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Ten key ideas for Biocities

The world population is projected to reach ~9.7 billion people by 2050, 68% of which are expected to live in cities according to the UN DESA (2019). This means that more than 2.4 billion people are expected to move to urbanized areas in the next 30 years (= 6 million every month). Therefore an urgent transformation for designing urbanized areas to improve the quality of citizens life on a global scale is needed. This goes hand in hand with a deep and clear rethinking of natural resource usage.

What is the Biocity vision?

Biocities are to be understood as “cities hosted by nature” and not “nature hosted in cities”, that understand green (trees, forests and plants) and blue (water) infrastructures as assets and not costs. They are constantly evolving and exposed to dynamic processes like nature itself. This needs natural, technical and social science knowledge.

Ten new visionary functional traits for Biocities:

1. **Act as carbon sink:** they do not cause net carbon or other greenhouse emissions, but rather engage in net absorption. Trees, forests and natural vegetation are integrated as natural infrastructure in the city design and planning, maximizing their benefit.
2. **Be self-sufficient:** production takes place in its own buildings, neighbourhoods and local BioRegions. Energy, food and biomass production as well as water extraction serve the Biocities population itself, giving priority to sufficiency.
3. **Ensure multilayering:** different layers (from roof to subsoil) are organized in ways that green, blue, brown and grey infrastructure mutually reinforces itself.
4. **Enforce healthy living:** people are seen as part of the ecosystem where human wellbeing and biodiversity are fostered equally.

5. **Implement circular bioeconomy:** circularity in the economy system makes the Biocity a place where the so-called “end-of-life” idea is replaced by principles of recovery and reusage and waste becomes non-existent.
6. **Provide low-mobility connections:** habit change of its population is promoted as everything becomes reachable within a 15-minute walking radius.
7. **Out-balance urban-rural spheres:** urban and rural boundaries are re-evaluated, and environmental arbitrary borders eliminated to allow living in harmony with nature.
8. **Ensure participatory local culture:** participatory approaches to encourage self-determination of local residents and communities, as well as viewing city spaces as the shared property of all are integrated with existing decision-making processes.
9. **Be resilient:** in mature Biocities publicly accessible urban blue and green nature provide citizens with opportunities to lead healthy and meaningful lives as well as functioning as democratic realms.
10. **Be encompassing for all:** while prioritizing biodiversity no one will be eliminated from systemic and structural environmental equality and justice. Biocities are universal in their resource provision for all.

To follow and implement these traits, radical change is needed to adapt city planning, management and (co-)governance including a shift in city administrators’ mindsets towards an increased and all-encompassing commitment for nature. This also entails a local and place-based focus away from short-term economic gain and growth based on fossil fuels.

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