



UNECE TEAM OF SPECIALISTS ON INNOVATION AND COMPETITIVENESS POLICIES

Policy Seminar:

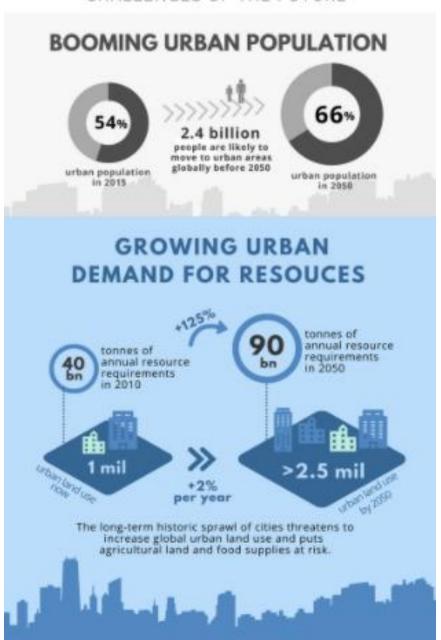
Leveraging Innovation for the Circular Economy

Cultural heritage adaptive reuse as a cultural entreprenurship contribution to the circular agenda.

Monday, 1 November 2021 15:00 - 17:00 CET

THE WEIGHT OF CITIES

CHALLENGES OF THE FUTURE



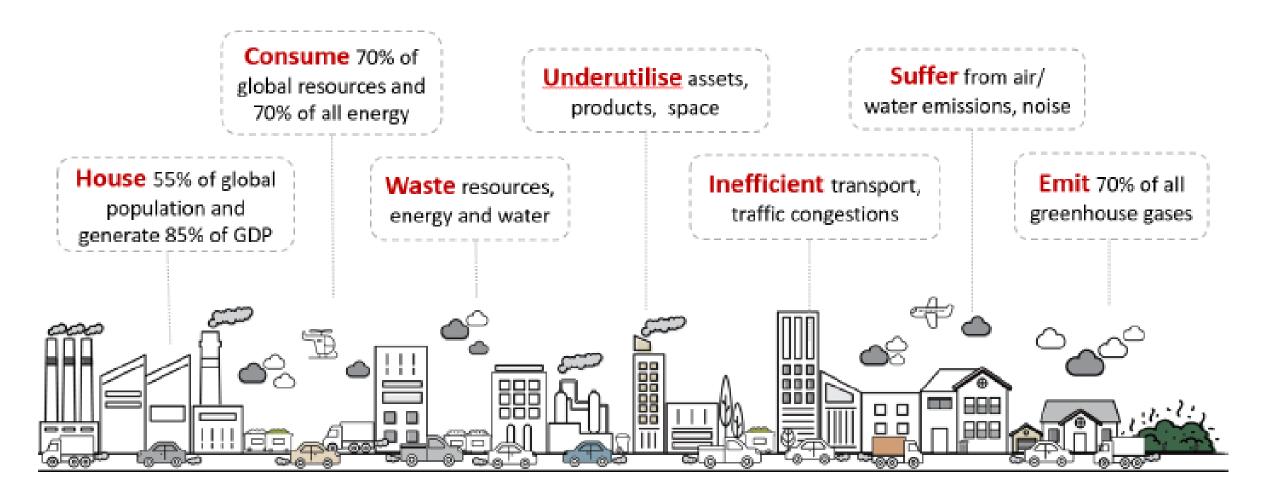
The weight of cities

"The high demand for such raw materials will far exceed what the planet can sustainably provide.

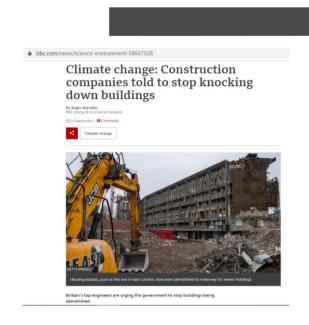
In addition, the long-term historic sprawl of cities by 2 percent per year threatens to increase global urban land use from just below 1 million km2 to over 2.5 million km2 by 2050, putting agricultural land and food supplies at risk."

Source: United Nations Environment Programme (2018), The weight of cities. Resource requirements of future urbanization.

State of the art



Source: European Investment Bank (2021), the 15 circular steps for cities, second edition, report https://www.eib.org/en/publications/circular-economy-15-steps-for-cities-second-edition







11 June 2021

Field Report

Construction & building waste accounts for approximately 25% - 30% of all waste generated in the EU



rs Supporters I

0/05/2021

What if...we stop demolishing buildings and reinvent them instead?



lade Purdy, Senior Engineer, AKTII

Jade Purdy, Senior Engineer at AKTII questions how can we renovate and adapt existing building stock for mixed-use without demolition?

Well, nothing would change. And I mean nothing. We would still see the appearance of new buildings and we would still see the transformation of the built environment to meet our everchanging needs. But the fabric of

those buildings would be just as they were, only reinvented, refreshed. A successful renovation and even major refurbishment transforms a building and makes an immediate impact on carbon emissions by avoiding the production and transportation of new construction materials.





Rafael Gomez-Moriana / 2018/04/13 /

I'm a walking nightmare, an arsenal of doom I kill conversation as I walk into the room

I'm a three line whip

I'm the sort of thing they ban

I'm a walking disaster I'm a demolition man

(Demolition Man, by Sting)

Why is the demolition of old buildings and their replacement by new ones still widely seen as a sign of "progress"? Why is transforming an existing structure considered somehow "less

Europe thrives to become the 1st climate-neutral continent by 2050

An economy with netzero greenhouse gas emissions Reduce climate change 80% by 2050 (from 1990 levels)

Reduce raw material consumption (-50% by 2050)

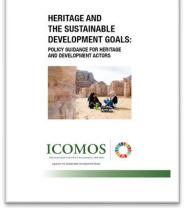
The Weight of Cities impels us to design a new development framework which embraces low-carbon, resource-efficient & inclusive cities

The circular economy
(CE), aims to change
how Europeans consume
and produce materials
and energy

Green Deal calls for circular"renovation wave" Renovation Wave Strategy Oct 2020

Meeting the needs of all within the sustainable limits of our planet!





Source: https://habitat3.org/the-new-urban-agenda/

Adaptive Reuse of
Cultural Heritage
abandoned and/or
underused assets
actualize the Circular
Economy

Source: Foster, G, & Saleh, R., (2021). The Circular City and Adaptive Reuse of Cultural Heritage Index: Measuring the investment opportunity in Europe. Resources, Conservation & Recycling, 175, 105880.

https://doi.org/10.1016/j.resconrec.2 021.105880 1-Adaptive Reuse of Cultural Heritage contributes to extending the dynamic lifespan of heritage and slowing the extraction of natural resources and energy for new buildings (Dewiyana et al., 2016; Gravagnuolo et al., 2017; Plevoets and Van Cleempoel, 2019; Thornton, 2011). It also contributes to reducing construction and demolition wastes from the building sector.

2-Adaptive Reuse of Cultural Heritage projects can anchor social and economic hubs in cities and actively revitalize them by capitalizing on their local authenticity (Acri et al., 2019; Bullen and Love, 2011; Kee, 2019; Strumiłło, 2016). As Europe's demographics change over time and cities continue to grow, city managers consider using built heritage for housing and other uses to accommodate future generations.

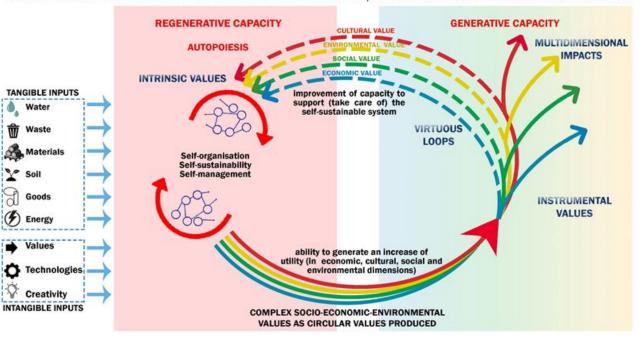
3-Adaptive Reuse of Cultural Heritage buildings "preserve social, cultural and emotional values" (Abastante et al., 2020), an argument also made in the Cultural Heritage Counts for Europe Report (CHCfE, 2015). Quality of life, social cohesion, and social sustainability are entwined with the built environment (Dempsey et al., 2011; Roszczynska-Kurasinska et al., 2021).

4-Refurbishing urban Cultural Heritage buildings (which may have energy efficiency and thermal comfort challenges) is a critical path towards climate change mitigation and adaptation (Foster, 2019; Napoli et al., 2020; Potts, 2021). The European Union's (EU) ambitions regarding climate change and energy efficiency targets will be difficult to reach without urban cultural heritage buildings.



H2020 project CLIC framework

THE CIRCULAR TERRITORIAL CLUSTER: REGENERATIVE, GENERATIVE AND SYMBIOTIC CAPACITY



THE REUSED CULTURAL HERITAGE AS A LIVING SYSTEM

THE RELATIONAL LANDSCAPE/CONTEXT WITH A RECIPROCAL SET OF INTERDEPENDENCES

THE SYMBIOTIC CAPACITY

https://www.clicproject.eu/

A circular city implements the circular economy in the spatial «landscape» dimension:

It <u>reuses and regenerates</u> abandoned sites and buildings, creating <u>new opportunities</u> for <u>businesses and</u> enhancing historic places attractivene ss for new economic, social and cultural activities.

Cultural heritage adaptive reuse enables local communities create new sense and meaning from and for historic places, making attractive the areas in decay, regenerating the historic urban landscape.

Cultural heritage / landscape adaptive reuse, with its symbolic power, can trigger the regeneration of communities' bonds, stimulating sense of ownership, creativity and responsibility.



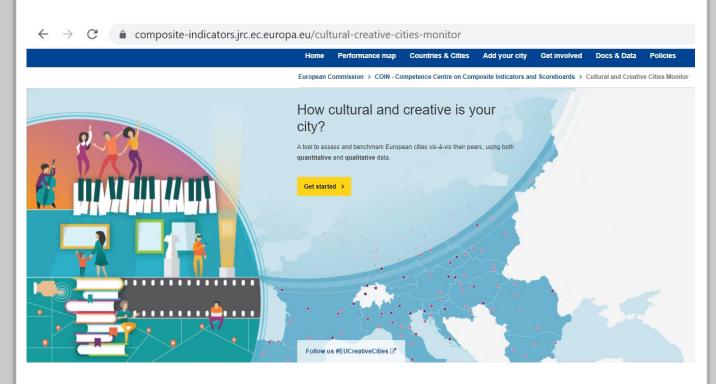




The Cultural and Creative Cities Monitor covers 190 cities in 30 European countries (the EU-27 with Norway, Switzerland and the United Kingdom):

- 98 cities which have been European Capitals of Culture up to 2019, or which have been shortlisted to become an European Capital of Culture up to 2023;
- 33 UNESCO Creative Cities (up to 2017 winners) excluding overlap with the European Capitals of Culture;
- 59 cities hosting at least two international cultural festivals running until 2018 or 2017 for biennal festivals.

The Cultural and Creative Cities Monitor



Source:

https://composite-indicators.jrc.ec.europa.eu/cultural-creativecities-monitor

How circular are the cities ranked by the European Cultural and Creative Cities Monitor?

The study tested empirically the hypothesis that buildings, cultural heritage, and Adaptive Reuse of Cultural Heritage are explicitly included in Europe's new Circular City Plans.

Particularly, those cities that are highly ranked on the European Cultural and Creative Cities Monitor.

- 1. Which European cities score highly on the Cultural and Creative Cities Monitor and have implemented a CCP?
- 2. Which circular city plans include the built environment?
- 3. Which circular city plans include cultural heritage/adaptive reuse of cultural heritage buildings?

	29 Indicators		9 Dimensions	3 main facets
1	Sights & landmarks			
2	Museums & art galleries	血	1.1 Cultural Venues & Facilities	Cultural Vibrancy
3	Cinemas			
4	Concert & music halls			
5	Theatres			
6	Tourist overnight stays		1.2 Cultural Participation & Attractiveness	
7	Museum visitors	ågå.		
8	Cinema attendance			
9	Satisfaction with cultural facilities			
10	Jobs in arts, culture & entertainment		2.1 Creative & Knowledge-based Jobs	
11	Jobs in media & communication			
12	Jobs in other creative sectors			
13	ICT patent applications	©	2.2 Intellectual Property	Creative
14	Community design applications		& Innovation	Economy
15	Jobs in new arts, culture & entertainment enterprises		2.3 New Jobs in Creative Sectors	
16	Jobs in new media & communication enterprises	R		
17	Jobs in new enterprises in other creative sectors			
18	Graduates in arts & humanities		3,1 Human Capital & Education	Enabling Environment
19	Graduates in ICT			
20	Average appearances in university rankings		-,	
21	Foreign graduates		3.2 Openness, Tolerance & Trust	
22	Foreign-born population			
23	Tolerance of foreigners	\bigcirc		
24	Integration of foreigners			
25	People trust			
26	Accessibility to passenger flights		3.3 Local & International Connections	
27	Accessibility by road	星		
28	Accessibility by rail			
29	Quality of governance	3.	3.4 Quality of Governance	

List of Cities and Countries Included in the Dataset Debrecen (HU) Las Palmas (ES) Seville (ES) Wrocław (PL) Aarhus (DK) Namur (BE) Amersfoort (NL) Dresden (DE) Lecce (IT) Nantes (FR) s-Hertogenbosch (NL) York (UK) Dublin (IE) Sibiu (RO) Naples (IT) Zagreb (HR) Amsterdam (NL) Leeds (UK) Antwerp (BE) Zaragoza (ES) Dundee (UK) Leeuwarden (NL) Nicosia (CY) Sintra (PT) Leiden (NL) Edinburgh (UK) Nitra (SK) Sofia (BG) Zurich (CH) Athens (EL) Avignon (FR) Leipzig (DE) Norrköping (SE) Split (HR) Eindhoven (NL) Baia Mare (RO) Norwich (UK) Stavanger (NO) Espoo (FI) Leuven (BE) Barcelona (ES) Essen (DE) Liège (BE) Nottingham (UK) Stockholm (SE) Basel (CH) Faro (PT) Liepāja (LV) Nuremberg (DE) Stuttgart (DE) Bergen (NO) Szeged (HU) Florence (IT) Lille (FR) Odense (DK) Limassol (CY) Berlin (DE) Frankfurt (DE) Olomouc (CZ) Tallinn (EE) Bern (CH) Osijek (HR) Tampere (FI) Galway (IE) Limerick (IE) Bilbao (ES) Gdansk (PL) Limoges (FR) Oslo (NO) Tartu (EE) Ostend (BE) Terrassa (ES) Birmingham (UK) Geneva (CH) Linz (AT) Bochum (DE) Genoa (IT) Lisbon (PT) Ostrava (CZ) The Hague (NL) Bologna (IT) Ghent (BE) Liverpool (UK) Paris (FR) Thessaloniki (EL) Glasgow (UK) Ljubljana (SI) Bordeaux (FR) Parma (IT) Timisoara (RO) Bradford (UK) Lleida (ES) Patras (EL) Torun (PL) Gothenburg (SE) Braga (PT) Granada (ES) Łódź (PL) Pécs (HU) Toulouse (FR) Bratislava (SK) Graz (AT) London (UK) Perugia (IT) Trento (IT) Bremen (DE) Groningen (NL) Lublin (PL) Pesaro (IT) Trieste (IT) Lund (SE) Brescia (IT) Guimarães (PT) Pilsen (CZ) Turin (IT) Brighton & Hove (UK) Győr (HU) Luxembourg (LU) Plovdiv (BG) Turku (FI) Bristol (UK) Hamburg (DE) Lyon (FR) Porto (PT) Umea (SE) Uppsala (SE) Brno (CZ) Hannover (DE) Maastricht (NL) Poznan (PL) Utrecht (NL) Bruges (BE) Prague (CZ) Heidelberg (DE) Madrid (ES) Brussels (BE) Presov (SK) Valencia (ES) Helsinki (FI) Mainz (DE) Bucharest (RO) Iasi (RO) Malmo (SE) Pula (HR) Valletta (MT) Budapest (HU) Kalamata (EL) Manchester (UK) Varna (BG) Ravenna (IT) Riga (LT) Burgos (ES) Karlovy vary (CZ) Mannheim (DE) Veliko Tarnovo (BG) Cagliari (IT) Rijeka (HR) Karlsruhe (DE) Maribor (SI) Venice (IT) Cluj-napoca (RO) Katowice (PL) Marseille (FR) Rome (IT) Veszprém (HU) Coimbra (PT) Rotterdam (NL) Kaunas (LT) Matera (IT) Vienna (AT) Cologne (DE) Klaipeda (LT) Milan (IT) Saint-Étienne (FR) Vilnius (LT) Copenhagen (DK) Kortrijk (BE) Mons (BE) Salamanca (ES) Warsaw (PL) San Sebastián-Donostia Waterford (IE) Montpellier (FR) Cordova (ES) Košice (SK) (ES) Cork (IE) Krakow (PL) Munich (DE) Santiago (ES) Weimar (DE)

Table 1. List of cities and countries included in the dataset. European Cultural and Creative Cities Monitor 2019 (alphabetical order).

The Adaptive Reuse of Cultural Heritage in European Circular City Plans: A Systematic Review

	Indicator Name	Description	Decision Rule
1	Jurisdiction/ Governance Level	Whether the CCP is targeted to the national, regional, cluster, or city level.	Direct statement that the plan goes beyond the geographical border of the city. Otherwise assumed that all plans are for territory within city boundary.
2	Official/Unofficial	Whether the CCP is developed, adopted, or endorsed by the government as an official strategy or is the document developed by a non-governmental organization (NGO), such as an advocacy group or Chamber of Commerce.	Its author, foreword, discussion of budgeting, and/or reference to official adoption/signature by elected officials show the endorsement or adoption of a CCP document by the government as an official strategy. The government may be the author or sponsor of the document and its official seal is on the document. Unofficial documents are written by NGOs and are not endorsed by the government. Whether or not the document is available on an official government website also indicates if it is official or unofficial.
3	Built Environment	Is the built environment addressed within the existing circular agenda?	More than passing mention necessary. A specific strategy or data analysis present.
4	Cultural Heritage	Is cultural heritage and/or ARCH specifically addressed within the existing circular agenda?	The text indicates inclusion for cultural heritage and/or ARCH.

Table 2. Decision rules for indicator coding of circular city plan (CCP) text. ARCH, adaptive reuse of cultural heritage.

Source: Foster, G.; Saleh, R. (2021),
The Adaptive Reuse of Cultural
Heritage in European Circular City Plans:
A Systematic Review. Sustainability,
13, 2889. https://doi.org/
10.3390/su13052889

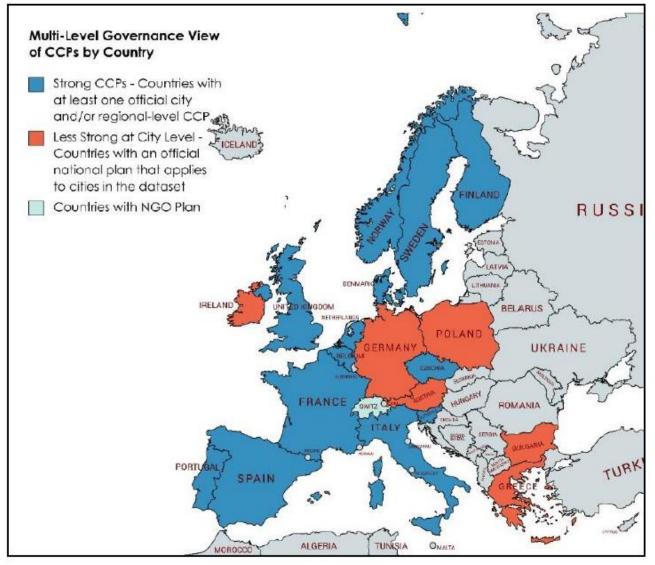


Figure 1. Geographic representation of circular city plans (CCPs) by country (created with https://mapchart.net/(accessed on 25 January 2021)). NGO, non-governmental organization.

The Adaptive Reuse of Cultural Heritage in European Circular City Plans: A Systematic Review

Strength of Circular City Plan Categories of the Index Scoring Scheme (Scoring Appears in Parentheses)	Number	Percentage of Cities Researched
Official Circular Economy/Circular City Plan for the city (100)	22	12%
Official Regional Circular Economy Plan (75)	23	12%
Official National Circular Economy Plan or city-level resource/waste plan relevant to CE (50)	104	55%
Official National Resource or Waste Plan mentioning or directly relevant to CE (25)	2	1%
NGO Circular Economy Plans at all levels (10)	5	3%
No plan identified (0)	34	18%
Total Cities Researched	190	

Table 4. Overview of literature review of circular city plan results.

Source: Foster, G.; Saleh, R. (2021), The Adaptive Reuse of Cultural Heritage in European Circular City Plans: A Systematic Review. Sustainability, 13, 2889. https://doi.org/10.3390/su13052889

Study findings

Number that Include Built Environment in Plans	Percentage of Cities in the Sample
155	82%

Table 6. Prevalence of the built environment in CCPs.

Number That Include Cultural Heritage of All Plans	Percentage of Cities in the Sample
13	7%

Table 7. Prevalence of cultural heritage and ARCH in CCPs.

The study concludes that most European city governments in the culture-focused dataset have not recognized or capitalized on the synergies and opportunities that arise from integrating ARCH with CE. The results indicate that European cities that are highly ranked for their overall 'cultural vibrancy', 'creative economy', and 'enabling environment' according to the the 2019 Cultural and Creative Cities Monitor still fail to address cultural heritage and ARCH as a relevant and strategic CE issue.

- -The top 20 ranked cultural cities are more likely to have strong CCPs.
- -The top 50 percent of the Monitor ranking is more likely to have strong CCPs than the bottom 50 percent.
- -The 22 cities in the dataset with strong CCPs are located in the 21 countries that also have national CE strategies.
- -The EU policy emphasis on the circular economy is now widespread—79 percent of the city territories reviewed are included in an official CE plan at some administrative level.
- -The largest cohort of cities in the dataset (55%) have only national CE strategies.
- -The majority of territories in the sample recognize that the **built environment is pivotal** for CE—nearly all CCPs include buildings.
- -There is no statistical evidence that cities of the top 50 percent of the Monitor ranking address cultural heritage buildings in the CCP more than the bottom 50 percent.
- -Very few cities address cultural heritage buildings in their CCPs—only seven percent. 12

The role of culture for sustainable development. Recent timeline



United Nations resolution on culture and development 2010 (A / RES / 65 / 166) and 2011 (A / RES / 66/208), culture and sustainable development 2013 (A / RES / 69/230); 2014 (A / RES / 68/223); and 2015 (A / RES / 70/214).

In 2013, the UNESCO International Congress "Culture: key to sustainable development" held in Hangzhou, drew a line on the correlation between culture and sustainable development.

In 2015, the UN recognized the role of culture as an essential catalyst for sustainable development Transforming our world: the 2030 Agenda for Sustainable Development

In 2015, UNESCO launched for creating more a global survey on the role of culture. Published in 2016 as the global report, Culture Urban Future. It offers a holistic picture of the role of culture as the basis for sustainable urban development, supported by case studies from around the world

heart of urban renewal and innovation. It is a strategic asset inclusive, creative and sustainable cities. It embodies the soul of a city. enabling it to progress & build a future of dignity for all. The New Urban Agenda (2016) addresses the crucial role of culture in the urban context

Culture is at the

The Davos Declaration in 2018 underlined the role of culture in shaping the living environment in a sustainable manner by stating that "culture enables and stimulates economic, social & environmental sustainability. It shapes our identities and defines our heritage.

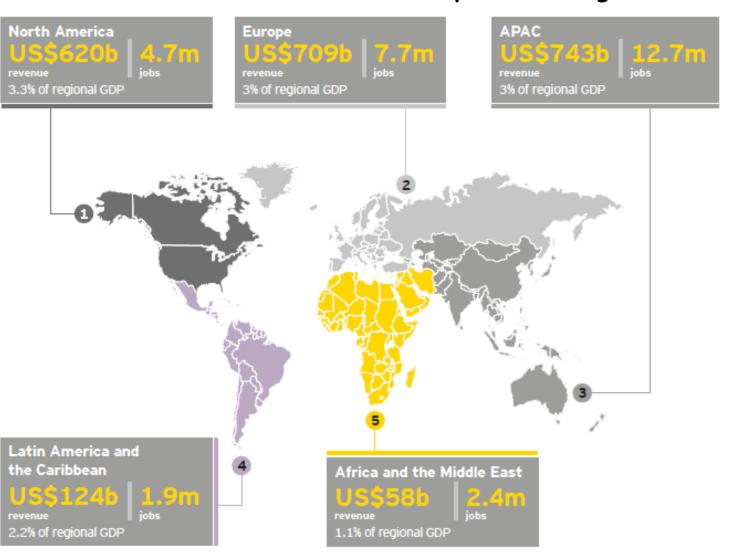
In 2021, "The New European Bauhaus wants to make the Green Deal a cultural, human centred and positive, "tangibl e" experience". Sustainability (including circularity); Quality of experience (including aesthetics: **Inclusion** (including accessibility and affordability)

The economic value of cultural and creative industries worldwide

Asia-Pacific is the world's largest CCI market, generating a third of total revenues, followed closely by Europe and North America. Latin America, & Africa and the Middle East rank fourth and fifth, respectively in the report, the potential and opportunities in these two regions is striking.

"In 2017, there were more than 1.1 million cultural enterprises in the EU-27, representing approximately 5 % of all enterprises within the non-financial business economy. Together they generated a total value added of more than EUR 145 billion, equivalent to 2.3 % of the total non-financial business economy" (IDEA Consult et al. 2021:15).

The creative industries account for 3 per cent of global GDP



Source: EY (2015), Cultural times: The first global map of cultural and creative industries





Cultural entrepreneurship

Cultural entrepreneurship is a set of activities aimed at harnessing a cultural business opportunity. The novelty stands in being innovative in transforming cultural values into economic values.

The cultural entrepreneur harnesses the existing cultural (tangible and intangible) and economic values and transform them into enhanced cultural, economic, social and environmental impacts, outcomes and benefits.

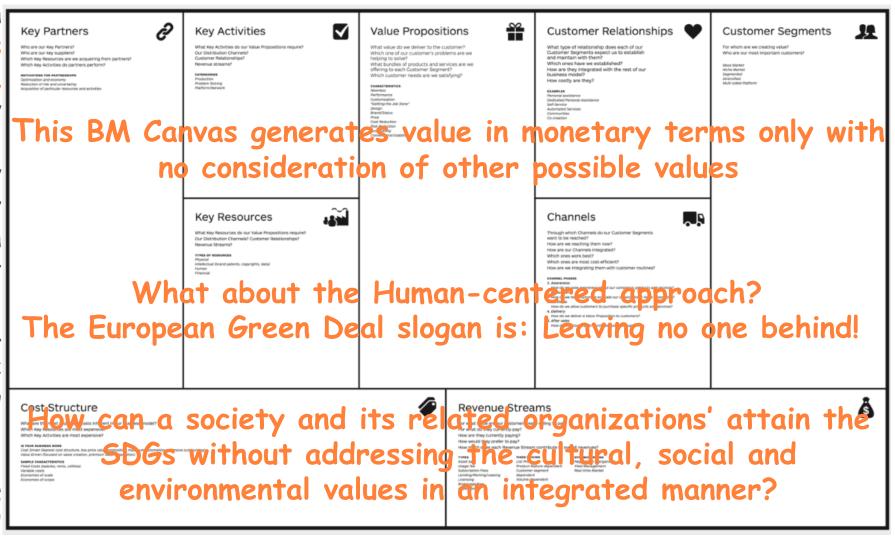
S/he needs new skills and technologies to transform assets into innovative cultural services, goods, uses and organizational forms that generate financial revenues, positive societal impacts, and new creative and cultural markets.



Ost, C., Saleh, R. Cultural and creative sectors at a crossroad: from a mainstream process towards an active engagement. Built Heritage 5, 14 (2021). https://doi.org/10.1186/s43238-021-00032-y

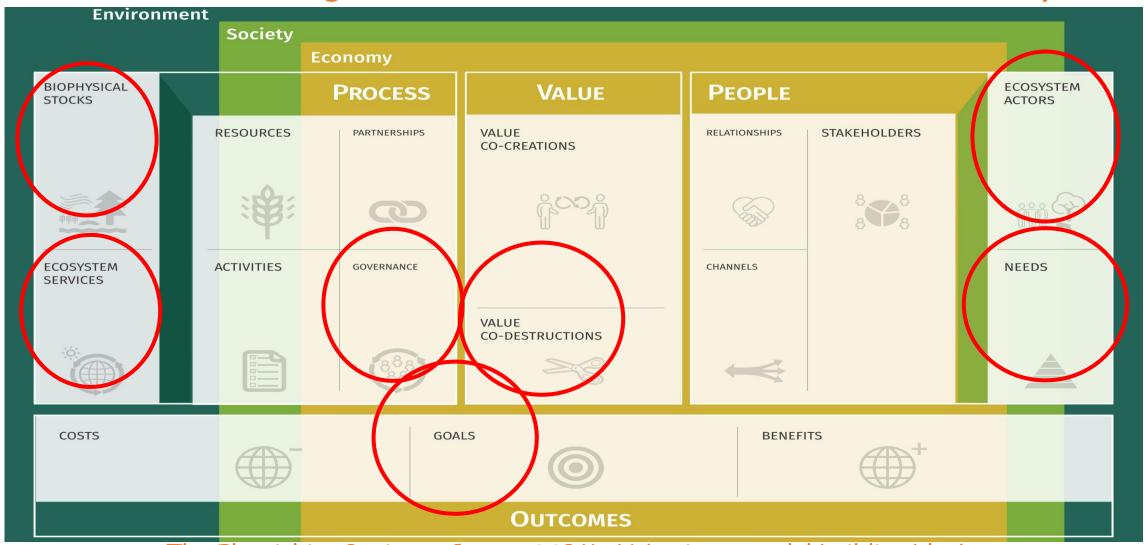
What is a BM?

- "(a) business models center on the logic of how value is created for all stakeholders, not just how it is captured by the focal firm;
- (b) activities performed by the focal firm as well as by partners, suppliers, and even customers play an important role;
- (c) business models emphasize a system-level, holistic approach toward explaining how firms "do business"; and
- (d) the business model is emerging as a new level and unit of analysis" (Zott and Amit, 2013).



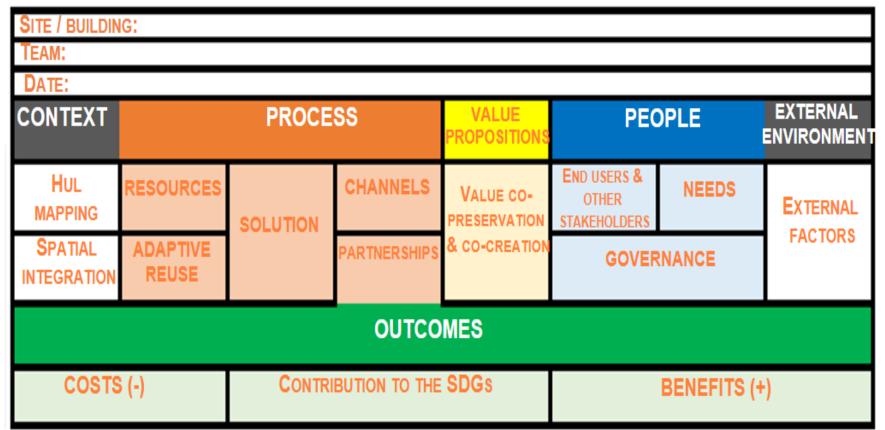
Business Model Canvas: 9 business model building blocks Osterwalder, Pigneur et al. 2010

The Flourishing Business Model. A tri-profil metric Environmental regeneration, social benefits & economic viability



The Flourishing Business Canvas SSBM: 16 business model building blocks ©Antony Upward / Edward James Consulting Ltd. 2014

Circular Business Model workshops for cultural heritage adaptive reuse



Ost & Saleh 2019







Theoretical framework and practical examples

Conducted 4 workshops & codesigned 4 BM encompassing different revenue streams

C-SHIP project



"Creativity is the answer we've been looking fornow is the time to embrace and invest in it"

Marisa Henderson, Chief of Creative Economy, UNCTAD (United Nations Conference on Trade and Development)

Source: Creativity, Culture and Capital: Impact investing in the global creative economy

Website: https://www.creativityculturecapital.org/?



Developing a just, sustainable and profitable global creative economy through impact investment



MARKET ANALYSIS OF THE CULTURAL AND CREATIVE SECTORS IN EUROPE A SECTOR TO INVEST IN



International Year of Creative Economy for Sustainable Developement

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Thank you!

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