

PolyUnderstanding BIP endorsement statements by Delia-Laura Popescu / UB

(a) Alignment with Scientific Interests and Plans:

As a chemist specialised in the synthesis and characterization of coordination chemistry compounds with applications in environmental and health-related fields, I strongly believe that the PolyUnderstanding BIP aligns closely with my own scientific interests and research plans. This initiative's focus on understanding the polycrisis—a complex intersection of environmental, social, economic, and health crises—resonates deeply with my ongoing work in developing chemical solutions for sustainability and global challenges. The interdisciplinary nature of the BIP, which incorporates policy, social sciences, economy and development, urban studies and mobility, provides a unique platform for integrating chemistry with other scientific domains, thus enhancing the breadth and impact of my research. The cross-fertilization with CIVIS Hub4 and the potential collaboration on research concerning sustainability and crisis mitigation is particularly relevant, as it complements ongoing work in my department related to environmental chemistry and public health. Specifically, the connection between environmental chemistry, crisis mitigation, and the global challenges highlighted in the BIP allows me to explore new venues for applying coordination compounds in addressing issues like pollution, resource management, and public health resilience. Additionally, the collaboration with experts in fields such as urban mobility and public participation will foster new perspectives and methodologies, enriching my own approach to chemistry and broadening the potential applications of my work.

Synergies with the Faculty of Chemistry and the University of Bucharest

The PolyUnderstanding BIP also offers significant synergies with the broader goals of the Faculty of Chemistry at the University of Bucharest. Our faculty has a long tradition of research excellence in environmental and health chemistry, and this program enhances our capacity to contribute to interdisciplinary solutions for global challenges. The focus on polycrisis and its mitigation aligns with our ongoing research initiatives aimed at developing sustainable/green chemical processes and addressing environmental degradation. Through this collaboration, we can further our commitment to research that not only advances scientific knowledge but also has practical, real-world applications for sustainability and human well-being. Moreover, this BIP will provide an opportunity for the Faculty of Chemistry to integrate global perspectives into our teaching and research practices. By engaging with partners from diverse academic backgrounds within the PolyCIVIS network, our faculty will be able to enrich its curriculum and promote cross-disciplinary research that can lead to innovative solutions for pressing global crises. This, in turn, strengthens the Faculty's role as a leader in both fundamental and applied research that aligns with the global sustainability agenda.

In conclusion, this BIP represents a unique opportunity for both personal research advancement and institutional development. The interdisciplinary nature of the program aligns seamlessly with my research on environmental and health-related applications of coordination chemistry, and with the University of Bucharest's commitment to global collaboration and research excellence. Through participation in this program, I am confident that we will make valuable contributions to the understanding and mitigation of the polycrisis, while also enriching our research and educational practices.

(b) Expected Positive Impact:

The expected positive impact of this BIP (Blended Intensive Programme) could be substantial across several dimensions:

1. **Fostering interdisciplinary collaboration:** by bringing together diverse perspectives from multiple disciplines—such as chemistry, environmental science, public health, economy, transportation, urban studies, and policy—the BIP will facilitate cross-fertilization of ideas and methods. This will enable participants to address complex global issues like the polycrisis in more holistic and integrated ways. The interdisciplinary collaboration will not only enrich the participants' research and teaching experiences but also lead to the development of innovative solutions to the interconnected crises facing our world.
2. **Enhancing research in environmental and health sciences:** as a chemist focused on coordination chemistry with applications in environmental and health-related fields, I expect this BIP to drive meaningful advancements in research. By engaging with the broader context of the polycrisis, which includes environmental degradation, public health challenges, and social instability, this program could lead to new insights and applications for chemistry in crisis mitigation and sustainability. The collaborative atmosphere will provide opportunities for novel research directions, with potential impacts on policy, industry, and academia.
3. **Strengthening educational synergies:** the BIP offers an innovative educational framework that emphasizes both teaching and research synergies. It will enhance the quality and relevance of curricula by incorporating real-world challenges related to the polycrisis, that could lead to new pedagogical approaches, research opportunities, and educational materials, such as the Polycrisis Handbook, that can be used both in our own programs and across the PolyCIVIS network.
4. **Promoting global collaboration and knowledge sharing:** with its focus on international cooperation, particularly between European and African institutions, the BIP will foster a global exchange of knowledge and expertise. This can have a profound impact on research agendas and initiatives that address pressing global challenges such as climate change, health crises, and social inequality. Collaboration between institutions like the University of Bucharest and universities in Africa, as part of the PolyCIVIS network, will broaden our perspectives and enhance our collective capacity to tackle the polycrisis in ways that are contextually relevant to both continents.
5. **Contributing to policy and action on the polycrisis:** by linking research and teaching to policy-informed initiatives, the BIP will help bridge the gap between academic research and real-world applications. Through the involvement of PolyCIVIS WP3 Policy and WP2 Research partners, the program is poised to make significant contributions to understanding and addressing the policy dimensions of the polycrisis. This is crucial for shaping global and local responses to environmental, health, and social crises, leading to more informed and effective policy-making.
6. **Building resilience and sustainability in communities:** as the BIP addresses issues related to fragility, resilience, and crisis management, it has the potential to equip students and researchers with the tools and knowledge to build more resilient communities. The program's focus on participatory methods, role-playing games, and practical projects ensures that the lessons learned are not only theoretical but also applicable in real-world contexts. This will empower individuals and communities to better respond to crises, promoting long-term sustainability and stability.

In summary, the expected positive impact of this BIP lies in its ability to foster collaboration, enhance research and education, promote global knowledge exchange, and contribute to policy solutions for the polycrisis. It will strengthen both academic and societal efforts to address the complex challenges of our time, driving meaningful progress in environmental sustainability, public health, and social resilience.