

## Collective intelligence and cities' smart growth in GCC

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As highlighted in a recent publication on Smart Cities and Sustainable Development Goals (SDGs) ([Visvizi, del Hoyo, 2021](#)), the concept of Smart Cities span over existing cities, big and small, and not just on new foundation cities, which are explicitly built under the concept of the smart city. Between the new foundation cities, the new expansion districts, and the already existing ones, the difference is the way people live there and the potential of people to tell their stories, contributing with their collective intelligence to the development of the cities towards a smart future. How can people contribute to the smart city process?

Participatory processes bring several benefits to urban development, especially in the existing area, where the social network complexity would make the typical top-down approach difficult and not necessarily successful. The needs of the residents require a gentle approach, not based on an imposed rigid master plan, but more a strategic implementation frame, together with the institutional support to engage through an almost self-activated process, in what can be defined as a liquid approach to the city. This kind of process can happen through catalyst elements, from where the further development of other areas is coming. It is not a process based on big urban blocks but more built according to attractors on simultaneous different scales of intervention.

In GCC cities, what is happening is that expected development is so fast, making this kind of process getting neglected. Missing with it the chance of enhancing, together with new human-centered urbanism, the collective awareness; missing the opportunity to strengthen the local human capital, generating a long-term beneficial effect to the community.

Saudi Arabia launched students' competitions on the several megaprojects of the Kingdom to collect fresh ideas and perspectives, generate awareness and visibility on the projects, and select the best talents. However, a students' engagement workshop would yield a much wider effect. A similar initiative was taken by the Qatar government, recently hosting a 3-day design workshop and conference engaging university students, instructors, stakeholders, and professionals on hands-on experience working on real projects. Similarly, the Riyadh Museum District Student Challenge's bottom-up approach involved 120 students and 6 Saudi universities, meeting and engaging with over 40 professionals and stakeholders from local and international institutions, agencies, and research centers. The project was presented at the World Urban Forum 10 by ICOMOS and UDLG international representative as a good practice for social engagement and SDGs activator toward the 2030 Agenda. ([Petrucci, Trasi 2021](#)) The Challenge's goal was to pre-figure possible scenarios for the forthcoming Riyadh Museum District as a transit oriented development (TOD) pedestrian district in Riyadh. The adopted procedure allowed to generate master plans from a perspective of low-scale architectural and urban design features, activating the concept of the fluid ecosystem instead of an over-imposed grid. The outputs can be an advantage for developing agencies for further decision-making. ([WUF10, 2020](#))

These disruptive approaches can be generating an exponential mutual benefit and contribute to the smart growth of society in terms of cooperation, capacity building, population empowerment, and operation logic of circular economy. Whenever external consultants are required to support the local offer of trained professionals, cities are missing out on the opportunity for capacity building of skilled young people and their active contribution to the transformation process by relinquishing an adequate return to the territory in terms of capacity building in decision making of local resources. The urban sector has capital invested, and research needs funding; the investment would be retained in the country, thanks to a hands-on mentoring process, on the other hand, would activate long-term professional opportunities for locals and focus on young adults while providing learning at a high level of complexity and specialization. It would also represent a cross-fertilizing initiative in accelerating the achievement of SDGs, making SDGs #4 (education), #8 (economic growth), #11 (resilient cities) creating synergy by

networking, sharing experiences, and generating peer to peer collaboration in best practices and capacity building. It would finally achieve policy integration and a long-term benefit to the local community from external counseling experience in capacity building.

Moreover, a local perspective, and the participation of highly educated community members, engaging in research-based problem solving would generate innovative urban visions. Furthermore, the process could be a valuable tool as a product of applied research that facilitates decision-making and policy-briefing on a diverse range of urban scenarios while promoting the commitment to learning-by-doing practices as recognized research and academic activities in terms of personal development. (Petrucci, Trasi, 2021) Making cities sustainable, and activating smart growth, means creating career and business opportunities, safe and affordable housing, and building resilient societies and economies. It involves investments in public transport, green public spaces, and urban planning and management in participatory and inclusive modes. Under this perspective, students' challenges and other forms of social engagement with citizens, NGOs, and stakeholders can be considered a new industry dedicated to SDGs, researching and implementing virtuous practices and procedures in achieving SDGs. These could contribute to an urban and social smart growth urban and decision making by involving research and academia in learning-by-doing, facilitating the allocation of human resources to mentoring, and activating interactive exchanges of different members of the society.

There is a large potential for a partnership and commitment between governments, civil society, industry, universities, and other educational institutions to support an inclusive and quality educational offer of direct placement in the community. A metaphor of a bottom-up, cooperative approach was theorized-in-practice by the French pavilion at the Venice biennale 2016. The collective Exyzt delivered [Metavilla](#) becoming a creative residence for different groups offering workshops and making it a temporary structure to conduct specific activities. Temporary structures enabling the transformation can then become part of the urban furniture by changing function, becoming info points or small coffee shops, and helping to activate the residents' consciousness and anticipate the physical development of the neighborhood. In Hamburg, a successful activation project was the [University of Neighborhood](#) (UdN), a pop-up experience of neighborhood practice of the HafenCity University within the International Architecture Exhibition in 2013. The planning department managed the refurbishment and temporary use of an old building, activating multiple social engagements among students, social workers, and residents of any age. It is worth mentioning that [IBA Hamburg](#) represents one of the most successful Europe's urban regeneration projects. After strategic development operations from the government and placemaking, it has been entirely developed through community participatory housing projects. The praxis could be encouraged by rewarding systems and supported by a high-end theoretical approach of integrated research, publicly funded, where the agents mentioned above are interacting together to offer a white book on a specific issue to be solved. A good example is a study commissioned by the French government (Trasi, Tufano, 2019), used as guidelines in policymaking and further implementation.

The last G20 highlighted the importance of "People, Planet, and Prosperity" as parts of an integrated system. (T20 Italy, 2021). The involvement of local research centers, together with NGOs and young designers, as the makers and future inhabitants of the newly developed districts and future inhabitants, could generate urban and social smart growth as a unique benefit for existing cities in the GCC during their fast-growing process. It could strongly impact local communities in terms of optimizing resources, ensuring concrete results, and immediate application of best practices while empowering young adults to embrace and lead the transformation and activating a process of informed decision-making.

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