Design Global, Manufacture Local: Assessing the Sustainability Potential of an Emerging Mode of Production

Summary

The doctoral thesis will take place in the context of the project titled "COSMOLOCALISM" led by Prof. Vasilis Kostakis. Research will be oriented towards exploring the sustainability potential in the production of knowledge commons and open-source technologies through case studies and pilot projects both within the project and related to it.

Research field:	Public policy and innovation
Supervisor:	Vasileios Kostakis
Availability:	This position is available.
Offered by:	School of Business and Governance
	Ragnar Nurkse Department of Innovation and Governance
Application deadline:	Applications are accepted between November 16, 2020 00:00 and December 16, 2020 23:59 (Europe/Zurich)

Description

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The COSMOLOCALISM project documents, analyses, tests, evaluates, and creates awareness for an emerging mode of production, based on the confluence of the digital commons (e.g., open knowledge and design) with local manufacturing and automation technologies (from 3D printing and CNC machines to low-tech tools and crafts). This convergence could catalyse the transition to new inclusive and circular production models, such as the "design global, manufacture local" (DGML) model. COSMOLOCALISM is a pilot-driven investigation of the DGML phenomenon.

COSMOLOCALISM has three concurrent streams: democratisation; innovation; and sustainability. First, DGML governance practices will be studied, patterns will be recognised, and their form, function, cultural values, and structure will be determined. Second, the relevant open innovation ecosystems and their potential to reorient design and manufacturing practices will be examined. Third, selected DGML products will be evaluated from an environmental sustainability perspective.

The applicants are expected to provide a project proposal for their PhD work which would be attached to the sustainability stream of COSMOLOCALISM. In that sense, they will be expected to conduct research both independently as well as collectively in a highly collaborative environment. Their proposal should include their motivation for wishing to engage with their topic and an action plan in terms of data gathering and analysis.

The successful applicant will work individually but also closely with the project researcher team in collaborative academic work. The applicant will be part of a multidisciplinary research team, have access to state-of-the-art equipment and facilities, and enjoy collaboration opportunities with the project's international academic and activist partners. They will also be expected to take up administrative work in the context of the project's multiple pilot and outreach endeavors.

Qualification

The applicants should fulfill the following requirements:

- The candidate should hold Bachelor's and Master's in one or the intersection of the following areas: engineering, science and technology, and political ecology.
- A particular focus on the commons, open-source technologies and peer to peer practices as well as a strong background in the field of life-cycle assessment methods with relevant technical skills and practical knowledge will be considered ideal.

The position will only be filled when the project's requirements are fully met by a potential candidate.

In addition to the application documents required by the university´s admission office, the applicant should submit a project proposal (max. 3 pages).

To get more information or to apply online, visit https://taltech.glowbase.com/positions/167 or scan the the code on the left with your smartphone.