

Life-Long Education for Sustainable and Green Economy: Adopting Innovative Technologies for Better Health and Quality of Life

Prof Jan W. Dobrowolski PhD D Sc Dr HC Distinguished Professor*

AGH-University of Science and Technology, Team of Environmental Biotechnology & Human Ecology, Kat. GFTS, Wydz. GGiIS, 30-059 Mickiewicza 30, Paw.C4, Krakow, Poland.

ABSTRACT

In this paper it has been proposed that there is a requirement of a foundation for International Network of Experts in New Transdisciplinary Areas of Biomimetic Green Chemistry (Environmental Biotechnology integrated with Human Ecology, Biological and Chemical Sciences). These would play a key role for the success of such human-oriented missions supported by experts in material engineering, architecture, IT and many complementary research fields, contributing to optimization of new inventions and discoveries. I would like to introduce a working hypothesis that will be starting point for solving these crucial problems. The next step would be optimization of sustainable design of innovative constructions as result of cooperation of experts in architecture, mathematical modeling and IT. The next step of this mission would be supplementation of new constructions resistant to strong earth-quakes, more and more common winds due to climate change that would include development of living houses with life support systems (a bit similar to circular bioeconomy recommended for long-term manned outer-space missions). We have to collect complementary achievements in biotechnology-based circular wastewater treatment and reuse them for adaptation to climate change as well as waste bio-management. This can yield bio-fuel and bio-energies useful for optimal climate conditions, for production of pollutant-free food, vegetables, mushrooms, algae, aquaculture products, fishes and their breeding. Such new concepts of underground centers. integrating modern environmental biotechnology with large-scale production of food for inhabitants of big cities - may be a significant contribution to urban agriculture in different regions of the world. Proposed solutions would be also useful all over the world for better adaptation to climate change, in particular for prevention of infections during periods of epidemics, and for sustainable labor market related to bioeconomy-driven over all sustainable development.

KEY WORDS: BETTER LIFE, BIOMIMETIC, SUSTAINABLE SOCIETY, CIRCULAR BIOTECHNOLOGY, INNOVATIVE TECHNOLOGIES, ADAPTATION, CLIMATE CHANGE.

Article Information: *Corresponding Author: dobrowol@agh.edu.pl

Received 25/06/2024 Accepted after revision 20/07/2024

Publication Date: 31st July 2024 Page Number- 03- 11

This is an open access article under Creative Commons License,

<https://creativecommons.org/licenses/by/4.0/>.

Available at: <https://mntrc.in/>

DOI: <http://dx.doi.org/10.21786/mntrc/1.1.2>