Connecting Lika: DIGITAL COMMONS for RURAL DEVELOPMENT
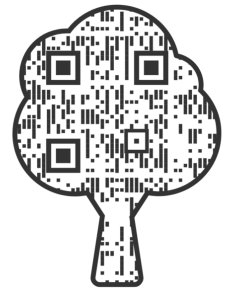
Connecting Lika: Additional Information

Summary

Practical goal is to bring internet connectivity to Gubavcevo Polje (a village in Lika, Croatia); while following "Environmental Justice in Tech" principles (Limitations / Reparations / Solidarity). in order to enable rejuvenation & reconnection of the remote rural communities.

Instead of buying a commercial connectivity solution, we want to build a wireless mesh network, owned and operated by the local community.

This project will consist of several elements: community coordination, technical solutions and putting ethical principles into practice.

Time planning / Phases / Outcomes = tangible results

Duration is 3 years: November 2023 - November 2026, and it consists of four phases:

* Phase 1: Exploration & Negotiations (1-9 Months) Time: November 2023 - August 2024

* * Phase 2: Building (1-3 Months) Depending on the phase 1 outcomes

* * Phase 3: Maintenance (0.5 - 2.5 years) Time: 6-24 months after the building.

* * Phase 4: **Final Review & Closing** (6 months) May-November 2026

This request is for the first two phases.

Budget

total: 15000€

Exploration Phase: 5000€

- expert fees for NVC mediators, for negotiations within local community (1000 €)
- travel expenses for the visit to local NGOs (100-500 € for the train ticket x 2 = 1000 €)
- stipend for core-team members who are self-employed (500 € per month per person x 3 months x 2 = 3000 €)
- pro-bono: accommodation in LikaLodge

Building Phase: 5000€

- equipment: antennas, servers, cables, poles, batteries, solar cells = 2000 €

- connectivity fees: 100€ x 12 = 1200€
- electricity costs (in case we do not get enough renewable solar energy) 15€ x 12 = 300€

- stipends for additional experts: 2x500€ = 1000€

Living expenses for 3 months of sabbatical leave, for me: 5000€

Future Funding

I will keep applying for additional funding. In the past, this effort was funded personally, by me, my family & friends.

I also applied for many other funds: (but not received any positive result yet)

* IEEE https://wiki.techinc.nl/File:IEEE_Application_Getting_Lika_Connected.pdf

* RiskTaker Fellowship https://wiki.techinc.nl/File:Connecting_Lika_-_Application_for_Risktakers_Fellowship_.pdf

* NLNET https://wiki.techinc.nl/File:Connecting_Lika_Grant_Application_for_NLNET.pdf

My Expertise

Although I have never done exactly the same project before, I have been involved in many activities relevant to this project:

1) community coordination

1.a In my professional life, I have been a Community Builder for last 12 years: https://nl.linkedin.com/in/becha/

1.b In Lika, I have been visiting my whole life (my father's family is native to this area), and I have organised a community gathering in 2016: https://wiki.techinc.nl/LikaCamp2016

1.c I've been part of the (Mesh)Network communities within hackerspaces & events such as CCC congress since 1997 https://wiki.techinc.nl/MeshNet

2) technical solutions

2.a I am an engineer, I have a Bachelors of Science diploma in Computer Sciences from School of Electrical Engineering, University of Belgrade (Serbia)

2.b. I've been teaching Internet Protocols courses since 1996
2.c I've contributed to the RFC about "**Alternative Network Deployments" https://www.rfc-editor.org/rfc/rfc7962**

3) putting ethical principles into practice:

For me, there is a very important philosophical / values element in this project; this has progressed over the years:

3.a In 2012, I wrote an opinion piece for an ISP publication (xs4all's "Internaut Cookbook"):
"Hackers and philosophers building an utopia together: participatory and altruistic network of the future"
Dutch: https://cdn.xs4all.nl/media/overxs4all/publicaties/The%20Internaut%20Cookbook%20app%20XS4ALL.pdf English: https://becha.home.xs4all.nl/hackers-philosophers-utopian-network-dec-2012-becha.pdf

3.b. In 2017, I've given multiple lectures about "Ethics in Technology", at FOSDEM, SHA2017, BalCCoN... https://youtube.com/playlist?list=PLJD5uaec7bwyDUPN7VJOHiEzcAYd2x9XS

3.c. In 2022, I wrote multiple articles about Climate Justice in Tech https://labs.ripe.net/author/becha/a-plea-for-climate-justice-report-from-the-iab-workshop-on-e-impact/

Additional Expertise

I am closely connected with many communities, from which additional experts will be "recruited" :
* technical communities: IETF, NOGs, FLOSS developers, SEE, RIPE...
* Adjacent groups: hackers, academic researchers, OffDEM, /etc, NVC
* Marginalised groups: women, refugees/migrants, artists, activists (XR), neurodiverse, chronically ill, LGBTQ*, rural citizens

• I am a co-creator / founder of "UnCivilization", a critical-tech community: wiki.unciv.nl // unciv.nl

• Since 2013 we have in-person meet-ups & wiki pages & a mailing list: * https://wiki.techinc.nl/Hackers_tribes // https:/
  * events: https://wiki.techinc.nl/LikaCamp2016
  * mailing list: https://lists.puscii.nl/wws/info/uncivilization

Similar Projects

There are many examples of similar successful projects, that I collected & documented over the years, here: https://wiki.techinc.nl/MeshNet#Rural_Networks

I have been researching other solutions, and here are 3 concrete examples of what I am NOT interested in doing — while they do have some elements that are suitable; I might borrow the ideas & work together with them:

* RuralNet: Croatian, Commercial, based on optical fiber, state-owned (or state sponsored) https://www.ruralnetwork.eu/hr/o-nama/

* Rhizomatica: Very successful with community, I have been working with them, but it's based on mobile technology : https://wiki.techinc.nl/Rhizomatica_Community_Telecommunications_Infrastructure

* off-grid micro-net: Ideologically perfectly right, good tech tips, but not yet successful: https://anarchosolarpunk.substack.com/p/offgridinternet

* GuifiNet & other "alternative networks" from RFC7962 https://guifi.net/en

Technical Challenges

My project will not bring anything especially new to the world, only implement the existing solutions in the place that needs them.

Specific Technical Challenges

- getting "backhaul"

- securing renewable electricity supply

- negotiating with land owners for placing the equipment & towers

- finding "lines of visibility"

- securing refurbished equipment (that is at the same time low-power-usage) https://wiki.techinc.nl/User:Becha/Lika/ProjekatPovezanoPolje/1.0#Technical_Challenges (ecosystem)

Social Challenges

The project will be performed in cooperation with family, local community, local NGOs, emigrants, international communities of hackers, activists, artists and friendly experts. I am aiming at 3-5 core project members; the duration is 3 years & it's split in 4 phases; prior promotion will include multiple local & international conferences, and final reporting on the project outcomes, plus progress reports to Funders.

More about ecosystem: https://wiki.techinc.nl/File:PDF_Getting_Lika_Connected_1.0.pdf

For example, I have presented the project at offdem in Brussels, 4-5 February 2023: https://wiki.techinc.nl/File:Getting_Lika_Connected_1.1_offdem-new.pdf

I am in contact with the local NGO "Udruga Prospero": https://www.udrugaprospero.org/wordpress/

I am also relaying on the support of my connections in the village, in the world of hackerspaces, network operators, funders of the Digital Rights & Climate Justice projects, permaculture activists, electronic artists, NonViolent Communications mediators, and next- generation (digital) nomads.

The effects of the project will be enjoyed by the local community for the next 5-10 years.