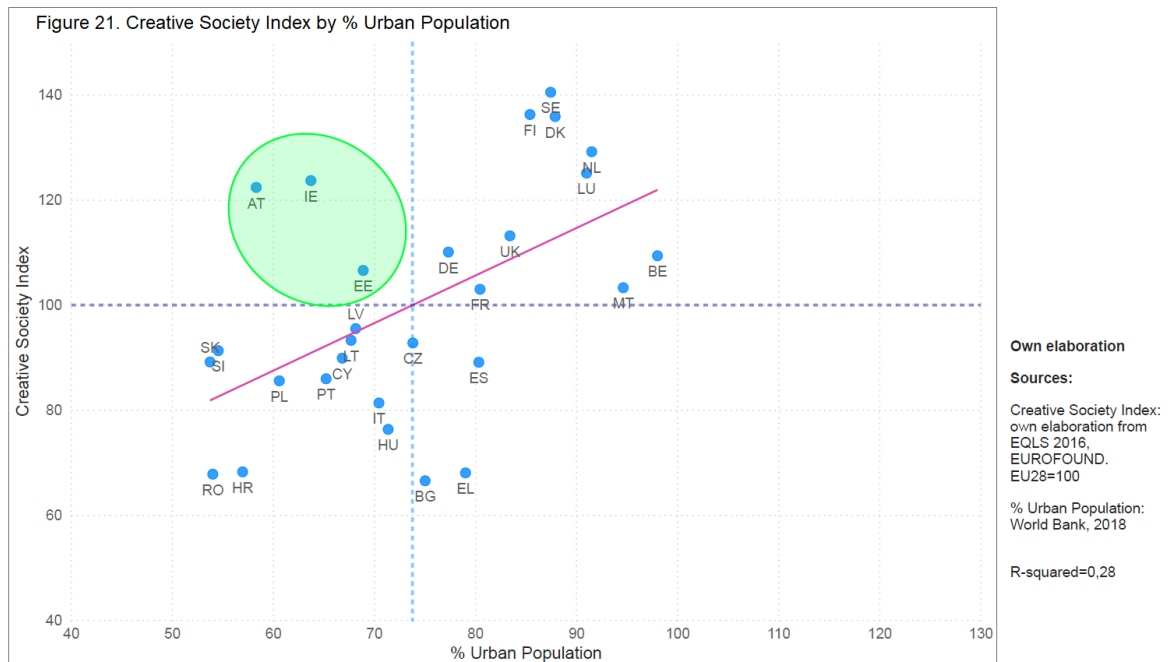
e) Creativity and territorial cohesion (urban-rural)

What is the relationship between creative societies and the degree of urbanization? Is creativity restricted *only* to the *urban milieus*? Can *creative societies* also flourish in rural areas?

Figure 21 portrays the relation creative society and urbanization (% of urban population). Although most of the countries over-performing in terms of Creative Society Index also have higher levels of urbanization, the fact that **Austria**, **Ireland** and **Estonia** (green area in figure 21) urbanization's level is below the EU28 average, provides arguments for the possibility of **developing models of creative society enabling territorial cohesion between urban and rural areas**, particularly in advanced societies with **embed technology and high quality transport infrastructure**. This agrees with the view expressed by Helliwell *et al* (2020) in **World Happiness Report 2020** that 'many residents in restructured rural areas of developed economies are no longer dependent upon farming, and the expansion of urban centres means many find themselves living and working in close proximity to metropolitan centres and able to 'borrow' the positive effects of much larger cities'. Furthermore it can be pointed out –as the **Use Case 2 Enabling Farmers for the Digital Age** exemplifies- the fact that digitization and creativity are also part of agriculture knowledge and innovation systems⁷³; in facts farmers are constantly more digitized and developing creative solutions to tackle climate change, production efficiency, innovative

⁷³To further explore the linkages between creativity and learning and agriculture knowledge and innovation systems see EIP AGRI (2018)

ways to shorten supply chain and adding quality and value to the products delivered to final consumers.



USE CASE 3. Enabling Farmers for the Digital Age



‘Participants in the workshop acknowledged the value of the event. According to a participant, the workshop “gave a thorough understanding of the factors at play as well as providing good contacts”. Overall the audience considered that the activity contributed to “expand the digital agricultural community” while providing “lots of ideas valid for implementing with different actors” in different regional contexts’.

EIP-AGRI AKIS Workshop Final Report

Today many farmers are already benefiting from digital technologies, but barriers still exist stopping these digital technologies from being used to their full potential. The workshop Enabling farmers to the digital age: the role of AKIS aimed to tackle these barriers, explore and strengthen the role of Agricultural Knowledge and Innovation Systems (with a particular focus on advisers and rural networking), supporting the understanding and use of digital technologies at farm level.

Antonio Carlos led the facilitation of the EIP- AGRI Service Point, European Commission, workshop ‘Enabling Farmers for the Digital Age: the Role of the Agriculture, Knowledge and Innovation Systems (AKIS) held in Jurmala, Latvia on 26-27 April 2018. 94 delegates from 25 European countries took part in the workshop representing the most relevant actors of AKIS. The main objective was to explore and strengthen the role of AKIS (with a particular focus on advisers and rural networking), supporting the understanding and use of digital technologies at farm level.

The results from the break-out groups highlighted that digital solutions can benefit AKIS functioning in many different ways. The key is to understand the different level of digitisation across sub-sectors, geographies and, to certain extent, demographics and address communication and training needs accordingly.

f) Creativity and competitiveness

To analyse the relationship between creativity and competitiveness we rely on the Global Competitiveness Index⁷⁴ by WEF⁷⁵ that we put in relation in figure 22 with creativity in workplaces and in figure 23 with the enabling environment for creativity (CSI). The figures present a positive and highly statistically significant correlation between competitiveness and creativity in workplaces and considering the social framework enabling creativity (solid welfare policies, participation in society, digital life, etc.).

The WEF highlights in the *Global Competitiveness Report 2019* that ‘Since the Great Recession, policy-makers have kept the global economy afloat primarily through loose and unconventional monetary policy. But despite the massive injection of liquidity productivity growth has continued to stagnate over the past decade. Although loose monetary policy mitigated the negative effects of the global financial crisis, it may have also contributed to reducing productivity growth by encouraging capital misallocation’. Thus, the aftermath policies of the Great Recession have reduced competitiveness, misallocating and underusing resources and talent.

⁷⁴ The GCI 4.0 is the product of an aggregation of 103 individual indicators, derived from a combination of data from international organizations as well as from the World Economic Forum’s Executive Opinion Survey. Indicators are organized into 12 ‘pillars’: Institutions; Infrastructure; ICT adoption; Macroeconomic stability; Health; Skills; Product market; Labour market; Financial system; Market size; Business dynamism; and Innovation capability

⁷⁵ (WEF, The Global Competitiveness Report 2019 2019)

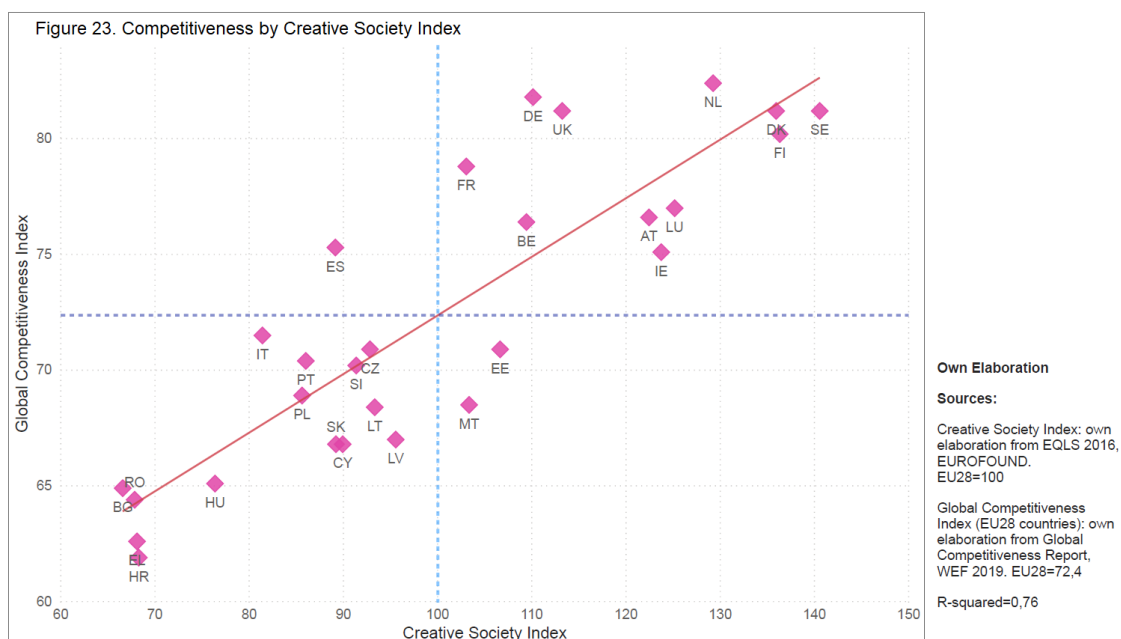
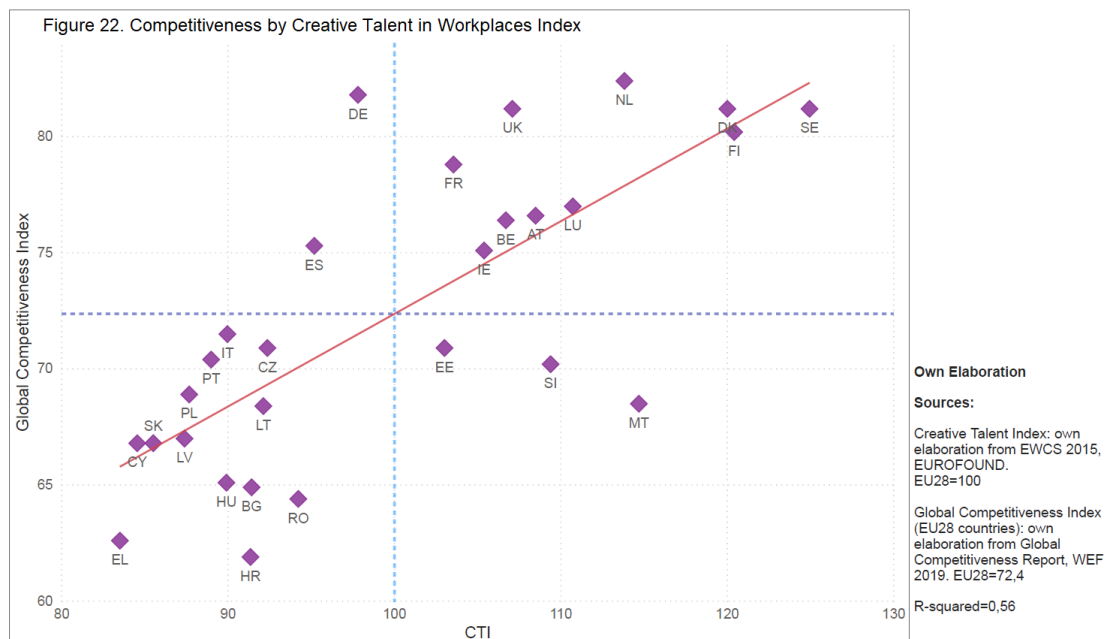
‘Technology governance has not kept pace with innovation in most countries, including some of the largest and most innovative’⁷⁶ (such as France or Italy). To reverse this situation, countries must improve (creative) talent adaptability which requires well-functioning labour markets that protects workers rather than jobs.

As we see from figures 22 and 23, there is a strong correlation between countries’ competitiveness and creativity at firm and society level. As in the case of CTI and CSI, Global Competitiveness Index shows geographical differences: countries such as ‘Sweden, Denmark and Finland have not only become among the world’s most technologically advanced, innovative and dynamic economies in the world, but are also providing better living conditions and better social protection, are more cohesive and more sustainable than their peers.’⁷⁷

Correspondingly, holistic and participative approach to policy making with the active involvement of all actors and stakeholders can considerably impact society’s equal opportunity, boosting creativity and economic dynamism and, consequently, competitiveness.

⁷⁶ Ibid cited in footnote 64

⁷⁷ (WEF, The Global Competitiveness Report 2019 2019)



g) Creative Society and education

Education is essential for human development and, therefore, for creativity. So the next step in the mapping we are performing on the contextual conditions to trigger creativity in the EU is to examine how education

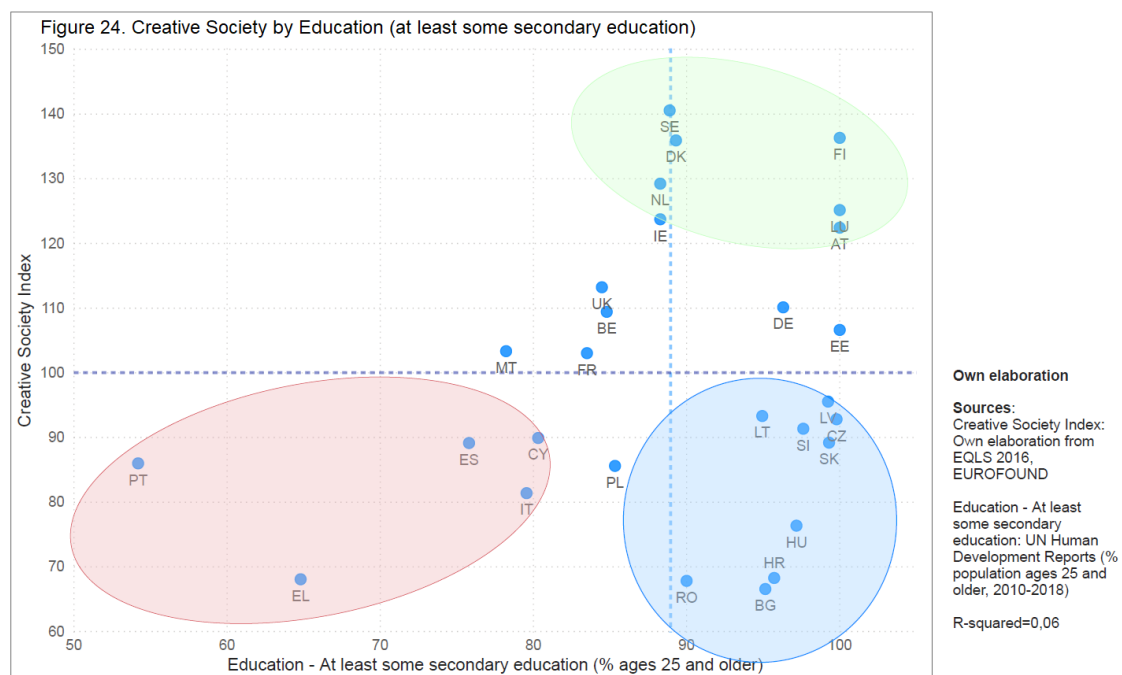
attainment (at least secondary education; tertiary education; and quality of education) in European countries relates to the creative society.

► Creativity and at least secondary education level

Figure 24 illustrates the relationship between creative society and percentage of population with at **least secondary education level**. Despite that the correlation between the two variables is not statistically significant figure 24 identifies **geographical differences** in terms of the attainment of at least secondary education level and the creative society:

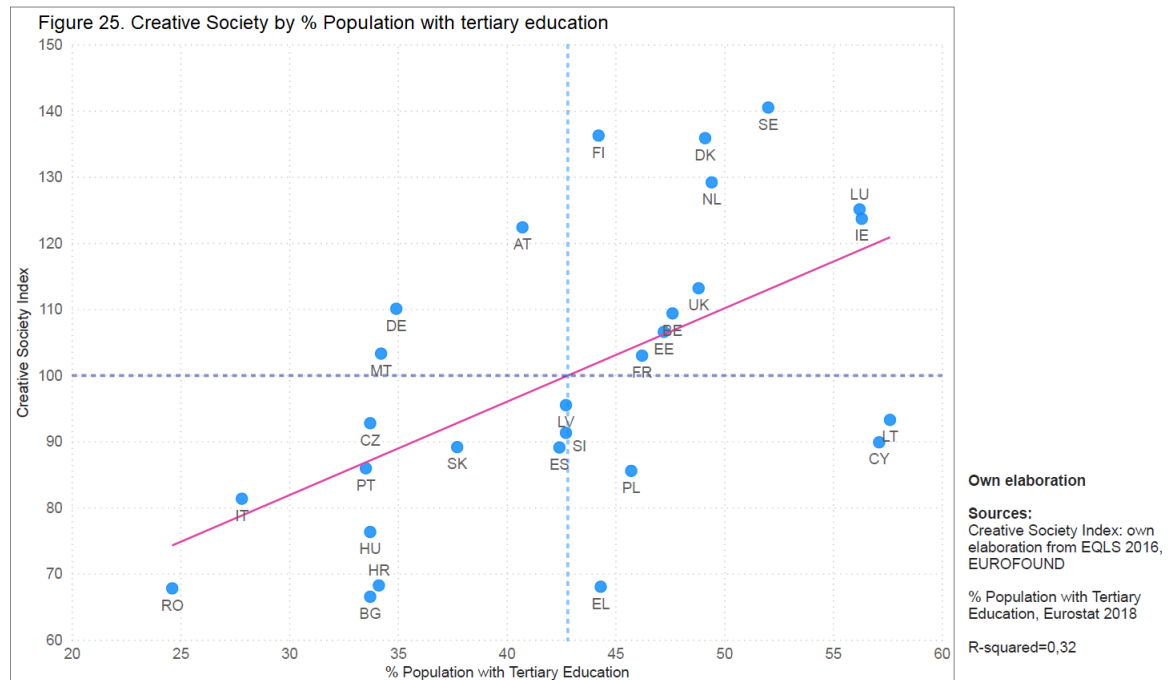
- On one side, the green oval englobes **Scandinavian and Western European** countries which have both the highest % of population with at least some secondary education and a high creative society index.
- The blue oval englobes **Central and Eastern European** countries with higher than average –except Poland- percentage of population with at least some secondary education, however lower than average creative society index. This might be due to the need to *modernize* or **update** the curriculum (although further research is needed to properly analyse the causes behind).

- And the red oval comprises **Southern European** countries which underperform in both dimensions, that is, have lower than EU average level of at least secondary education attainment (which it might indicate that the key challenge is to reduce the number of drop out from the education system); and lower than average CSI.



► Creative society and tertiary education level

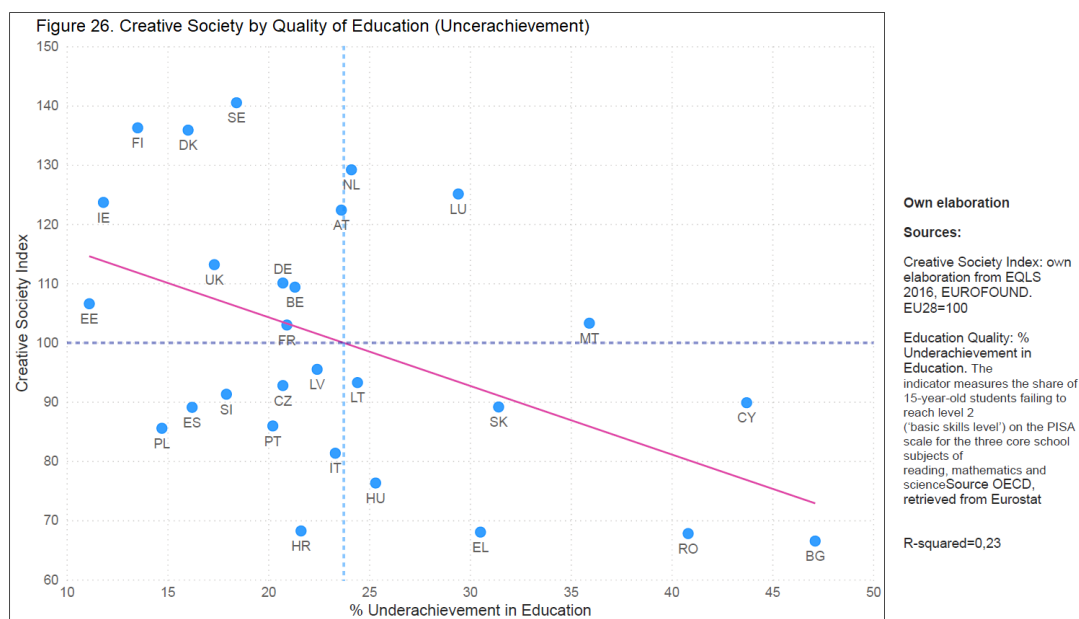
Figure 25 below shows there is a positive and statistically significant relationship between *creative societies* and the importance of third level education.



► Creativity and education quality

In order to assess the **quality of education** and how it relates to creative society, we rely on the indicator by the **OECD PISA report**, % of underachievement in education that measures the share of 15 years old students failing to reach level 2 (basic skills level) on the PISA scale for three core school subjects of **reading, maths and science**. As we can see in figure 25, there is a statistically significant relationship **between underachievement in education and lower level of creative society index**. It is also remarkable that all European countries analysed are above of 10% of underachievement in education, with advance economies such as Germany, Belgium and France with more than 20% of students aged 15 years old underachieving in basic level of reading, math and science. Although to analyse the (potentially) multiple causes of this data is beyond the scope of this study, it is important to emphasize that this indicates that **all countries**, regardless of the development

stage, can (and must) **improve the quality of the education provided and effectively *achieved* by students** in order to be able to successfully navigate the challenges of the Fourth Industrial Revolution⁷⁸ and untapped people's creativity.



⁷⁸ (WEF, The Global Risks Report 2020)

Box 3. Société Générale: opening up to the digital creativity ecosystem

This box illustrates a case from a global corporation in the financial sector that clearly exemplifies businesses' need and focus on attracting creative talent from the vibrant platform economy.

Olivier Laigle, Head of Societe Generale's Telecom Network Strategy, states that 'We are looking for partners with high value-added technologies capable of being daring and shaking us up in order to accelerate our innovation process and our agility'.

Societe Generale's digital transformation aims to opening up the organization to the digital creativity ecosystem, without distinguishing between actual staff members or *partners*, able to provide the bank innovation and added value. Olivier Laigle adds that 'To undertake its digital transformation, Societe Generale is notably gaining inspiration from the new economy: Internet giants, start-ups and fintechs'. 'We are continually seeking to improve the service we provide for our customers by deploying new solutions. We rely on talented new staff with substantial potential and on partners who want to revolutionise established patterns by focusing on the creation of *pure value (cursive added)*. It is by looking at new territories that we identify new avenues of innovation. So when a company recommends an attractive solution to us, we quite simply arrange a meeting with them, as was the case with EVA Group. It was a positive meeting, and we entrusted them with the migration of our fixed phone system to Skype. We are first and foremost looking for a high-quality team consisting of people with a genuine entrepreneurial approach, even if they are employees. Talented people need to know that there are fascinating challenges to meet with Societe Generale's IT teams.'

(Retrieved from: <https://www.societegenerale.com/en/meet-and-share/digital-creativity-ecosystem>)

h) Creativity and Digitization.

‘The convergence of digital technologies and the creative economy is having a disruptive effect on society in ways that would have seemed hypothetical. We are witnessing the emergence of a Fourth Industrial Revolution, where technology is more accessible, more widely used and more seamlessly integrated than ever’⁷⁹. **Digitization is transforming the very conception of creativity, how people, firms, and societies create, how the content is shared and the value created**⁸⁰.

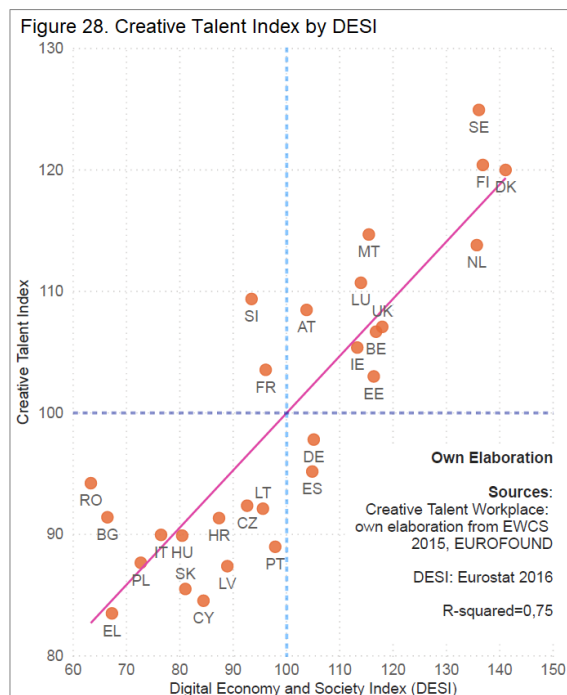
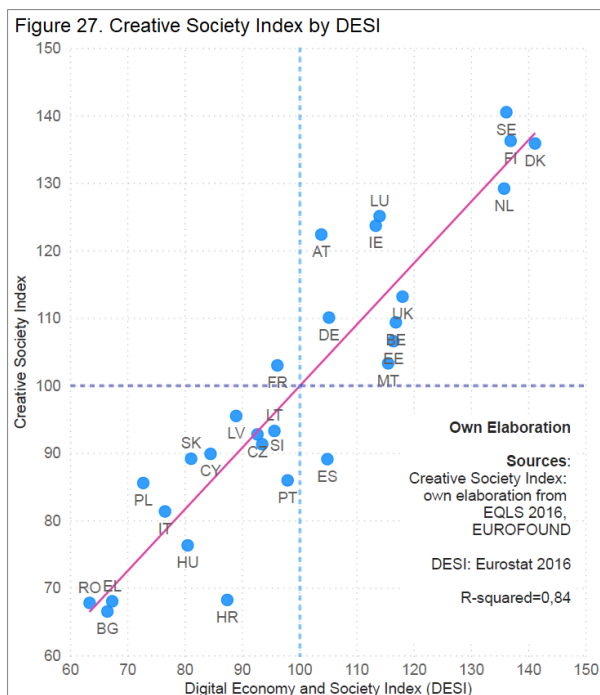
To analyse the relationship between creativity and digitization of the society and the economy, we rely on the **Digital Economy and Society Index** by Eurostat which we present in relation to both the Creative Society and Creative Talent indexes, as it is shown on the figures 27 and 28 below. We can see the statistically significant relationship between **highly digitized economies and societies and creativity both in workplaces and considered from a societal enabling environment and framework (CSI)**.

In both figures we can also identify how EU countries **cluster geographically** upon their digitisation-creativity indexes. We recognize four geographical areas: **Scandinavian countries, Western Europe, Southern Europe and Central and Eastern Europe**⁸¹.

⁷⁹ (WEF, Creative Disruption. The impact of emerging technologies on the creative economy 2018)

⁸⁰ However, how the value is captured is not determined by technology itself as it has been outlined in the previous section. Digitization also brings serious challenges to creativity in terms of intellectual property and the risk of commoditization of creativity.

⁸¹ These regions are further described and analyzed in the next point of this section.



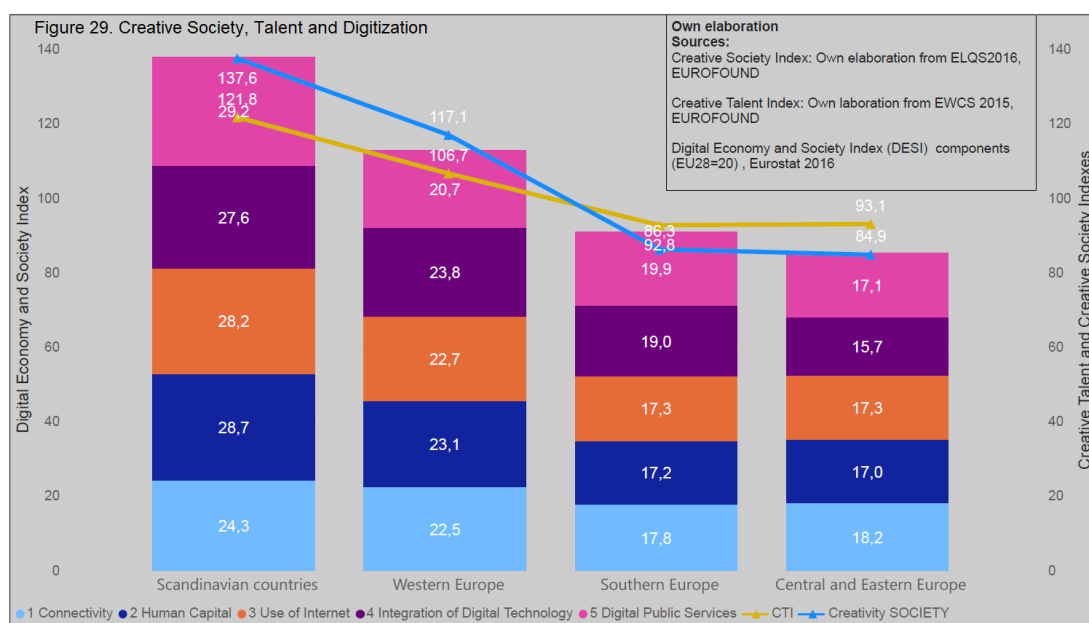
To further analyse these four geographical areas categorized above, **Table 3** and **figure 29** present Creative Society, Creative Talent and **DESI**, including its five components:

1. **Connectivity:** Fixed broadband, mobile broadband, fast and ultrafast broadband and prices.
2. **Human capital:** Internet user skills and advanced skills.
3. **Use of internet:** Citizens' use of internet services and online transactions.
4. **Integration of digital technology:** Business digitisation and e-commerce.
5. **Digital public services:** e-Government and e-health

Geographical area	1 Connectivity	2 Human Capital	3 Use of Internet	4 Integration of Digital Technology	5 Digital Public Services	Digital Economy and Society Index	Creative Talent Index	Creative Society Index
Scandinavian countries	24,3	28,7	28,2	27,6	29,2	138,0	121,8	137,6
Western Europe	22,5	23,1	22,7	23,8	20,7	112,8	106,7	117,1
Southern Europe	17,8	17,2	17,3	19,0	19,9	91,1	92,8	86,3
Central and Eastern Europe	18,2	17,0	17,3	15,7	17,1	85,3	93,1	84,9

Own elaboration

Sources:
Creative Society Index: Own elaboration from ELQS2016, EUROFOUND
Creative Talent Index: Own elaboration from EWCS 2015, EUROFOUND
Digital Economy and Society Index (DESI) (EU28=100); and its components (EU28=20) , Digital Economy and Society Index, Eurostat 2016

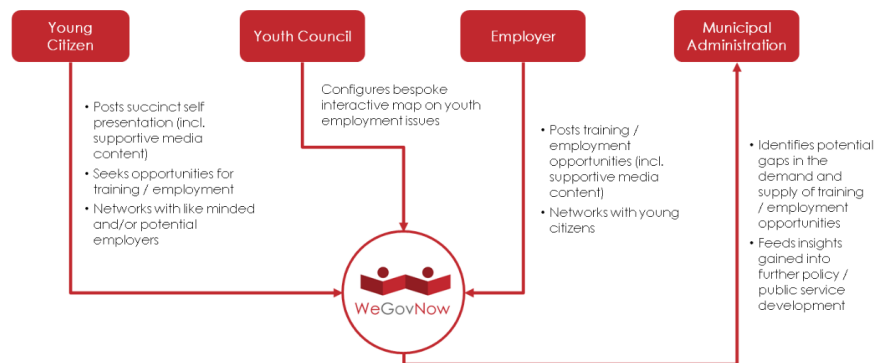


Upon examining Table 3 and figure 29, we can highlight:

- **Scandinavian and Western European countries** are ahead in both creativity and digitization, and in every of digitization's component (connectivity, human capital, use of internet, integration of digital technology and digital public services).
- **Central and Eastern Europe** countries have the lowest Digital Economy and Society Index and are behind Southern European countries in digitization (except for connectivity) and societal environment enabling

creativity (CSI); they particularly underperform on **Integration of digital technology (business digitization and e-commerce)** and **human capital**. In the light of the Covid19 outbreak, Central and Eastern Europe countries may need to accelerate the digitization of their businesses and workforce.

- **Southern European countries** particularly underperform in human capital and citizen's use of internet and online transactions.



Box 3. We Gob Now – Collaborative policy making and public services

The [WeGovNow](#) project is a research and innovation action funded under the Horizon2020 programme of the European Commission. It started in February 2016 and was completed in January 2019; however its digital tools and resources are available as open software for municipalities and researchers.

With its slogan “Towards WeGovernment: Collective and participative approaches for addressing local policy challenges” the WeGovNow project has been developed against the background of the ongoing transformation of the public sector. **A key objective of the project was to make a contribution to the transition from viewing citizens as mere customers of public services towards what has occasionally been called WeGovernment, considering citizens as partners.**

The WeGovNow platform integrates different civic participation functions to support communication and collaboration of local stakeholders with a view to addressing local policy challenges in a participatory manner, thereby involving local residents, civil society and the public administration. During the final project year, this platform has been piloted under day-to-day conditions in terms of a publicly available service in three municipalities: the City of Turin (IT) to co-designing of Dora park; the London Borough of Southwark (UK) tackling youth employment (picture above); and San Donà di Pave (IT) for energy efficiency; with more than **10.000 users registered across the three pilot cities.**

i) Creativity, sustainability and the SDGs⁸²

The international community acknowledges that the current way of living is unsustainable. The planet resources are limited. Global risks such as the ramping social inequality and climate change demand immediate responses from policy makers, business leaders and civic society actors to ensure survival of present and future generations.

In September 2015, the **United Nations General Assembly** adopted the [2030 Agenda for Sustainable Development](#) that includes **17 SDGs**. These 17 SDGs with their 169 targets present a universally agreed upon sustainable development vision for 2030; specifically, Goal 17 calls multiple stakeholders both from public and private sectors and civil society to partner for the Goals. Thus, for the first time, the private sector, including multinational corporations, was represented at the negotiation table and was involved in designing a global sustainable development agenda alongside political and civil society actors⁸³. SDGs recognise the inter-related nature of issues such as poverty, inequality, decent work, gender equality, and ecosystem conservation, as well as the necessity for all societal actors to jointly tackle them.

Across different sectors, from financial and insurance to energy, tourism, ICT, fashion, airlines, health care & beauty, amongst others, MNCs have signed up and committed to actively contributing to achieving the SDGs.

⁸² (Orville 2019)

⁸³ Apart from the examples cited in this section, this reports complies few examples of MNC taking actions towards tackling concrete SDGs (see report boxes).

Creativity is a pivotal asset for MNCs to achieve their mission internally (to boosting innovation), and outside (business targets, competitiveness and

Box 5. Unilever: Rethinking plastic packaging



MNCs have launched concrete initiatives to advance on the SDGs such as **Unilever's** [Rethinking plastic packaging – towards a circular economy](#) aiming to '**Moving towards a circular economy** – where we not only use less packaging but design the packaging we use so it can be reused, recycled or composted – will mean less plastic in our shared environment. It will also contribute towards the UN Sustainable Development Goal on Sustainable Consumption and Production (SDG 12), specifically target 12.5 on substantially reducing waste generation through prevention, reduction, recycling and reuse. It also contributes to achieving SDG 14, Life on Water, through target 14.1 on preventing and reducing marine pollution of all kinds'.

(corporate citizenship). MNC are implementing sustainability policies and deploying projects fostering creativity in the communities in which they operate to advancing their contribution to the SDGs. For example, Burberry established a foundation – The Burberry Foundation-as an independent charity, dedicated to using 'the **power of creativity** to drive positive change in (*their*) communities and build a sustainable future through innovation' in the frame of the SDGs.

► How is creativity relevant for the SDGs?

Creativity is at the heart of sustainability. The systemic and

indivisible approach of the **2030 Agenda** in areas such education, health, science, culture, communities, communication and information requires the promotion of **creativity** to brokering innovative policies, business practices and digital tools to tackle concrete SDGs Goals, favouring equal opportunities for all and reducing our ecological and carbon footprint significantly.

In the face of the current global challenges, creativity can be defined as ‘humanity’s ability to transform itself to tackling specific problems’⁸⁴. **Creativity and human talent is a kind of renewable resource**. It implies the capacity to transforming ideas, imagination and dreams into reality, blending tradition and innovation.

Creativity and sustainability are reciprocally interconnected and reinforce each other. Creativity drives society toward sustainability through its capacity for imagining and envisioning and activating people’s awareness about their impact and their action’s impact in the society and the environment; whereas **sustainability sparks and stimulates efforts to pursue the SDGs that are a trigger for unleashing creativity, in a multidimensional perspective**. This reciprocal and reinforcing relationship connects creativity with circular and green economy, generating a virtuous loop.

► Creative design and sustainability

Creative design plays an important role for sustainability. This explains the increasing demand for creative design of products, services, processes,

⁸⁴ Creativity and Sustainability

business models and policies to reducing, reusing and recycling (see box 5); harnessing models of sharing versus owning physical products –which potentially can optimize its usability, reducing environmental impact- and strengthening communities and societies’ commitment and active involvement in sustainability.

► **Creativity is also strengthening cities and communities.**

Urbanizations and cities’ scaling effects made them platforms for shaping positive change, serving as incubators and generators of creative solutions for sustainable development.

The [European Sustainable Cities Platform](#) -launched in 2016- provides an excellent example of the role of cities and platforms to create sustainable solutions improving mutual understanding, convivial and safe environment and greener cities. Supported by the City of **Aalborg, Denmark; the Basque Country, and ICLEI⁸⁵ Europe**, it focuses on the uptake of **The Basque Declaration⁸⁶**, which is the main outcome of the [8th European Conference on Sustainable Cities and Towns](#). ‘The **Basque Declaration** outlines new pathways for European Cities and Towns to *create*⁸⁷ productive, sustainable and resilient cities for a liveable and inclusive Europe’.

As we have seen in the cases above, **boosting creativity directly contributes to the advancement of the SDGs of the 2030 Agenda**. Hence, **creativity is a**

⁸⁵ ICLEI stands for Local Governments for Sustainability is an international organization of local governments and national and regional local government organizations that have made a commitment to sustainable development.

⁸⁶ (Sustainable Cities Platform 2016)

⁸⁷ Emphasis added

pivotal asset for sustainability for both public and private actors, across industries and geographies.



In particular, **Goal 8, Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**, whose Target 8.3 **specifically refers to creativity**: ‘Promote development-oriented policies that support productive activities, decent job

creation, entrepreneurship, **creativity** and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services’.

Promoting a **Creative Society**, moving from the conception of a creative economy restricted to the so called *creative industries*, from a business perspective; and from the *creative class* (demographic point of view) towards a society in which **everyone has the right and the opportunity to express, actively exercise and contribute with his/her unique creative identity and skills to the collective value creation and value capture** can significantly contribute to the advance in the pursue of SDGs.

‘In this respect, ICT, by facilitating access to information, can play an important role by contributing to entrepreneurship, job creation, employment, education

and training, economic productivity and growth, creativity and innovation, and financial inclusion⁸⁸.

Apart from SDG8, creativity can be a catalyst in the advancement of the following Goals:

- **SDG4 Quality Education:** as we have seen, one of the key characteristics of the creative societies is their correlation with lifelong learning or continuous (quality) education.
- **SDG5 Gender Equality and SDG10 Reduce Inequalities.** The inclusiveness and participation of everyone, without any discrimination in terms of gender⁸⁹, social class, nationality, or any other, in the creation of value (and sharing of outputs) contributes to the advancement on these Goals.
- **SDG11 Sustainable Cities and Communities.** Creative Societies promote greater participation in cultural life and civic engagement.
- **SDG12. Responsible Consumption and Production and SDG13 Climate Action.** As it is shown below there is a correlation between sustainability (including environmental vitality and recycled waste) and creative societies.
- **SDG17 Partnership for the Goals.** The advancement of a creative society necessarily requires a multi-stakeholders approach

⁸⁸ (Cantoni, Jereissati and and Lins 2019)

⁸⁹ In Use case 4. Expert contribution to Structured Dialogue between EU Commission and Culture Sector on Gender Balance is further elaborated the importance of gender balance for EU's creativity and cultural development.

(governments, citizens, corporations, businesses, NGOs, civil organizations, international organizations, among others); putting people at the centre of the policy making and business modelling.

► Creative societies and the advancement towards the SDGs' targets

Figure 30 below puts in relation Creative Society Index with the **Sustainable Development Goals Index**⁹⁰. The results confirm the view that social context and environment promoting creativity (high CSI) has a positive –and highly statistically significant- correlation with the advancement towards the 2030 Agenda and its SDGs.



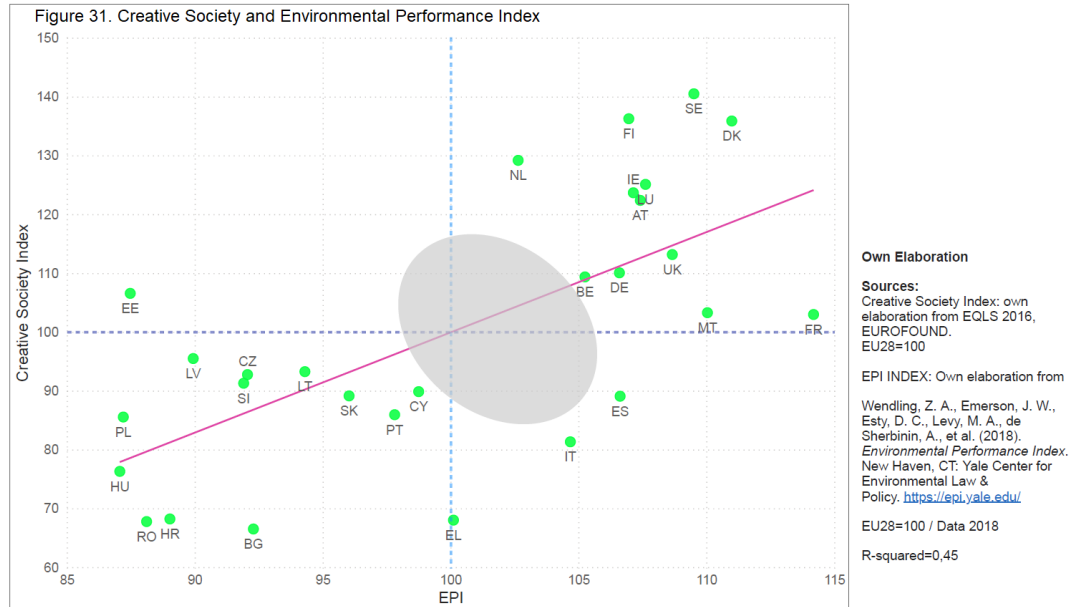
⁹⁰ (Sachs 2019)

► **Are creative societies *more* environmentally sustainable?**

For this analysis, we rely on the 2018 **Environmental Performance Index** (EPI)⁹¹. This metric provides ‘a gauge on a national scale of how close countries are to meeting established environmental policy goals. The EPI thus offers a scorecard that highlights leaders and laggards in environmental performance, gives insight on best practices, and provides guidance for countries that aspire to be leaders in sustainability’⁹². **Figure 31** illustrates the relation between EPI for EU28 countries with the CSI. Considering EU28=100 for both CTI and EPI, with the exception of Estonia, all of EU countries with higher than EU average CSI also perform above EU average in terms of EPI. The grey oval represents a **‘gap’ between ‘more sustainable’ and creative societies and societies underperforming in both indicators**. This might align with the fact that in creative societies, citizens may have higher level of participation in society and active living, which might correlates with **greater awareness, valorisation and care for their immediate environment** and for the general impact of their daily life on the climate (for example by using more public transport or cycling instead of cars; or buying local products, practicing sports and physical activities such as trekking, etc.).

⁹¹ The EPI ‘ranks 180 countries on 24 performance indicators across ten issue categories covering environmental health and ecosystem vitality (Wendling 2018)

⁹² (Wendling 2018)



Use Case 4. Expert contribution to Structured Dialogue between EU Commission and Culture Sector on Gender Balance



Women, despite the economically and technologically developed times we're living, are still underrepresented in the workforce, leadership and decision-making positions in CCS; they are also paid less than their male colleagues, and facing many challenges they should not be existing by now. The consequences of women inequality are negative not just for women themselves but for the whole society. The need to address these facts and come up with clear policy recommendations and actions proved that VoC focus this year on Gender Balance is necessary and timely. The first meeting of VoC -brainstorming session- took place in Goethe Institute in Prague on 4th-5th September 2019. During the first meeting, experts worked in four groups on different aspects and topics such as: role of public authorities, legislation, role of sectoral initiatives, measures to promote equality, education and training, gender stereotypes, representation and role models to provide recommendations for the Brainstorming report. The second VoC Dialogue Meeting took place at the Flagey in Brussels on the 6th November. It brought together again representatives from the 35 selected organizations for the VoC from several EU Member States, representatives from the European Commission and members of the Gender Equality group representing the EU Member States (OMC group)

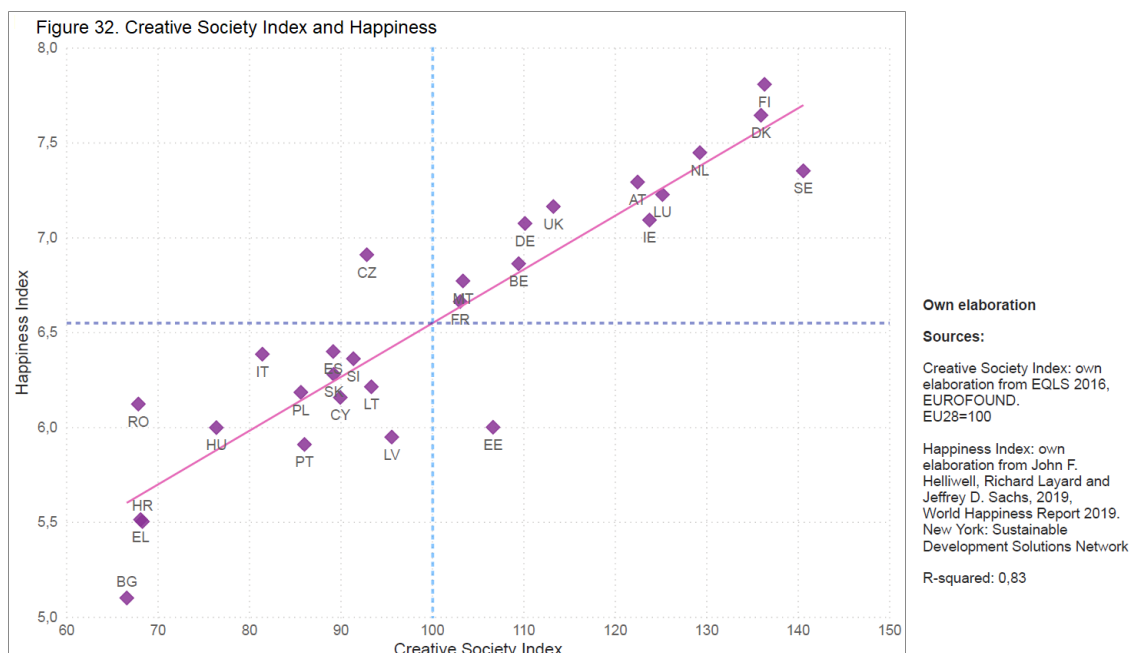
Economia Creativa, represented in both VoC Meetings by **Justyna Molendowska-Ruiz**, EC's Research and Communication officer, contributed to VoC Meeting on Gender Balance sharing our expertise in training and capacity building on key areas for women empowerment such as creative confidence, entrepreneurial skills and business modelling, communication and storytelling, innovative funding and leadership; we also disseminate the outputs of the meeting as well as tools and resources for women empowerment.

j) Are creative societies happier?

Creativity in a pragmatic sense is the ability to generate original and effective ideas that have (social) value. It is a *skill* that is highly demanded in the midst of the Fourth Industrial Revolution in workplaces across industries and sectors.

However **creativity** is not only a means to an end. In a subjective way, creativity is a source of **self-actualization**⁹³, **dignity**⁹⁴ and **fulfilment**⁹⁵ at **personal and professional level**⁹⁶.

In order to explore the relationship between creative societies and happiness we rely on the **World Happiness Index 2019**⁹⁷. Figure 32, confirms that there is a highly significant positive correlation between creative societies and happiness as measured by *World Happiness Report*.



⁹³ (Piechowski 1993)

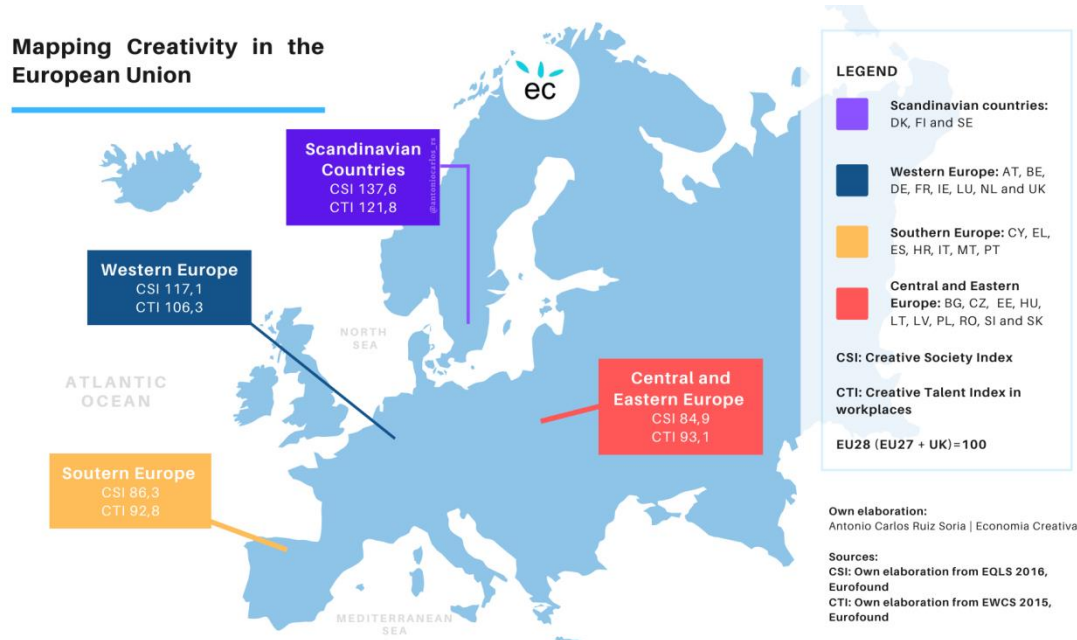
⁹⁴ See *Creativity and Dignity* on *Encyclopedia of Creativity* (Runco 1999)

⁹⁵ (Bujacz 2014)

⁹⁶ (Barsade 2005)

⁹⁷ (Helliwell, Layard and Sachs 2019)

2.2. Different stages in the transition to a Creative Society in Europe



Throughout the present analysis of both the CTI and CSI it has been surfaced clustered characteristics across countries in terms of education, labour market protection, equality, social mobility, digitisation, entrepreneurship and their relationship with creativity. Accordingly in this section we aim to explore in further detail the different stages in the transition to a *creative society* in the European Union from a geographical perspective. With this aim we cluster the following geographical regions⁹⁸:

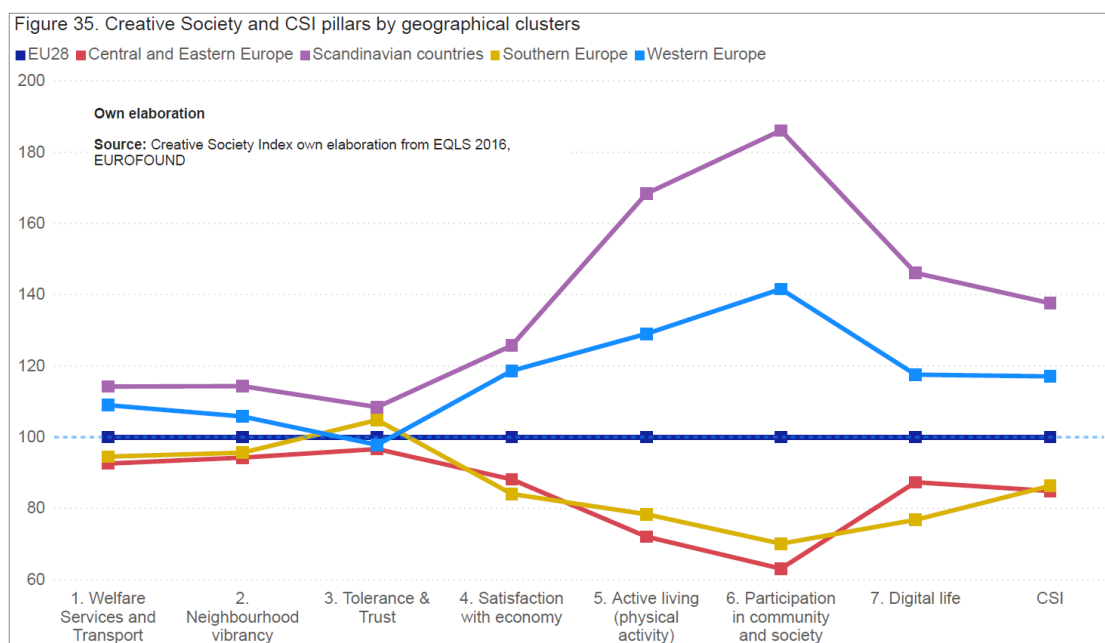
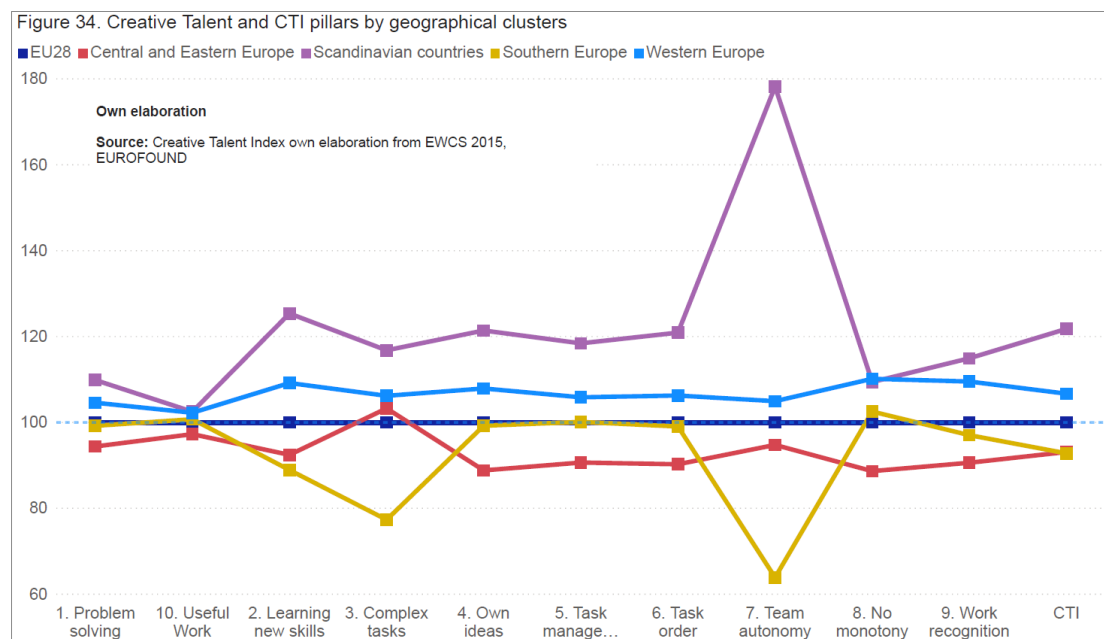
- **Scandinavian countries:** Denmark Finland and Sweden
- **Western Europe:** Austria, Belgium, France, Germany, Ireland, United Kingdom, Netherlands

⁹⁸ As we have already done earlier when analysing CTI, CSI and digitization. These regions' clusters aims only to better illustrate similarities and differences surfaced throughout the present study.

- **Southern Europe:** Cyprus, Italy, Luxembourg, Malta, Spain, Portugal, Greece
- **Central and Eastern Europe:** Croatia, Bulgaria, Slovakia, Slovenia, Czech Republic, Poland, Estonia, Lithuania, Latvia, Romania and Hungary.

The map above presents the CTI and CSI scores for the four geographies clustered. Figure 34 describes the CTI and its pillars for the four regions. Scandinavian region outperform for every creative talent pillar and, particularly, for team autonomy and learning new skills. On the other side, Southern European countries and CEE underperform in creativity in workplaces; CEE has a particular low score in team autonomy and complex tasks.

Figure 35 illustrates the CSI and its pillars in the different geographies we have grouped. Scandinavian has again the highest scores for every pillar. Western Europe also over-performs EU average for every pillar except for Tolerance & Trust. The greatest gap between regions outperforming (Scandinavian countries and Western Europe) and the underperforming (Southern Europe and CEE) in terms of environment for creativity is on participation in society and community (volunteering for social causes, training for professional purposes and training for not professional purposes, social activism), active living (physical activity); digital life and satisfaction with the economy.



a) Creativity relationship to different *continuous learning* speeds in the EU

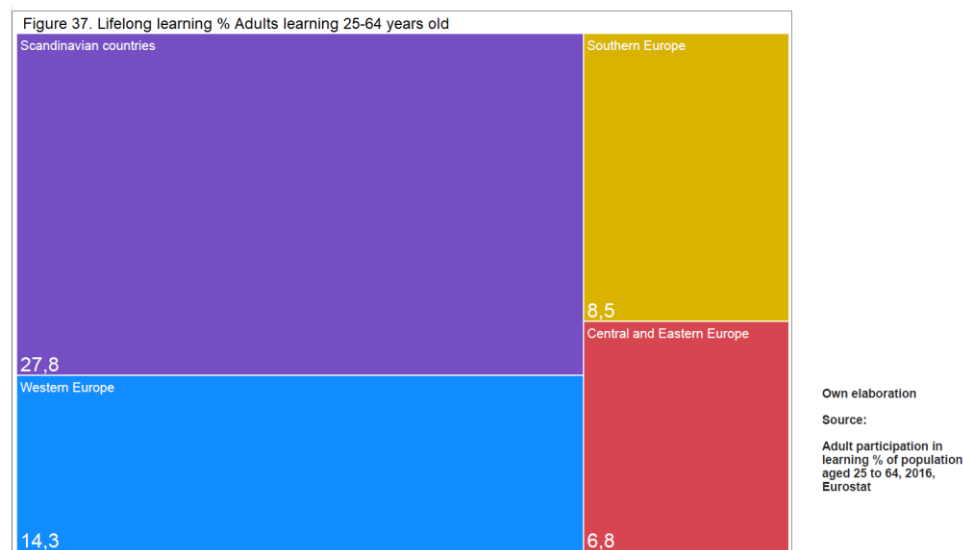
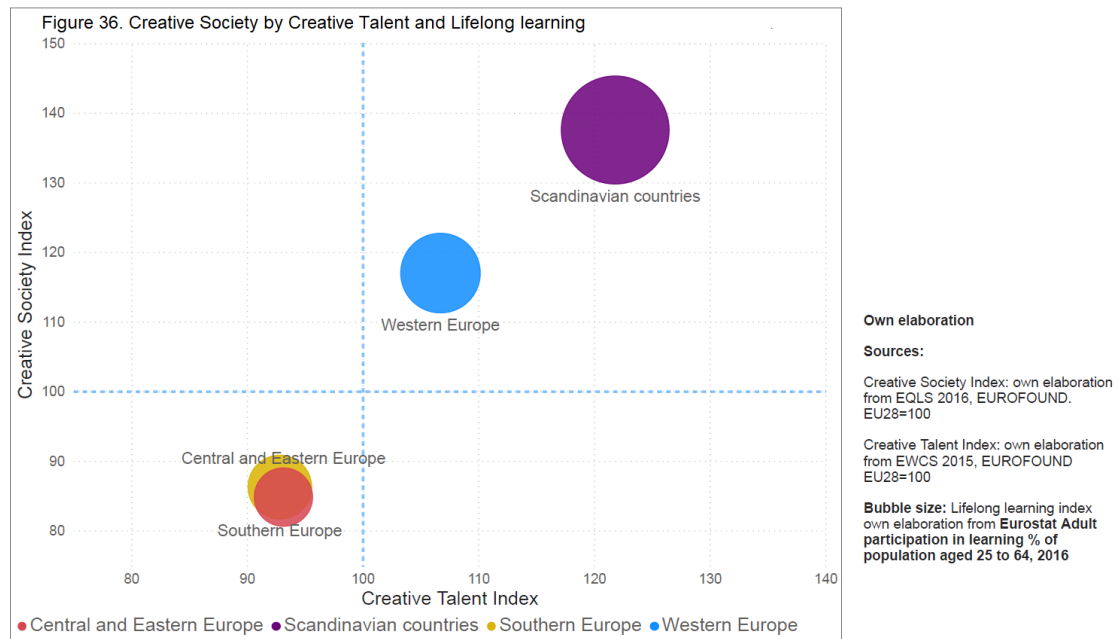


Figure 36 above puts in relation creative society and creative talent indexes for the four European regions we have grouped. It is clearly shown that Scandinavian countries lead in both CSI and CTI; followed by Western Europe; and then both Southern European Countries and Central and Eastern Europe are below EU28 average in terms of CTI and CSI.

In the face of the digitization and the current speed of change, **continuous learning** is a must in order to adapt, reskill and cope with an ever more complex and demanding construction of self-identity, professional career and work-life balance. In figure 36 the bubbles size represents the indicator of lifelong learning, that is, the percentage of adults (25 – 64 years old) engaged in learning as an indicator of continuous learning. The bubbles' size portraits that **continuous learning seems to be one of the drivers of creativity.**

Figure 37 (above) presents the different continuous learning *speeds* across the geographies analysed. **The percentage of adults engaged in lifelong learning is four times higher in Scandinavian countries than in Central and Eastern Europe.**

b) What factors drive creativity?

In order to analyse further the characteristics of the different stages in the transition to a creative society, Table 4 presents CSI, CTI and 23 socioeconomic, demographic and sustainability indicators⁹⁹ for the four geographical areas we are examining.

⁹⁹ In most of the cases, the indicators are presented indexed to EU28=100, therefore there are relative and not absolute indicators.

Table 4. Creative Society, Talent, Human Development, Digitization and Sustainability

Own elaboration. Sources: See technical appendix

N	Variable	Scandinavian countries	Western Europe	Southern Europe	Central and Eastern Europe
1	Creativity Society Index	137,61	117,05	86,32	84,87
2	Creativity Talent Index	121,79	106,69	92,81	93,12
3	Lifelong learning (% Adult learning 25-64 years old)	27,80	14,33	8,50	6,81
4	% Underachieving in Education: Reading, Math and Science (PISA)	15,97	21,14	28,30	25,22
5	Education (at least some secondary education) (% of population)	92,74	90,70	72,15	95,84
6	Education Tertiary (% of population)	48,43	47,51	39,88	39,40
7	NEET (% of population aged 15 to 29)	8,50	9,80	14,93	12,84
8	GDP PPS Index (EU28=100)	119,67	144,13	85,83	69,18
9	Global Competitiveness Index EU28=72,4	80,87	78,66	69,18	67,22
10	Human Development Index (EU28=0,887)	0,93	0,92	0,88	0,86
11	Employment in high/medium-high technology manufacturing, knowledge-intensive services (% of total employment)	54,07	50,23	41,70	39,57
12	Productivity per worker per hour 2016 Index (EU27 100; EU28 100,3)	111,93	129,31	91,83	70,45
13	Labour Market Protection as % of GDP*	3,37	2,87	1,93	1,04
14	Entrepreneurship Index 2019 (EU27=56,9; excl. Malta)	73,23	67,51	43,86	43,12
15	Digital Economy and Society Index (DESI) EU28=100	138,01	112,84	91,07	85,30
16	Inability to face unexpected financial expenses (%) 2018	24,20	27,11	36,58	38,45
17	Gini Index (EU28=100)	87,34	93,87	106,33	99,82
18	Income 40% 2018	23,33	21,90	20,55	21,12
19	Social Mobility Index. EU28=73,4	84,10	78,40	68,93	69,20
20	Urban population (% of total population)	86,90	80,45	76,07	64,06
21	Gender Equality Index (EU28= 67,4)	78,17	70,34	60,50	57,19
22	Happiness Index (0-10) (EU28=6,5)	7,60	7,10	6,19	6,06
23	Waste and recycling (% over municipal waste)	44,73	51,38	25,23	33,22
24	Environmental Performance Index (EPI Index, EU 28=100)	109,14	107,42	102,99	90,48
25	SDGs Index EU28=77,9	84,33	79,43	74,60	76,95

- Education.** Table 4 confirms the correlation between continuous education and creativity. Scandinavian countries, that lead in both CTI and CSI, have better scores in lifelong learning, quality of education (lower % of underachievement in basic skills: reading, math and science), tertiary education attainment and also the lowest level of youth not in education, employment or training. Apart from the gap in lifelong learning between the geographical areas with higher level of creativity (Scandinavian countries and Western Europe) and the ones with lower (Southern Europe and Central and Eastern Europe) that has been highlighted earlier, there is also a significant gap in terms of **education quality** (% of underachievement in reading, math and science). It is also remarkable the low level of population with at least secondary education in Southern European countries (72% vs. 96% in CEE), which might be due to early drop out from education.

- **Productivity.** In terms of productivity per worker per hour there is also a gap between the *more* creative geographies (Scandinavian and Western Europe) and the less creatives ones (Southern and CEE).
- **Knowledge intensive and skilled work.** To assess knowledge intensive and skilled work we rely on Employment in high- and medium-high technology manufacturing and knowledge-intensive services (% of total employment). Table 4 showcases the distance in terms of knowledge intensive and skilled work between regions with higher CSI and CTI (Scandinavian and Western Europe) and the ones with the lower is greater than 10 percentage points, and between best-worst performer almost 15 percentage points. This gap highlights the importance of creativity in the Fourth Industrial Revolution in the face of automation and the skills shift towards higher cognitive, reasoning and abilities tasks.
- **Labour market protection.** Scandinavian countries have three times higher level of labour market protection in comparison to CEE. As we have seen earlier, labour market protection is correlated with higher creativity in workplaces, facilitating boundaryless career paths required for knowledge mobility and firms innovation; and to provide a security net in the platform economy¹⁰⁰.
- **Standard of living.** As we could have expected, there is a correlation between creativity in workplaces and at societal level and higher standard of living measured by the GDP PPS. In this dimension there is

¹⁰⁰ Or as we have signpost in this report, a standing point.

also a considerable gap between the best performer geographical area, Western Europe (GDP PPS 144) and the bottom performer, Central and Eastern Europe (GDP PPS 69). On the other side, the inability to meet unexpected financial expenses indicator signposts that **in societies with higher level of precarious living conditions, creativity is lower.**

- **Human Development.** The Human Development Index captures, apart from a decent standard of living and education attainment, the importance of a healthy life. Table 4 data confirms that the higher is the CSI the higher is the human development index. Hence, **creativity emerges in societies with well-established welfare systems in which citizens have the (economic) opportunity to live a purposeful and healthy life with opportunities to develop their talent and potential.**
- **Entrepreneurship.** Table 4 clearly illustrates a positive relationship between entrepreneurship and creativity. In fact, there is a considerable gap in this indicator between the Scandinavian-Western and Southern-CEE regions. The higher the CSI and CTI are in a society, the higher is expected to be the entrepreneurial initiative.
- **Equality.** Table 4 presents a number of indicators related to equality: Gini index, income bottom 40%, social mobility, social mobility and gender equality. The data **confirms that creativity is positively correlated with equality in terms of income and opportunity** (social mobility and gender). It is important to highlight the higher income inequality in Southern European countries; and the big gap between

Scandinavian and Western Europe (higher level of creativity) and Southern and CEE (lower level of creativity) in (gender) equality.

- **Sustainability.** As it has been described earlier, creativity and sustainability are interconnected and reinforce each other. Table 4 confirms the view that **creative societies have a more sustainable way of living** (higher EPI index), **including higher rates of recycling waste** (% of recycled waste); and are in a more advanced stage in the achievement of the **SDGs** (higher SDG Index).



PART III

EU'S CREATIVITY

IN THE WORLD

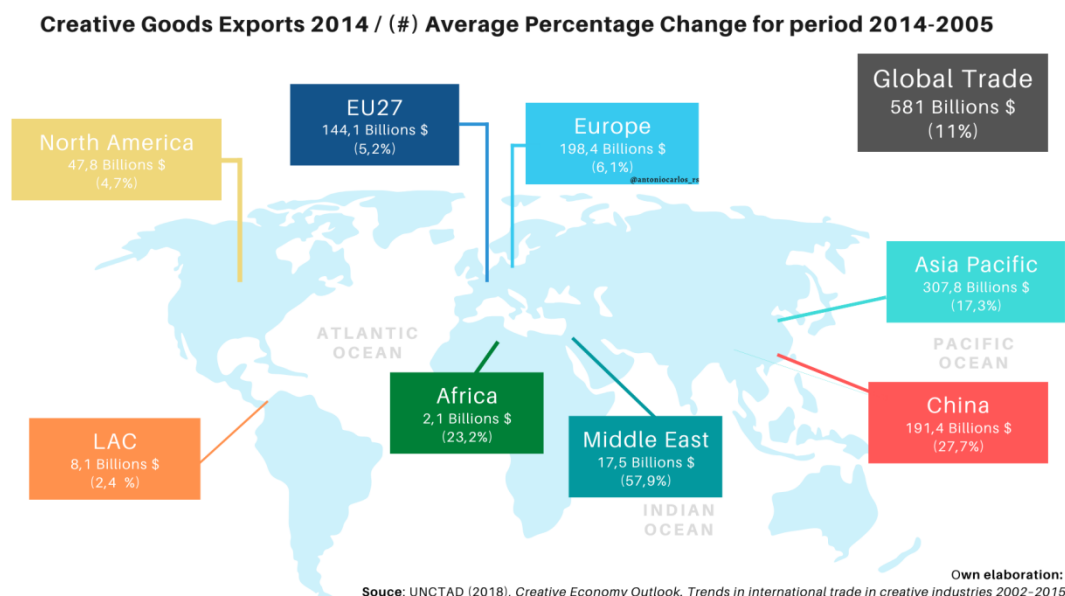


3. European Union's creativity in the World

In the previous two sections we have explored creativity in EU workplaces (CTI); and from the enabling environment stimulating the emergence of creativity at societal level (CSI). We have seen that **in the platform economy, creative talent face the super-competition of the whole world**. In consequence, EU creative talent has to be put in a global perspective.

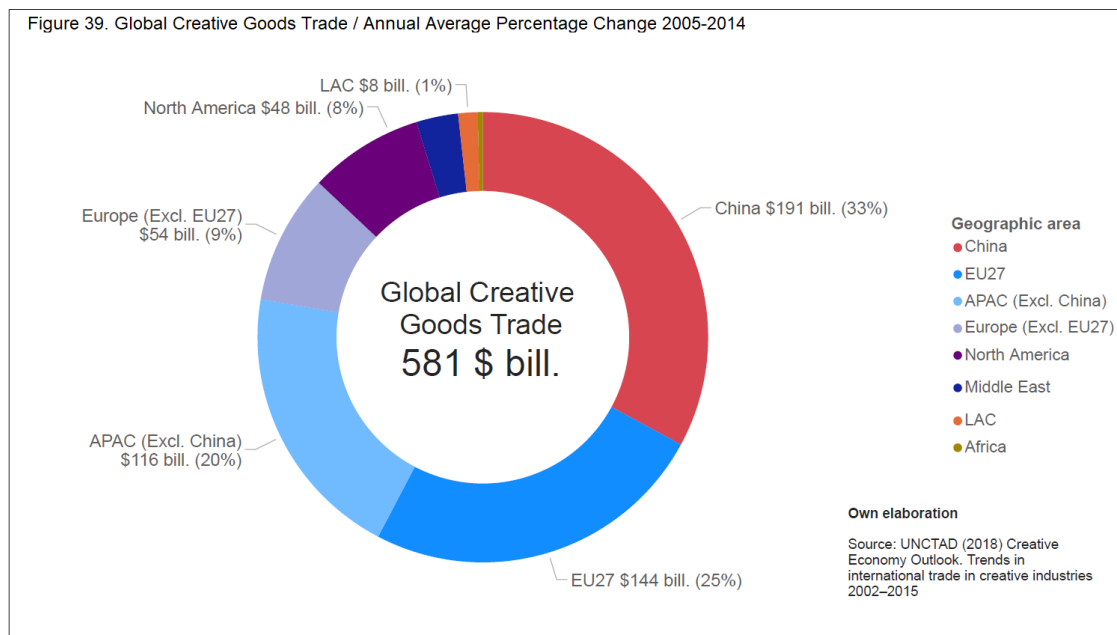
3.1. Is EU's creativity competitive in the multi-polar world?

Of course to provide answers to this question is beyond the scope of this study. However, we can succinctly refer to the creative goods international trade indicator from UNCTAD to help us shed some light into it.

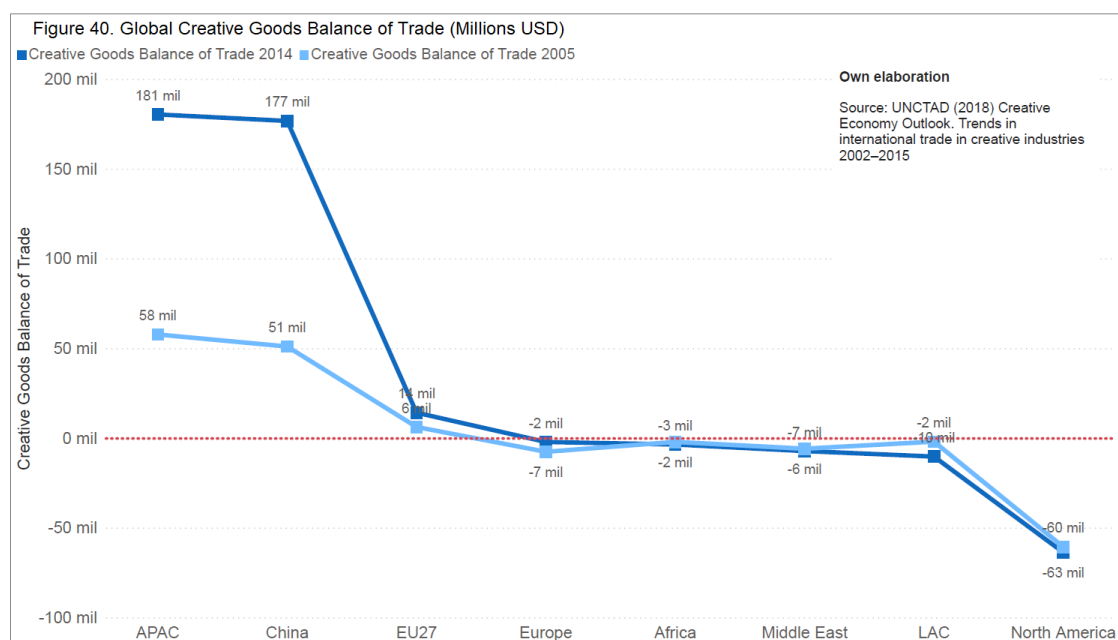


In 2014, the global exports of creative goods had a value of 581 billions of USD (map above). **China** led the creative goods exports (figure 29 below) with **33% of the total share** (191billions USD) and an average annual percentage

change in the period 2005-2014 of 27,7%; followed by EU27 (excluding UK) with 144 billions USD representing 25% of the total exports of creative goods, with an average growth of 5%.



In terms of creative goods balance of trade, **EU27 also followed China,** although with a considerable difference in terms of volume.



So, in terms of creative goods trade, the EU is the second power in the world behind China; however there is a big gap in terms balance of trade and exports, and exports growth rates.

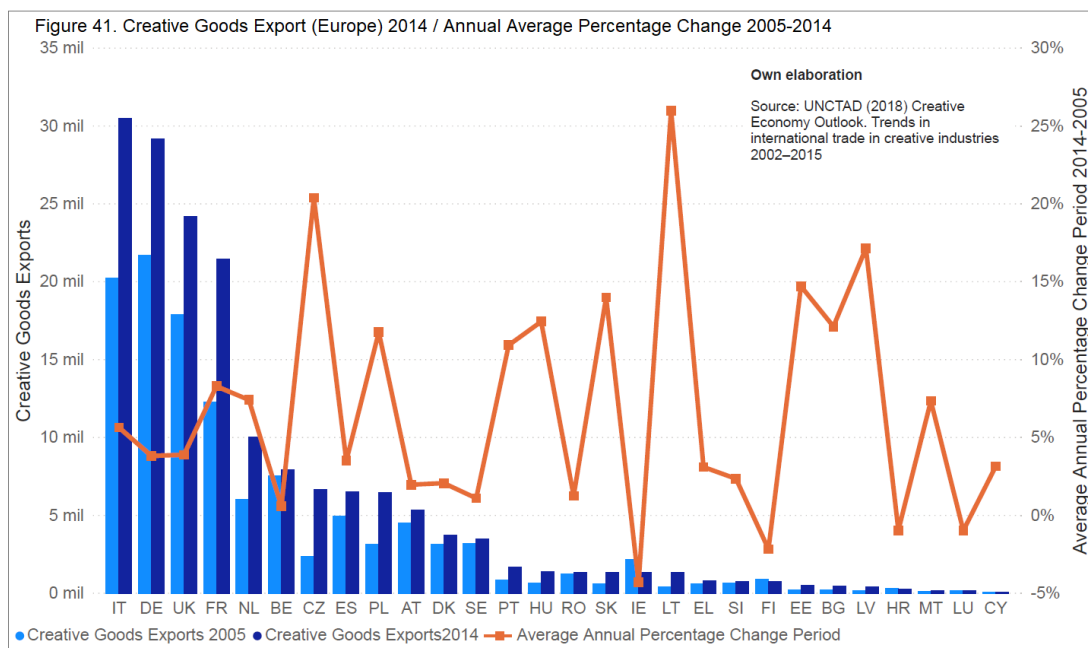
3.2. China, leading global creative good trade.

China has consistently moved toward a more creative, consumer-driven economy; it has increased accessibility to internet, unlock the pace of technology evolution, and has a booming population consuming digital media paving the way for the development of China's game industry¹⁰¹.

The '*China case*' is exceptional. Further research is needed to explore the implications of China's creative goods trade leadership to the EU in terms of challenges and opportunities for businesses, entrepreneurs and citizens.

Figure 41 below presents the creative goods exports of EU countries. In 2014 Italy overtook Germany as the leading EU country exporting creative goods (compared to 2005). It is remarkable the exports annual average growth between 2005-2014 of France, Netherlands, Czech Republic and Poland.

¹⁰¹ (UNCTAD 2018)



3.3. EU's creativity: from soft power to driver of sustainable development

European Union have already succeeded in projecting to the world an image of a shared space of cultural creativity and diversity; however it is the time to move beyond representation alone to play a leading role as creative power, engaging with the rest of the world through stances of mutual learning and sharing, promoting and enabling equal opportunity and fertile grounds for creativity to flourish both internally in the EU and in third countries, guaranteeing transparent and fair working conditions and fair trade throughout the whole creative value chain, in correspondence with EU's values and the SDGs. 'Adopting such stances would mean adopting a spirit of **global cultural citizenship** that recognises shared cultural rights as well as shared responsibilities, hinging upon access and participation for all in a framework of **cosmopolitan solidarity**'¹⁰².

¹⁰² (European Commission 2014)

USE CASE 5. Creativity Exchange: EU-Africa



Capacity building on crowdfunding to fund projects to achieve SDGs

Entrepreneurs and startups in Angola face the challenge to fund their projects and businesses. This challenge is even greater for entrepreneurs in cultural and creative sector.

We designed and delivered a week-long capacity building course on Crowdfunding, Strategy, Campaign Design and Implementation for creative entrepreneurs, Startups and NGOs, in Luanda, Angola, organized by **Spanish Embassy** in Angola with the support of **Brussels Airlines** CSR and the institutional cooperation of Ministry of Culture of Angola and the European External Action Service, EEAS, European Commission.

The workshop had the aim of facilitating the project creation and providing a methodology for planning, designing and implementing a crowdfunding campaign to get projects funded that participants will be able to replicate for themselves and within their networks to multiply the impact. Antonio Carlos coached and mentored participants to prototype their projects.

Very competitive and feasible projects have been created on key areas for Angola's development such as education, technology, tourism, energy efficiency, cultural heritage and creative industries. Participants have focused their projects on achieving concrete SDGs.

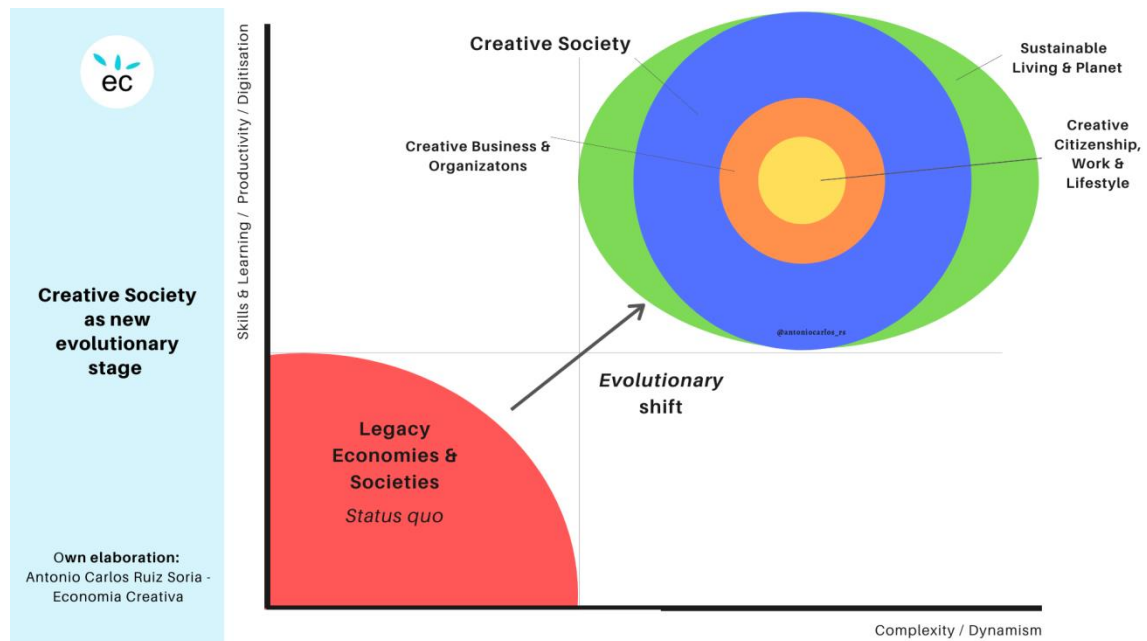
During the whole week it has been created positive environment and energy, team work spirit, lots of creativity and constructive feedback each time a group was presenting their work to the class. It has been a real crowd-sourcing experience! A wonderful creativity exchange EU-Africa!



PART IV
CREATIVITY
AS CATALYST TO
RECONFIGURING LIFE,
WORK AND
CITIZENSHIP

4. Creativity as catalyst to reconfiguring life, work and citizenship

4.1. The evolutionary shift towards creative societies



► The Fourth Industrial Revolution demands and shapes more than a skill shift.

Resilient, innovative and *advanced* societies, business, organizations and individuals share a common denominator: **creativity**; or the ability to adapt and actively create new ways to cope and get ahead in a world in constant change, with increasing challenges, dynamism and uncertainty. This unfolds a new paradigm of society and economy, **underpinning an evolutionary shift toward creative societies**. The infographic above illustrates this evolutionary shift:

- **Creative societies** are distinct from *legacy economies and societies* that represent the *status quo* (more details in the infographic below).

- **Creative citizens** are at the core (yellow circle) of creative societies.

Human creativity is the source of value that nurtures creative businesses and organizations (orange area), shaping together, with a multi-stakeholder perspective the creative society (blue area) in harmony with the planet (sustainable living and development –green area).

Creative citizens are the talent that firms need to prosper and lead in the market; they are the entrepreneurs, workers, content creators and the ones whose attention, time and engagement necessary contribute to the valorisation of the platform economy; they actively participate in policy making and social activism¹⁰³; they increasingly self-manage bureaucratic and administrative procedures digitally; their active and participative lifestyle has greater awareness and valorisation for cultural heritage¹⁰⁴ and environment, leading to sustainable living and **creative sustainability**, understood as proactive behaviours and attitudes to developing new ways of sustainable interaction with the (natural) ecosystem aiming at the same time for its protection and valorisation.

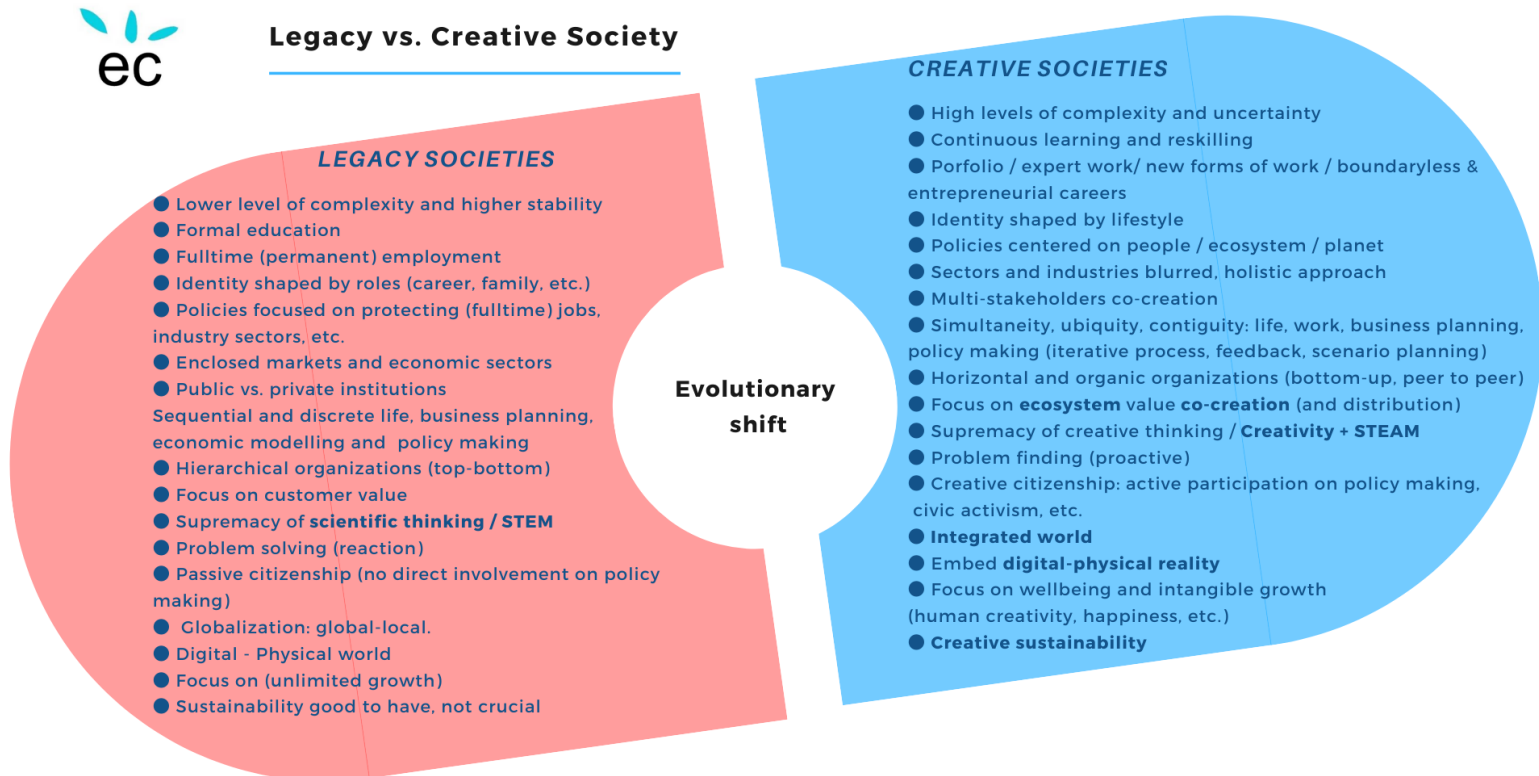
- **Creative business and organizations** characterized, as we have described earlier, for organizations' culture that spark and scale **creativity**; generating workplaces in which it is valued and praised to apply own ideas to no monotonous (therefore with lower risks of automation) and complex tasks; favouring individual and team autonomy;

¹⁰³ For example [Creative Citizenship](#) project implemented by Eurocities.

¹⁰⁴ In Ruiz Soria and Molendowska-Ruiz (2018) are compiled 12 good practices from 12 EU countries on innovative audience (citizens and tourists) engagement for putting in value cultural heritage from economic, social and environmental point of view.

self-management over the work to perform; stimulating constant learning of new skills; with the aim to get ahead in the marketplace by value-generating growth combined with prosocial motivation; embeddedness and contribution to the community and the social milieu (*corporate citizenship*).

4.2. Legacy societies vs. Creative Societies: a new paradigm



Own elaboration: Antonio Carlos Ruiz Soria | Economía Creativa

► **Creative societies are profoundly distinct from legacy societies; thus, they are not just a more advanced stage, but a new paradigm.** The infographic above presents key differences between legacy and creative societies:

- Legacy societies are characterized by lower levels of complexity and dynamism; by more stable institutions *ruled* by certain *inertia*; whereas creative societies are more dynamic and *activated*.
- In the creativity mapping in the EU performed, it has been surfaced the higher **social mobility, participation in society and community and**

entrepreneurship in societies with higher creative society and creative talent indexes (Scandinavian countries and Western Europe) vs. the ones with lower (Southern Europe and Central and Eastern Europe).

- **Continuous learning** has also been underlined as an essential characteristic of creative societies. Whereas in legacy societies education was structured in formal levels (primary, secondary, tertiary; graduate, postgraduate); then a transition from colleague or professional school to the career or workplace. In creative societies, while formal education is still essential, it does not conclude with the graduation ceremony. It is a continuous process through the lifespan. What applies for individuals it is also relevant for any other organization. Businesses in creative societies have to be in constant evolution, providing training to their staff and being able to nurture talent from and within the ecosystem.
- Creative societies are characterized by **boundaryless careers**¹⁰⁵ facilitated by the platform economy and enabled by policies focused on supporting people and equal opportunities rather than on protecting fulltime jobs and industrial sectors (like in the case of *legacy* economies).
- In creative societies the **planet** has been **integrated**¹⁰⁶, as well as **digitization, human and technology, real and virtual time**. *Contiguity, simultaneity* and *ubiquity* characterize human experiences, business planning and policy making in a *unified world* that does not distinguish

¹⁰⁵ It can also be argued that creative professionals may actually have preference for this type of career; however further research is due on this path.

¹⁰⁶ This planetary vision can also contribute to internalizing the environment and natural resources as part our lives, rather than external factors or just merely input in the production of goods and energy.

anymore between global and local –like in legacy societies. Given the continuous change, economic modelling and forecasting has been replaced by **scenario planning**¹⁰⁷ and **iterative processes of strategic thinking-deploying-feedback** for businesses and policy makers.

- Although roles such as profession or family status are still important, in creative societies identity is shaped by **(creative) lifestyles, purpose** and **commitment to (personal) principles and values** at individual and community level (volunteering for social, environmental, political causes, etc.) and in businesses (**corporate citizenship**).
- Creative societies are organized in **vivid ecosystems** orchestrated **through (digital) platforms**; these generates **multi-layered and multi-directional relationships amongst multiple actors and stakeholders** (in opposition to a linear directional relationships –often top-down- in legacy societies); while facilitating this interaction is the key for value co-creation, fair distribution of the value created is fundamental for levelling the play and guaranteeing social inclusion and economic sustainability.
- Though STEM and scientific thinking has been the driver of legacy societies, **creativity** is the value source of the new paradigm, the base of the educational pyramid that has to incorporate Arts and Culture to the curriculum (that is, from STEM to STEAM).

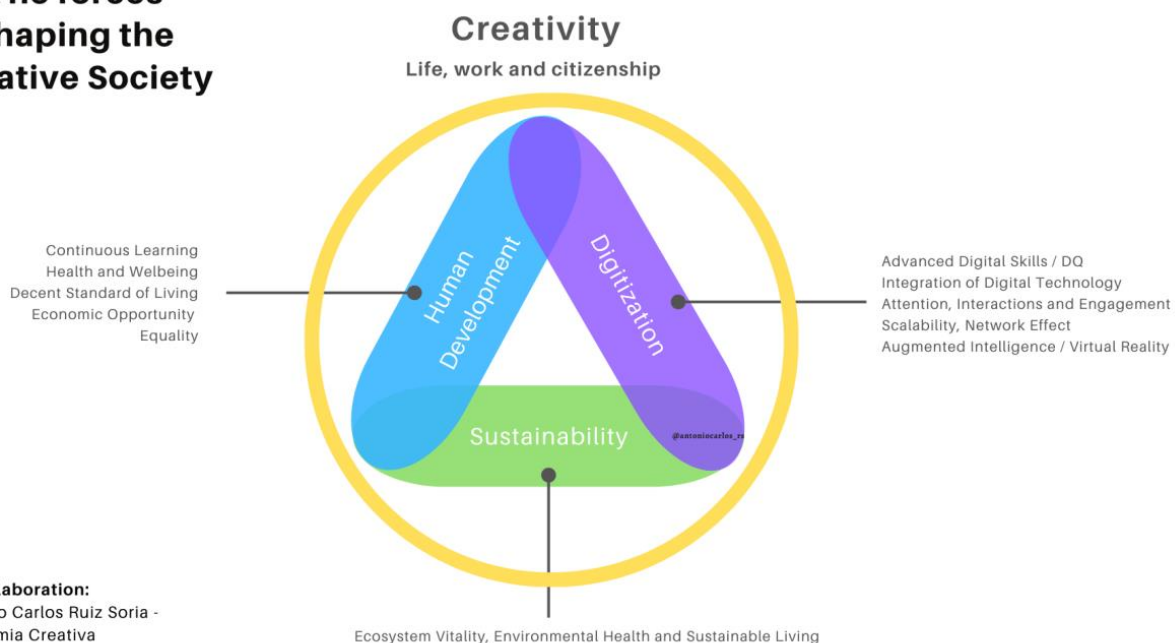
¹⁰⁷ A recent blog article on Applying creativity to scenario planning for business and economic uncertainty can be accessed here:
<https://economiecreativa.wordpress.com/2020/03/25/applying-creativity-to-scenario-planning-for-business-and-economic-uncertainty/>

- From the (almost) solely focus on economic growth (in legacy societies) to prioritizing citizens' **wellbeing** and a wider perspective for evaluating businesses value contribution to society and sustainability (prosocial motivation, corporate citizenship and MNC commitment to SDGs¹⁰⁸), that in creative societies is a crucial factor to tackle challenges such as climate change, environmental pollution and social inequality.
- We have seen that *creative societies* perform better on environmental indicators; have higher rates of recycling waste; and are more advanced in the achievement of the SDGs. Also how corporations are designing and implementing new processes to reduce and reuse packaging. Thus, creative societies characterized by the active role with which multiple actors (citizens, businesses, public sector) take on the responsibility towards the sustainability and the environment (*creative sustainability*).

¹⁰⁸ As we have seen in different examples and in the Use cases and Boxes in this study.

4.3. Three forces underpinning the creative society: human development,

The forces shaping the Creative Society



digitization and sustainability

► **Creativity is the catalyst for reconfiguring life, work and citizenship** unfolding an evolutionary shift to a new paradigm of society and economy, underpinned by three interlinked forces: human development, digitization and sustainability (as it is represented by the infographic above):

- **Human development.** *Human creativity* is the source of value and fulfilment in the Digital Age. Creativity does not appear in a vacuum; without compromising individual freedom and talent, we have seen the importance of the **social milieu** and the **collective nature of creativity**. As the national aggregate values from the different indicators related to human development have confirmed, **creativity is significantly correlated to continuous and quality learning, healthy life and**

wellbeing, and a decent standard of living, equality and social mobility. Hence, inequality is not only unfair but also inefficient for the economy, impeding entrepreneurship and business competitiveness.

Improving social mobility and equality can boost creativity; empower entrepreneurship, contributing to economic development and social inclusion. Given the fact that 1 in 3 EU citizens is unable to face unexpected financial expenses, together with the current uncertainty in the labour markets due to automation and the platform economy, universal basic income is a necessary instrument to guarantee decent standard of living and equal opportunity for all, levelling the playfield for creativity to flourish.

- **Digitization** is embedded in our lives and work. Provided a reconfigured version of the platform economy (as presented in Part I of this study), digitization favours new ways of living and working (remote work) that can help workers to conciliate their personal and professional lives with higher levels of flexibility (although, as it has been remarked earlier, taking in consideration also the risks of ‘*always on*’ career paths).

Creative talent is correlated with higher level of digitization (advanced digital skills and digital intelligence). Big data, automation and digitization contribute also to the exponential **scalability** of creativity, generating network effects and enormous value (that needs to be fairer distributed). Augmented intelligence and virtual reality open new windows to human perception, creativity and experimentation for

generating new solutions, products and services, processes and policies to tackle SDGs and enhance social inclusion.

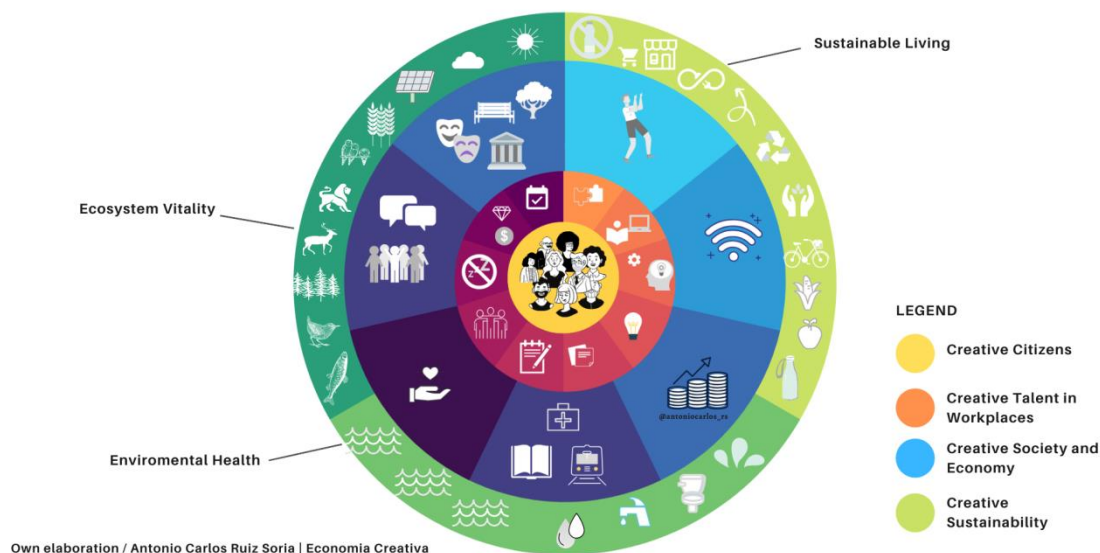
- **Sustainability.** The third force underpinning creative societies is sustainability. As we have described earlier, **creativity and sustainability are interrelated and reinforced each other. Creativity has to be in *harmony* with the natural ecosystem, harnessing environmental health and ecosystem vitality.** Citizens, businesses, public sector and civil organizations have to play an active role towards reducing their carbon footprint, reusing and recycling; and finding new ways of putting in value the nature through ***sustainable living***¹⁰⁹ and ***creative sustainability***.

¹⁰⁹ See EC Tool 20 Steps for Sustainable Living <https://economyacreativa.wordpress.com/20-steps-for-sustainable-living/>

Conclusion

► Creative Societies: reconfiguration of life, work and citizenship

Creative Society: Reconfiguration of life, work and citizenship



In the present report we have constructed a creative talent in work places index and a creative society index that are incorporated in the infographic above with **creative citizens** at the heart and embraced **by creative sustainability**.

The creativity mapping performed has analysed national aggregate in relation to EU28 mean value; this imply that the CTI and CSI we have constructed refer to relative and not absolute values. In consequence, not matter the more advanced level in a given country, all EU countries can further and constantly improve the environment to stimulate and scale creativity in all its envioning dimensions (personal and professional; for businesses and entrepreneurs; corporate; digital and offline; for communities, cities and societies; inside and outside the EU; and so on).

Human creativity is an unlimited resource that results from a co-created and a collective effort shaped by policy choices, business practices and peoples' active behaviours; it is not the aftermath of algorithms or the DNA characteristic of a particular territory or culture¹¹⁰.

In this research we have identified four stages in the transition toward creative societies in the EU that relates to different socioeconomic structures underpinned by policy choices. Scandinavian and Western Europe countries whose scores on both CTI and CSI are the best performers, characterized by higher levels of continuous learning and labour market protection; better of equality and social mobility levels; higher digitization (in business, public administration and citizens digital literacy and usage); and sustainability indicators –including being better align in the pursue of the SDGs.

Therefore, ultimately creativity is a society's choice, it depends of what a society values and is committed to in order to empower its citizens and all actors to spark and develop their creative potential to thrive ideas, people's fulfilment, business competitiveness and the community advancement towards a more sustainable and human way of living in harmony with the planet.

Recommendations for policy makers:

Creativity is a catalyst for the reconfiguration of life, work and citizenship.

Although creativity has already been prioritized by many cities, regions and

¹¹⁰ Creative Talent is also mobile in the EU internal market, see (European Commission 2020); and also through digital means.

countries as catalyst for economic development –mainly focused on stimulating the creative sectors and attracting the creative class, to thrive in the digital age creativity has to be emancipated from a singular sector, demographic or geography. This is the main challenge for policy makers: the **democratization of creativity**, so everyone regardless of his/her background has the opportunity to freely develop his/her creative identity and potential, contribute to value creation and receive a fair share of it.

As it has been shown, in the platform economy this necessarily requires a reconfiguration of the value capture distribution; securing a decent standard of living (a standing point) and economic opportunity for all. Policies and instruments conducting to these aims are:

- Focus on **human development** and fulfilment (wellbeing) rather than on *growth per se*:
 - Transformation of education systems towards **continuous learning (and quality)** with a holistic and transversal role of creativity. Moving from STEM to STEAM.
 - Policies for empowering **creative citizens**:
 - **Universal Basic Income.** This income is not only necessary to compensate for the risks that the platform economy has passed into workers (higher or lower skilled); but it is a right in itself necessary for democratizing creativity and compensating for the increasing co-creation

of value (in platforms, participative policy making, self-bureaucracy, etc.), that currently is unpaid labour¹¹¹.

- **Social security and health coverage to guarantee a long and healthy life for all.**
- **Equal opportunity and participation.**
 - Eliminating barriers to entrepreneurship (facilitating seed funding, eliminating bureaucratic barriers, etc.)
 - *Smart taxation*¹¹² and *smart contracts*¹¹³ to stimulate and facilitate fair transactions in the platform economy between entrepreneurs and businesses/consumers.
 - Facilitating access to education and reskilling throughout the lifespan.
 - Enabling (digital) ways of active participation of citizens in policy-making and decision-making
- Establishing businesses (and all economic actors) accountability through key performance indicators on social inclusion and equality.
- Guaranteeing global *fair trade* and fostering cosmopolitan cultural citizenship.

¹¹¹ 'Types of work that may end up being remunerated include communicative labour, cognitive labour, creative labour, emotional labour, crowdsourced labour' (Gros 2018)

¹¹² A view on smart taxation and its linkages to entrepreneurship can be found on *Brake on enterprise? Engine of growth? A smart approach to taxation for young entrepreneurs* (EY; G20 Young Entrepreneurs 2018)

¹¹³ (WEF, Creative Disruption. The impact of emerging technologies on the creative economy 2018)

- **Digitization:**

- **Reconfiguration of the value capture dynamic in platform economy.**
 - Eradicate monopolistic power dominance from platform providers and guaranteeing fair competition.
 - Review of intellectual property rights and developing innovative ways to reward digital content creation.
 - Evaluate a '**digital location tax**' for platform providers as compensation to the social creativity/social milieu (a *cyber council tax*)
- Guaranteeing cybersecurity and citizens' data privacy
- Digital Intelligence and skills. Accessible education and training on DQ and advanced digital skills for all.
- Facilitate entrepreneurs and SMEs integration of digital technology and digitization business strategies; smart taxation and smart contracts.

- **Sustainability:**

- Develop the linkages of creativity and green/circular economy as a catalyst for sustainable and inclusive development and the advancement on the SDGs.
 - Stimulate cross-sectoral innovation and creative design for new services, products, business models and policies to tackling challenges such as mobility, climate change, waste, energy, etc.

- Corporations and all economic actors to be accountable through KPI on their contribution to the SDGs.
- Raise awareness of sustainable living and *creative sustainability* actively involving citizens on playing a direct role on protecting and putting in value the natural environment.

Recommendations for business leaders.

Business leaders have to recognize that creativity is crucial, thus, creative talent has to be nurtured and develop throughout the entire organization, value chain and ecosystem. This research has shown the importance of well-established welfare policies and social support systems for businesses to have access to a more advanced supply of creative talent. Therefore, creative leaders would distinguish themselves from legacy leaders by their active role in which they spark and scale creativity inside and outside their organizations. Particularly MNCs (and platform providers) can play a protagonist role in the democratization of creativity. However they have to demonstrate real commitment through their corporate citizenship and sustainability policies and actions instead of vague efforts orientated more to public relations and brand image.

Business practices that can contribute to this objective are:

- Organizations' culture considering creativity crucial: assessing what means creativity to the particular organization's context and industry;

enabling organic and horizontal structures that facilitate information and ideas to flow with openness yet focus on a shared vision and commitment; connecting creativity to actual innovations (new products and services, processes, business models and organizations change).

- Stimulating, attracting and developing creativity and creative talent both internally, in the close environment and globally.
- Hiring based on merits. Encourage diversity of backgrounds.
- Providing access to work-experience and internships to less favoured backgrounds.
- Opportunities for continuous learning for staff and management (including trainings and workshops). Collaboration with (public-private) education institutions to facilitate access to continuous learning.
- Demonstrate transparency, real commitment and accountability for social inclusion and environmental sustainability.

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Technical Appendix

Methodological note to construct the Creative Society Index:

For the comparative analysis of the EU28 we draw on the Eurofound Working Conditions Survey 2015¹¹⁴, hereafter EWCS, which paints a wide-ranging picture of Europe at work across countries. This sixth survey, carried out in 2015, interviewed nearly 44,000 workers in 35 countries. Its findings provide detailed information on a broad range of issues: work organisation, work–life balance, health and well-being.

To construct the **Creative Talent Index (CTI)**¹¹⁵ we use national aggregates data from ten variables that capture key features of creative work activity, corresponding to 10 questions from the 6th EWCS. The table below illustrates the method to build the Creative Talent Index and each of its components.

Creative Talent Index= Average value Pillars (1,2,3,4,5,6,7,8,9,10)					
Source: EWCS 2015, Eurofound					
Pillar	Pillar Name	Question EWCS 2015 Eurofound	Answer	Value	Data transformation
1	Own Ideas	Q61i	Always	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
2	Complex tasks	Q53e	Yes	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
3	Problem solving	Q53f	Yes	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)

¹¹⁴ (Eurofound 2015)

¹¹⁵ See Appendix for more detailed information about how we have built the Creative Talent Index.

4	Task order	Q54a	Yes	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
5	Task management	Q54b	Yes	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
6	Learn new skills	Q53f	Yes	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
7	Team autonomy	Teamwork	2 Team with full autonomy	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
8	No monotony	Q53d	Does your work involve monotonous tasks? > No	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
9	Work recognition	Q89c	1 Agree	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
10	Useful work	Q61j	Always or most of the time	%	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)

Methodological note to construct the Creative Society Index:

To explore **the Creative Society in the EU¹¹⁶** we have constructed an indicator in a similar way that we have done for the Creative Talent in workplaces; however in this case based on the **European Quality of Life Survey 2016, EQLS 2016 conducted by EUROFOUND¹¹⁷**,

¹¹⁶ More on using international surveys to construct creativity indicators in (Villalba 2008)

¹¹⁷ (Eurofound 2016)

hereafter EQLS 2016. For the 4th EQLS 2016, 37,000 people were interviewed in 33 European countries¹¹⁸.

We have built the **Creative Society Index** on seven features that favour a **framework and environment** for **creativity** to flourish at societal level, based on questions from the EQLS 2016. The table below presents the method to construct the CSI and each of its pillars' components.

Creative Society Index=Average value Pillars (1;2;3;4;5;6;7)					
Source: EQLS 2016, Eurofound					
Pillar	Pillar Name	Question EQLS 2016 Eurofound	Answer	Value	Data transformation
1	Neighbourhood vibrancy				Average value (1a,1b=
1a	Access to culture	Q56c	Other		Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
1b	Access to green areas	Q56d	Other		Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
2	Welfare State (Education, Health) and transport				Average value (2a, 2b, 2c)
2a	Satisfaction with quality of education	Q58b	Mean	Mean	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
2b	Satisfaction with quality of health services	Q58a	Mean	Mean	Calculated EU28 average. Country value indexed to

¹¹⁸ 28 EU Member States and 5 candidate countries; however in this analysis is considered EU28

					EU28 base (EU28=100)
2c	Satisfaction quality of transport	Q4	Mean	Mean	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
3	Active living (Physical activity)	Q27c	Mean	Mean	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
4	Participation in community and society				Average value (4a, 4b, 4c, 4d, 4e, 4f, 4g)
4a	Volunteering society and community	Q29a	At least every month	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
4b	Volunteering culture	Q29b	At least every month	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
4c	Volunteering social movement	Q29c	At least every month	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
4d	Volunteering politics	Q29d	At least every month	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
4e	Participation social activities	Q27d	At least once a week	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
4f	Training professional purposes	Q28a	Yes	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
4g	Training no professional purposes	Q28b	Yes	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)

5	Satisfaction with the economy	Q32	Mean	Mean	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
6	Tolerance and Trust				Average value (6a, 6b, 6c, 6d, 6e)
6a	People can be trusted	Q33	Mean	Mean	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
6b	Tension young-old	Q34d	No tension	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
6c	Racial/ethnic tension	Q34e	No tension	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
6d	Sexual orientation tension	Q34g	No tension	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
6e	Trust legal system	Q35b	Mean	Mean	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
7	Digital life				Average value (7a, 7b, 7c, 7d, 7e)
7a	Use of internet no work	Q27b	At least once a week	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
7b	Found job online	Q103a	Yes	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
7c	Bought something	Q103b	Yes	(%)	Calculated EU28 average. Country value indexed to

	online				EU28 base (EU28=100)
7d	Public admin. online	Q103c	Yes	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)
7e	Use online facilities	Q103d	Yes	(%)	Calculated EU28 average. Country value indexed to EU28 base (EU28=100)

Source and methodological notes the variables and indicators used in this report:

Variable	Source	Data Transformation	Note / Comment
Education (at least some secondary education)	UN Human Development Reports (% population ages 25 and older, 2010-2018)		
Education tertiary	% population tertiary education level: Eurostat 2018		
Not in Education, Employment or Training, NEET	Young people neither in employment nor in education and training (% population 15-34 years old), Eurostat. Data 2018		
STEM (Science, Technology, Engineering and Math)	Eurostat, 2017	Own elaboration. STEM indicator is the addition of: % Education Tertiary Engineers manufacturing and construction; % education engineers communication technologies; and % Natural science, math and statistics	
Lifelong learning % ADULT LEARNING 25-64 YEARS OLD	Eurostat Adult participation in learning % of population aged 25 to 64, 2016		
% UNDERACHIEVEMENT IN EDUCATION	Underachievement in Education. The indicator measures the share of 15-year-old students failing to reach level 2 ('basic skills level') on the PISA scale for the three core school subjects of reading, mathematics and science. Source OECD, retrieved from Eurostat		
Labour Market Protection	LMP (%GDP) OECD 2016	Public unemployment spending as % of GDP + Public spending on labour markets as % of GDP	Data for BG, CY, HR, MT and RO not available.
GDP PPS Index	Eurostat 2016	Indexed to EU28 average=100	
Human Development Index (HDI)	UN Human Development Reports, 2018		

Organizational Innovations	European Company Survey 2013, EUROFOUND	The Organizational Innovation indicator has been built as the average value of new processes established from new products and services, new marketing campaigns and organizational change established since 2010, indexed to EU28=100	
Global competitiveness index	Global Competitiveness Index (EU28 countries): Global Competitiveness Report, WEF 2019.		
High Skills to Low Skills ratio (employment ratio) 2008-2018	UN Development Programme, Human Development Reports (2008-2018)		
Employment in high- and medium-high technology manufacturing and knowledge-intensive services	Employment in high- and medium-high technology manufacturing sectors and knowledge-intensive service sectors, % of total employment, Eurostat 2019		
Productivity per worker per hour 2016 Index (EU27 100; EU28 100,3)	Eurostat 2016 (EU27 100; EU28 100,3)	Indexed to EU27 average=100	
CAGR 2018 (FT100)	CAGR: FT 1000 Fastest Growing Companies in Europe 2018 - 2015	From the FT 1000 we have selected the top 500 companies and then calculated the national aggregate for the CAGR	
ENTREPRENEURSHIP	Entrepreneurship Index: Zoltan et al (2019) Global Entrepreneurship Index 2019	Calculated EU28 average; indexed to EU28 average=100	
NON ACTIVE CARING	% of inactive population aged 20 to 64, Eurostat 2018		
Inability to face unexpected financial expenses 2018	Inability to face unexpected financial expenses: EU SILC Survey, Eurostat. Data 2018		

GINI INDEX	UN Human Development Reports, Gini 2016	Indexed to EU28 average=100	
INCOME bottom 40 % 2018	Eurostat 2018		
Social Mobility	World Economic Forum, WEF, The Global Social Mobility Report 2020		
% Urban population (World Bank - 2018)	% Urban Population: World Bank, 2018		
Happiness Index	John F. Helliwell, Richard Layard and Jeffrey D. Sachs, 2019, World Happiness Report 2019. New York: Sustainable Development Solutions Network	Calculated EU28 average; indexed to EU28 average=100	
Gender Index	Gender Equality Index: EIGE, Gender Equality Index 2019 (data 2017)		
EPI INDEX	Wendling, Z. A., Emerson, J. W., Esty, D. C., Levy, M. A., de Sherbinin, A., et al. (2018). Environmental Performance Index. New Haven, CT: Yale Center for Environmental Law & Policy. https://epi.yale.edu/Data 2018	Calculated EU28 average; indexed to EU28 average=100	
WASTE RECYCLING RATE 2017	(%) over municipal waste, Eurostat, 2017		
SDGs Index	Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G. (2019): Sustainable Development Report 2019. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN). EU28=77,9		
1 Connectivity	Digital Economy and Society Index, Eurostat 2016		
2 Human Capital	Digital Economy and Society Index, Eurostat 2016		
3 Use of Internet	Digital Economy and Society Index, Eurostat 2016		

4 Integration of Digital Technology	Digital Economy and Society Index, Eurostat 2016		
5 Digital Public Services	Digital Economy and Society Index, Eurostat 2016		
DESI	Digital Economy and Society Index, Eurostat 2016		
Global Creative Goods Exports 2014	UNCTAD (2018) Creative Economy Outlook. Trends in international trade in creative industries 2002–2015		
Balance of Trade	UNCTAD (2018) Creative Economy Outlook. Trends in international trade in creative industries 2002–2015		
Annual average percentage change 2005-2014	UNCTAD (2018) Creative Economy Outlook. Trends in international trade in creative industries 2002–2015		

