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Working Group on Youth Employment

Inclusive Collaboration for an Urban Circular Transition

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This policy brief intends to adapt a potential framework of collaboration between all actors of society (academia, business, civil society and government) to contribute to the policy making process that the European Union employs to deal with one of the most pressing problems at the heart of concern of this working group: youth unemployment. The brief will argue that this problem needs to be seen from an ecosystem perspective, taking into consideration that we live in Anthropocene. Teachings from environmental politics should therefore be considered and guide the decision-making process when it comes to deal with disturbance regimes (i.e. factors, trends, and dynamics, such as unemployment that threaten the stability of an ecosystem by lowering the responsive capability of its biodiversity) in our ecosystem.

A concrete example of the inadequateness of the current system in place in order to answer global threats can be seen in the incapability of coordinating all actors of society for building a cohesive response against the COVID-19 outbreak across the local, national and international level. The extreme interconnectedness of our society leads to extreme sensibility that rapidly turns into unforecasted herd effects, which hinder the capacity of forecasting an appropriate response to emerging disturbance regimes. On the other hand, such rapid chain of cause and effect can be seen as an opportunity to harness collective intelligence. In fact, we have been seeing the mobilization of civil society and the private sector to provide support and help to those in need showing a strong capability that bypasses governments' actions thanks to its agility and scaling potential.

Such actions are the result of what can be defined as a strategy that grants resiliency (i.e. the capacity to deal with change and continue to develop through adaptive co-management – an approach based on collaboration among multiple actors). A resilient strategy uses controlled experiments, with the consequent

need for monitoring, evaluation and constant improvement. This grants flexibility and openness to learning that could stimulate sustainable development by enhancing resilience in coupled human and natural systems (Stockholm Resiliency Centre, 2020). Based on this, I would like to propose a model to standardize such multi-actor dynamics to strategize society's response against two pressing disturbance regimes affecting our ecosystem: unemployment and climate change. This is because resource consumption (causing climate change) is interlinked with employment levels: every 1% decrease in resource consumption is worth 23EUR billion to business and can create between 100.000 and 200.000 new jobs (EU commission, 2016).

The following pages will present a reinterpretation of the "Tech4Good Innovation ecosystem" proposed by Accenture's Corporate citizenship department in 2018, which I believe would have the potential to implement a positive feedback loop between the different actors of society to cultivate urban resiliency. If such a collaboration framework could be proved successful, it could become a plug and play model to implement in different cities (where 70% of the world population is living nowadays) and contribute to the estimated resource cut in the EU by one sixth, consequentially boosting GDP up to 3.3% and create between 1.4 and 2.8 million new jobs (EU Commission, 2016).

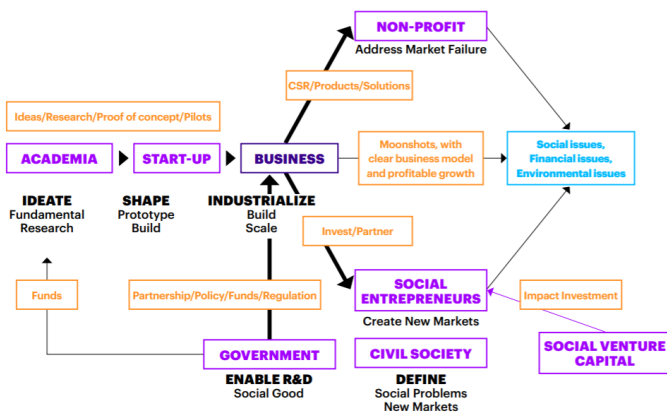
Challenging Accenture's ecosystem design

To design the needed ecosystem service innovation is needed. Accenture's paper assumes that the new technologies that can help to answer the emerging need of a growing population are firstly developed by academia and start-ups for later being built out at industrial scale. Based on such assumptions it states that:

"Businesses need to bind all the players in the ecosystem together in a Tech4Good

Innovation Framework. This will harness the 'collective intelligence' currently distributed across the system into a synergistic whole. The result? Innovative solutions that solve complex social problems, scaling up successful models and addressing market gaps through alternative options."

Based on this assumption, the innovation ecosystem should function like this:



In my opinion, the linear design of the above ecosystem marginalizes the role of academia. As it can be noted, academia, even if placed at the beginning of the innovation flow, merely receives government funds as input in order to lead its research. The main flow here is the lack of any kind of feedback loop that would allow to redirect the research scope according to the real needs of society and ever-changing conditions of the environment. This makes Accenture’s ecosystem heavily reliant on government perspective, which, in the above schema, are not even counselled or take into consideration the potential inputs from other actors. The result is then dependent on the mere sum of each actor role, not on the inclusive collaboration of each actor of society, highlighting the linearity of such thought process, where one steps is based solely on the previous one. Taking into consideration the timing for developing and scaling any business idea, and the rapidly shifting needs of society and environmental conditions, it is quite

understandable how 90% of start-up projects fail, whether they are for or no-profit.

Instead of focusing on a linear and short-term focused model of innovation, I believe it would be more efficient to implement a positive feedback loop system, coordinated by universities and not an actor which would have vested interest per definition, but one that focuses on long term needs. This would allow rapid prototyping to be tested multiple times before getting scaled by big business, requiring an active engagement of civil society, which at the end encompasses all the other actors.

Defining the purpose

The possibility of constantly reviewing, grading and re-designing the innovation stream rationally depends on the clarity of the objective. In the case of this elaborate, we can consider the objective to be the reduction of resource consumption in cities.

A concrete example that can be taken into consideration is the city and metropolitan area of Madrid which is currently estimated to host 6.62 million people in 2020 and reach almost 7 million by 2035 (world population review, 2020). With such numbers the city is experiencing many problems in terms of waste management (56.7% of waste is dumped in landfills in 2018), housing (rent cost in the centre has soared 38% since 2014) CO2 emissions and traffic. In fact, as the Ellen Mc Arthur Foundation (2019) supports, the 4 key sectors that need to transition towards a circular and sustainable business model are: energy, food system, transportation and built environment. Most of the young people between 18 and 24 (age rate defined by the EU commission for referring to Youth) in Spain are attending university where, in case such framework is implemented, they would be surrounded by new ideas and challenges that might empower the entrepreneurship ecosystem for dealing with local problems and retain talent in a country that has a youth

unemployment rate of 30.6%. (Statista, 2019). On a system level the potential added value that this revisited framework could bring to any city experiencing fast urbanization is by enabling a collaborative approach for urban management. In particular, if we consider the four above mentioned sectors, indicated as the biggest creators of urban waste, city governments could leverage such framework to engage all actors of society in the process of reshaping how public goods and services are procured and city assets managed and how circular asset management practices could inform public procurement standards and vice versa. This would influence the policy design process that leads urban planning, asset management and public procurement towards a circular transition, necessary for achieving resource cuts and creating the consequent job creation. In fact, the three policy levers interlink the choice, design, use, the flow of materials in a city and its landscape planning (for its influence on how assets in that ecosystem can be managed) and set how materials in the city are managed and used.

This could open up different local production and collaboration opportunities for changing the way materials are procured and move around the city, how urban priorities are set around housing and building-access, how landscape is designed for easing mobility and adapt to climate change and how organic and solid waste flows are reintroduced into the energy, food and agriculture value chain. According to the Ellen Mc. Arthur Foundation such an approach to urban planning and design is key to embedding circular economy principles into the policy levers of city governments to enable a circular transition that has the economic potential to have positive spillover effects over the prosperity, jobs, health and of the communities (Ellen Mac Artur Foundation and ARUP, 2019).

In the following paragraphs I will briefly expose four potential steps that resume how Accenture's ecosystem can adopt circular

principles and be implemented in academic environments within the objective of creating a collaborative and inclusive urban management environment.

All participants will have the opportunity to apply Systems thinking- *"...essential for transitioning to a circular economy and is apt to apply to cities, which are complex, adaptive, dynamic systems made up of interconnected, often interdependent parts."* (Ellen Mac Artur Foundation and ARUP, 2019).

Looking at the international political agenda, it can be claimed that such a collaboration methodology aims at contributing to the objectives deployed in the UN Agenda 2030. Specifically to objective number 11: Sustainable cities and Communities, 12: Responsible consumption and production and 17: Partnerships for the Goals.

Implementing the positive feedback loop system

To implement the innovation ecosystem discussed in a concrete place like a city, universities can assume a central role for becoming a hub for designing an inclusive resiliency strategy. This is also considering their potential in addressing the scaling dilemma. Many projects fail to scale beyond the pilot stage due to a failure to understand the underlying social and economic context. The different points of a feedback loop that can help to include all actors of society into the creation of services that benefit society, environment and businesses by taking into consideration the changing social and economic context from different perspectives, can be resumed in the following steps:

1) Design and develop

Students have little occasion to learn from the external world. Having the opportunity to join or lead projects coming out of open innovation workshops would give them professional first-hand experience and learning-by-doing

opportunities. Open innovation workshops use design thinking tools in order to create a concept of a service (a potential service or product that can alleviate the identified problem or impact of specific disturbance regimes), from the collaboration of actors with a different profile, mixed and working on the same research question. Those tools help each actor to contribute with their own experience to achieve the common objective of improving urban management by promoting a collaborative approach for urban policy (i.e. urban planning, asset management and public procurement) design. I think this should be the starting point of the positive feedback loop.

2) Incubation and acceleration:

To grant the validity of the presented concepts it is necessary to gather data and evidence to test, measure and identify where the first pilot can be implemented. Those tasks perfectly fit the functions of what can be defined a Venture Lab, like the one present in IE University of Madrid. A place where students, guided by different mentors, could have the opportunity to work (as a start-up) on their personal project or follow up on the winning workshop concept (on which they might have actually worked on and networked already with different people in the field). This would give universities the occasion to

- Specialize different university faculties into the continuous scanning of the different sectors and make students conduct their works based on local problem that they can directly experience.
- Reiterate the idea multiple times thanks to mentors' feedback.
- Resolve the problem of coordinating the different team members of the open innovation workshop-being people with totally different routines, which nevertheless have the occasion to

mentor the startup or being involved in the evaluation of the pilot as part of civil society.

- Create an ecosystem network around places of knowledge and critical thinking where all society can come to contribute to make the common ecosystem more livable, secure and inclusive.

3) Promotion and adoption

As third step the different start-ups projects that aim at rethinking urban management at a system level and working the same field (i.e. energy, food system, transportation and built environment) can be presented in front of a group of investors and public administration representatives that can decide to place the necessary funds for the project to be turned into a pilot through financial subsidy in the form of grants, government aid and philanthropy. Such financial tools are key to mitigate the high risks of starting a business in volatile, low-margin markets.

The pilot, to allow for rapid prototyping (4th point), could follow those steps:

- 1) Be ran in the same university or a neighborhood, depending on the breadth and mission of the project (e.g. electric bikes rental service to students).
- 2) Civil society (i.e. the students and the citizens) should then be engaged by both the university and the municipality in reviewing the services or products offered (questionnaire and reviews, focus groups etc. to weight quality and environmental impact of the service).
- 3) Civil society (including the other actors depending on the objective of the workshop) could be invited in participating actively in the next open innovation workshop. The objective of such follow-up workshop should be shared around the four main barriers that characterize the implementation of circular economy business models:1)

Financial; 2) Technical-related to production and adoption capability barriers, 3) Reglementary-related to laws and directives in place 4) Social-related to cultural and social barriers.

4) Sustainable operations

As last point, if the start-up is able to receive a positive feedback based on assessing the business, social and environmental benefits on the place where it has been piloted for more than a year, it can either run for another round of investments or be presented to a board of companies that would like to incorporate it. Universities here come in again as a fundamental actor as having the task to design proportional quantitative and qualitative metrics to assess the social and environmental impact of the pilot in the long term. If the impact has been negative, the startup itself can go back to the first step (design and develop) and present what didn't allow them to scale in a new open innovation workshop that will have the purpose to learn from other mistakes and redesign the product or service around them. Thus, the ecosystem is given the opportunity to close the loop.

Conclusion

I believe the EU Commission could support the establishment of urban ecosystems that base their adaptation strategy on the implementation of the above described steps through policy making (to design regulations that favour the uptake of new systems to be put in place), expertise reach (for mentoring and workshop facilitation), operating knowledge (supporting start-ups to measure the impact on environment, economy and society) and funds (fomenting academic research and innovation). In such vision of the political class' duty, each actor of society is allowed to be represented and its feedback considered when it comes to define the innovation process that aims at boosting creativity, indicated as the only element that resist automation – the biggest

disturbance regime afflicting employability (WEF forum, 2018).

Adopting a collaborative approach to the shaping of three key policy levers (urban planning, asset management and public procurement) for transitioning to a circular city model will require a new approach to materials, supply chain and design values. Incentivizing the creation of a responsible consumption and production model philosophy across all actors of society. This will allow to set collaboration steps that any municipality experiencing rapid urbanization contribute could use to start building a circular innovation framework on which to build a sustainable urban management model. As noted by the international resource panel (Ellen Mac Arthur Foundation, and ARUP, 2019), the implementation of a circular economy models for planning and shaping the development of growing cities is key to achieving SDG 12 (Responsible consumption and production). The latter is foundational to allow SDG11 (sustainable cities and communities) to become reality. Finally, the strict collaboration between different actors will allow to share agendas, perspectives, build consensus and raise awareness for the need of rethinking the way cities procure and consume their resources, contributing to SDG17: partnership for the goals.

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