

Open Call

For small-scale agricultural solutions

Phygital[↑]

Design Global,
Manufacture Local



Balkan-Mediterranean

European Regional Development Fund

The **Municipality of Northern Tzoumerka**, in collaboration with the P2P Lab are happy to announce the launch of the three-day international agricultural co-design and distributed manufacturing retreat called **“Tzoumakers: Cultivating Open-Source Agriculture in Tzoumerka”**.

The event is part of the Municipality of Northern Tzoumerka activities for project **Phygital**. In a three-day gathering of farmers, designers, makers and scholars we will **demonstrate the potential of open-design and distributed manufacturing for the local agricultural sector** to guide a creative way out of the current ecological and social crisis.

The event will be centered around the **rural makerspace “Tzoumakers”**, [located in Kalentzi](#), in the Municipality of Northern Tzoumerka, Greece.

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1. Introduction and background

The [Municipality of Northern Tzoumerka](#) together with the [P2P Lab](#), a not-for-profit organisation based in Ioannina, dedicated to research around peer-to-peer dynamics in technology, society and economy, participates in the project **“Phygital: Catalysing innovation and entrepreneurship unlocking the potential of emerging production and business models”**, co-funded by the European Union under the Transnational Cooperation Programme Interreg V-B “Balkan -



Mediterranean 2014-2020” and national funds of the participating countries.

Phygital envisages the **pilot implementation, evaluation, and promotion** of an emerging production and business model, based on the **convergence of global digital commons of knowledge, software, and design, with local distributed manufacturing capacities**. This convergence has been codified as “**Design Global, Manufacture Local**” (**DGML**) and can be exemplified in the seed forms of many successful open design and commons-oriented projects.

To do so, Phygital aims to build the necessary **digital and physical infrastructures**, to connect the **global knowledge commons** with **local community-driven makerspaces**, equipped with distributed manufacturing machines. A series of open-design solutions to local challenges will be developed in Greece, Cyprus and Albania to catalyse and support creative entrepreneurship and livelihood, through creation of transnational synergies in entrepreneurial coalitions.

DGML models introduce **sustainable paths to innovation and entrepreneurship** and present a potential transition towards a **fairer, more open and inclusive economy and society**.

More specifically in Greece, the center of activities is the **agricultural sector in the region of Northern Tzoumerka**. Agriculture is a key activity in the peripheral and less-developed regions of the EU and a crucial productive sector. Especially in the broader region of Northern Tzoumerka, the majority of the local population relies heavily on agriculture and husbandry for their livelihood and economic activities. Due to the **unique geographical and territorial characteristics of the mountainous region** of Northern Tzoumerka, the focus is placed on small-scale, non-intensive and high-quality products, for which, however, **markets rarely provide**. Local producers have **limited access to appropriate machines** for their activities, as the cost of acquisition and maintenance is very high, while they **often have to adapt their techniques to the logic of the machines**, which are not apt for this type of production.

Simultaneously, agriculture is a field in which **ready-to-apply open source hardware and software solutions have already been produced** and, thus, can be implemented and improved. Considering the fragmentation of the existing abundant open source projects in relation to agriculture, the replication, sharing and improvement of solutions is hindered.

To facilitate interaction and create feedback loops among farmers, makers, designers and engineers, a **three-day international agricultural co-design and distributed manufacturing retreat** is organised. The event will build upon previous experience with creative teams from Greece and abroad **co-creating**



solutions with local communities. The event will now take place at **Tzoumakers**, a **rural makerspace** situated in the small mountainous [village Kalentzi](#), part of the village cluster of Northern Tzoumerka, a place abundant in cultural and natural wealth but scarce in the economic means of welfare.

The main aim of the event is to **familiarise the local community with open source technologies** developed and **demonstrate the potential and viability of open, collaborative makerspaces for the local agricultural sector**. This may create a network of open source software/hardware communities and local farmers that overcome barriers through knowledge diffusion and collaboration for their mutual benefit.

2. Invitation to apply

We are looking for **four (4) creative teams of designers, makers, farmers or enthusiasts** to join the event in Kalentzi and **co-create open-source, small-scale solutions for the agricultural sector**. Selected teams, of **up to four (4) persons per team**, will introduce their solutions to the local community and manufacture it with their help **in three days**, keeping local biophysical conditions in mind.

The general requirements for applications are:

- The teams, composed of up to four (4) persons, should be based in Greece or within the EU, while the solution may originate elsewhere.
- The solutions must be (or be made) available under an open licence (e.g. Creative Commons Attribution license - CC-BY 4.0).
- Each solution must be fully developed within three days or less, while the use of pre-assembled parts may be allowed, where appropriate.

The Municipality of Northern Tzoumerka offers:

- Covering of travel & accommodation expenses of up to four (4) persons per team, as well as cost of materials for the production of the solutions
- The facilities of Tzoumakers, comprising:
 - Metal-cutting bandsaw, angle grinders
 - Column drilling machine & hydraulic press
 - Electric welding machine, power & hand tool kits
 - Wood sander & cutter
 - FDM 3D printers, 3D scanner
 - Raspberry Pi & Arduino kits
- A lump sum of 1.000,00 EUR, as “innovation prize” for each selected project



Please find below the selection criteria, timeline for this call, and information for applicants.

3. Selection criteria and conditions

The submitted applications will be reviewed and selected by the organizers and the local community in light of the criteria and the conditions described below:

- Does the solution fit with the **needs, values and principles** of small-scale farming systems?
- Is the solution **open, easily reproduced and adaptable**?
- Are the materials **low-cost, easily sourced and sustainable** for the local biophysical conditions?
- Is the solution developed according to **expressed user needs**?

4. Procedure and timeline

To apply for this call, please fill in the application form in [this link](#).

The **NEW deadline** for the submission of applications is **Friday, 9 August 2019 22:00 CET**.

The decision for the selected projects will be announced at the website of [Phygital project](#) by Monday, 12 August 2019.

The workshop will take place in mid-September (exact dates to be confirmed).

For queries, you may contact us at research@p2pfoundation.net

This event is organised in the context of the project [Phygital](#), co-funded by the European Union and national funds.

Organised by the Municipality of Northern
Tzoumerka

with the support of the P2P Lab

