OLL
Open Land Lab

FAB REGION Südburgenland

„Rural areas
are the place of radical change“

2025-07 @ FAB25

www.openlandlab.org

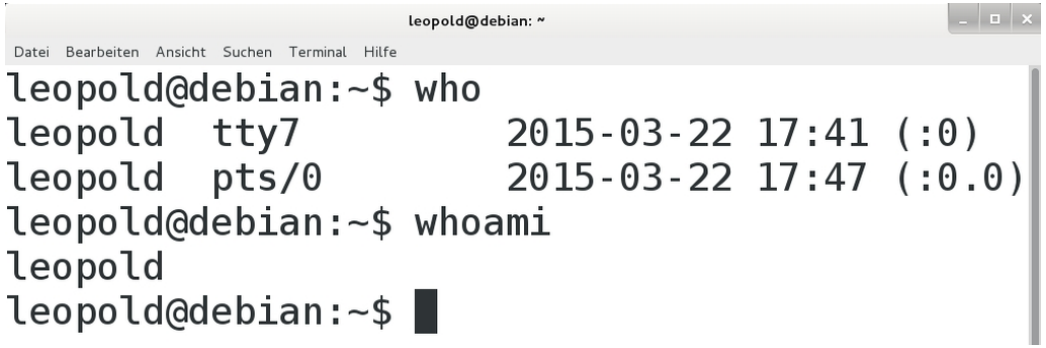
OPEN HARDWARE NOW!

who am i

- born as digital native in Vienna
- 1 Daughter (first member of **OpenLandLAB**)
- Communication Engineering & Electronics
- 1979 – 1987 Hardware Support (really big Computers)
- 1987 – 1990 Software Support Mainframe
- 1990 – 2003 Hardware & Software Development
- 2004 – Software Development Management
- 2019 – OPEN HARDWARE NOW!

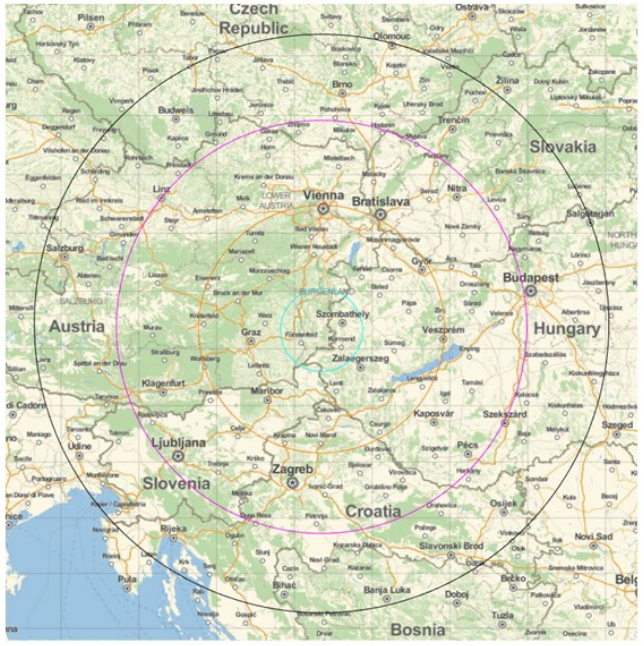
2^n+1 research
+ implementation

OpenLandLAB



open source hardware

CENTRE OF EUROPE



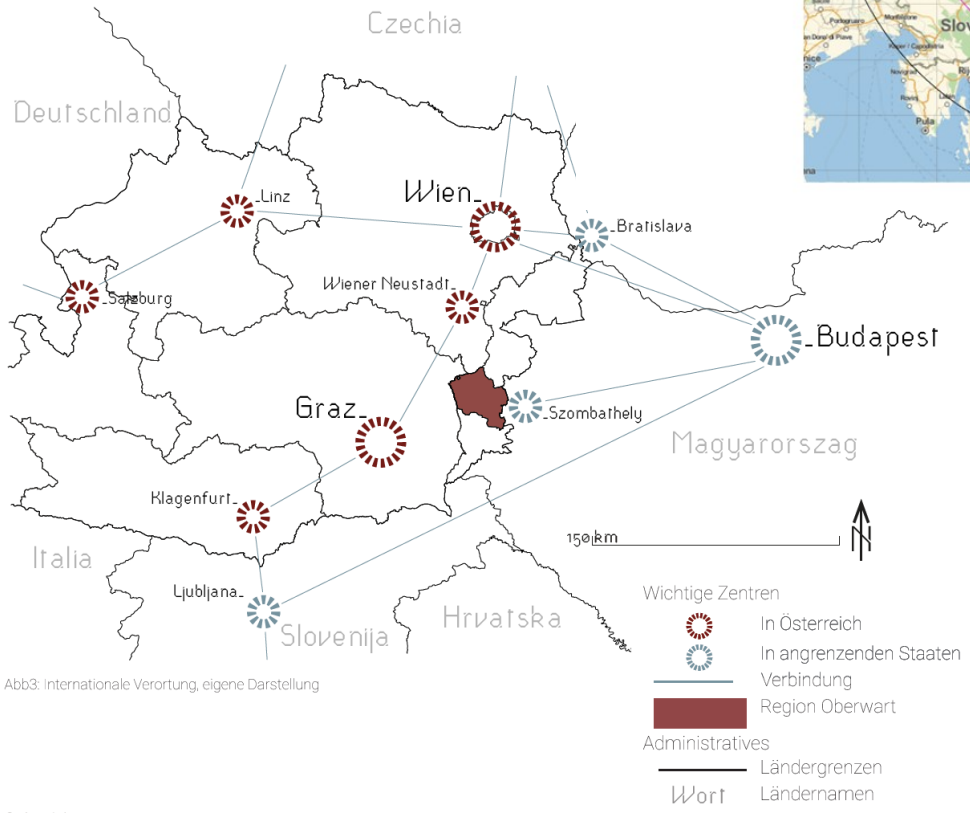


Abb3: Internationale Verortung, eigene Darstellung

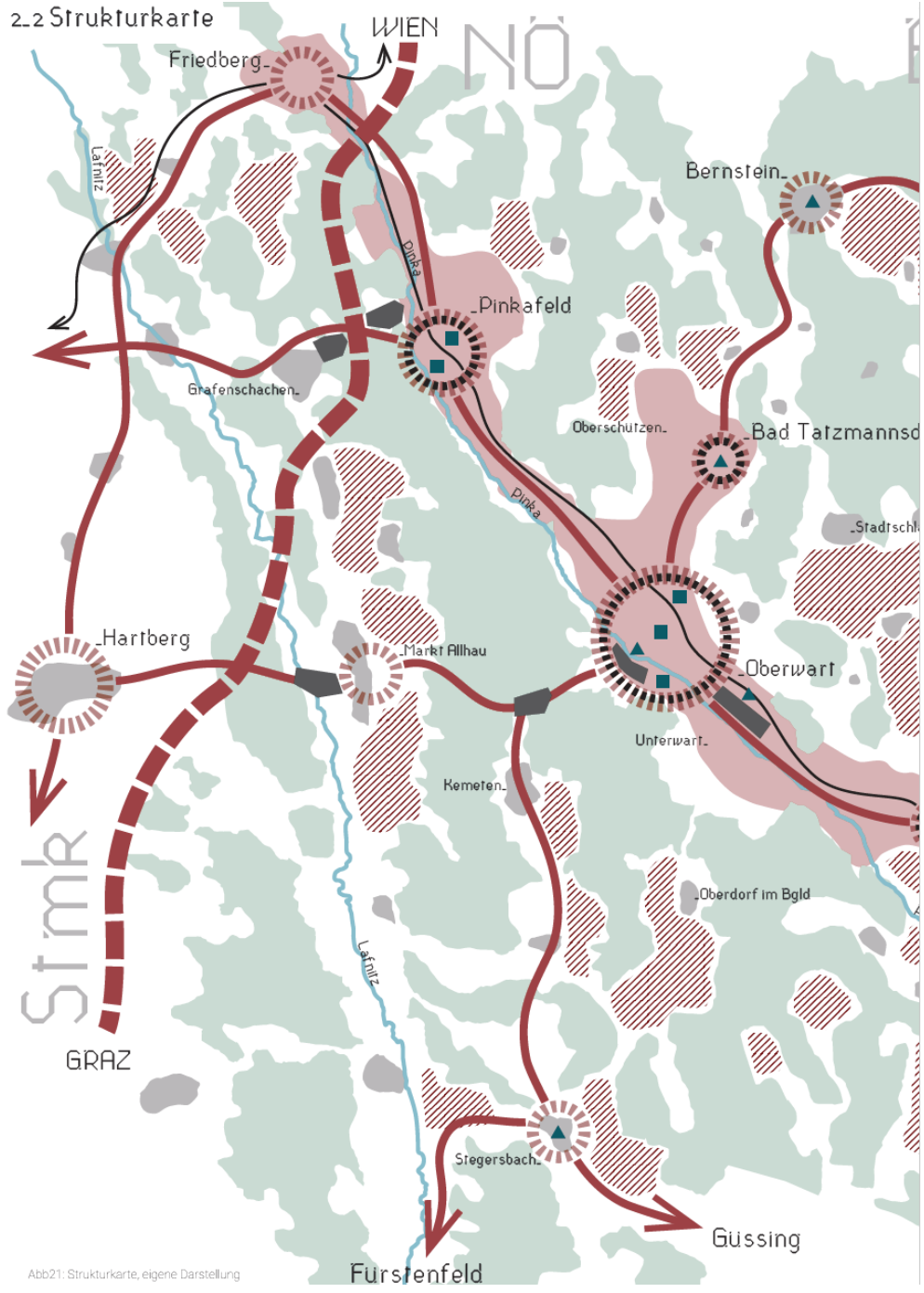


Abb21: Strukturkarte, eigene Darstellung

Ansicht SW

Brunnen und Schuppen

Ansicht SO

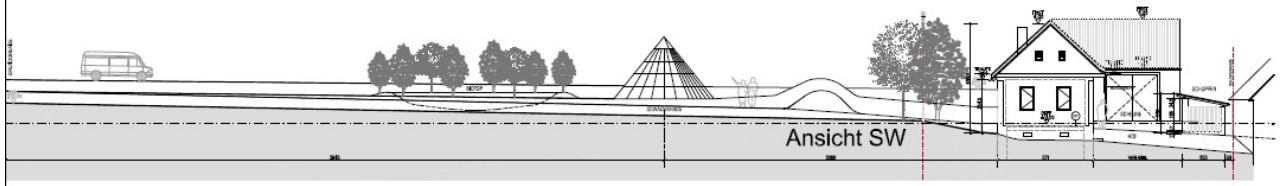
Pyramide /Keller

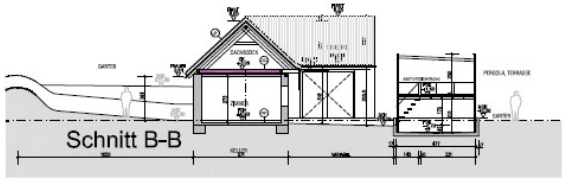
Ansicht NO

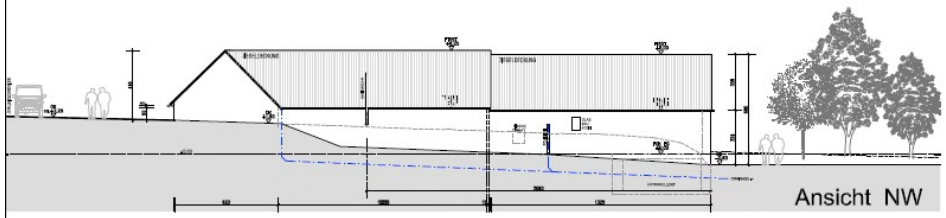
Ansicht NW

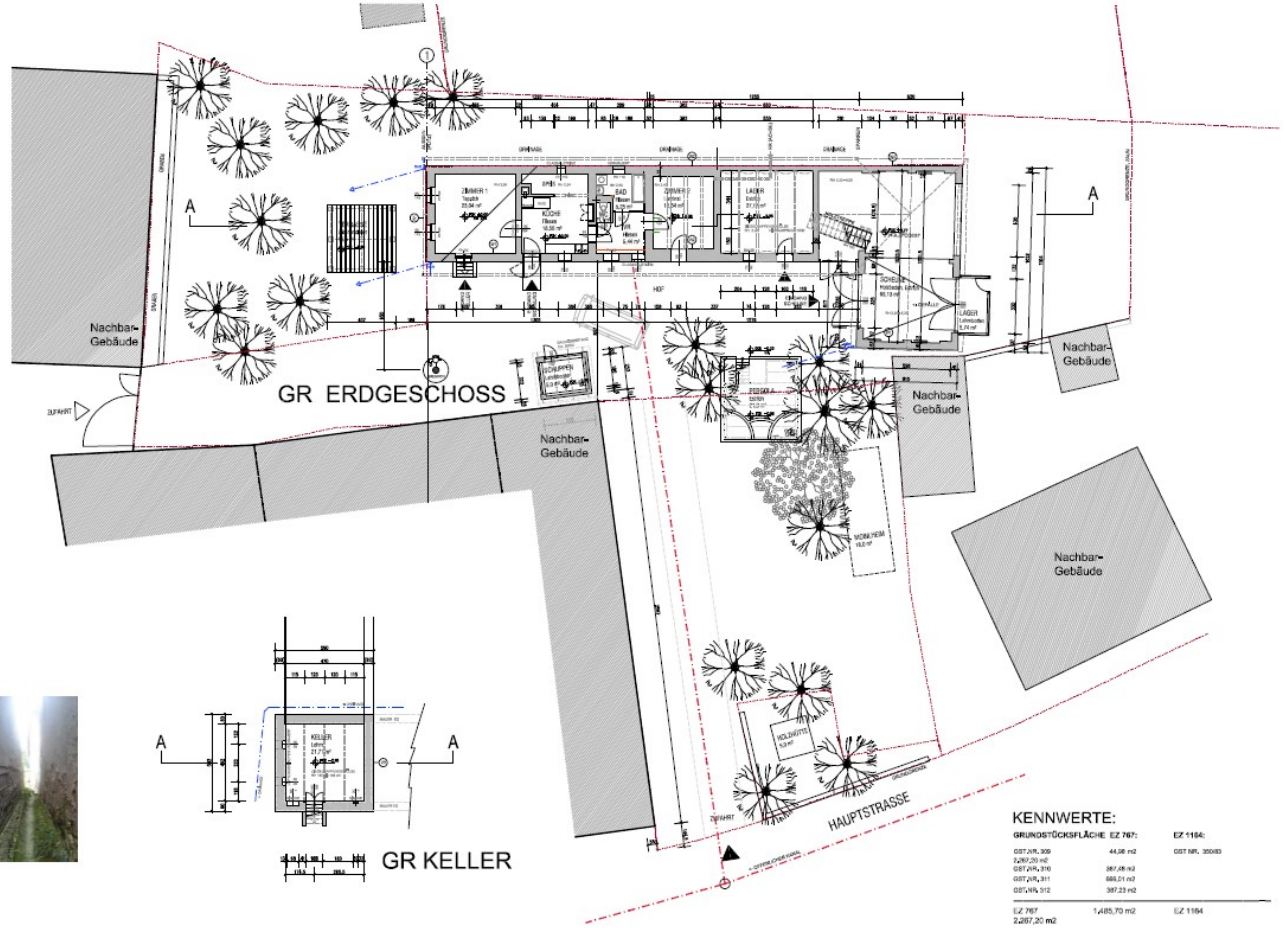
Ansicht NW

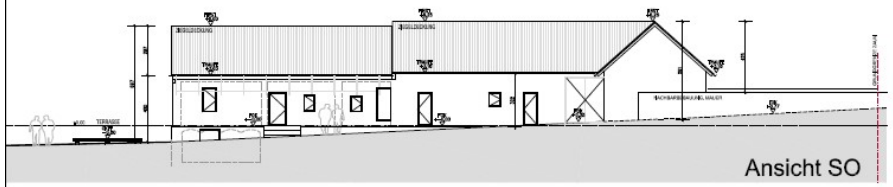
LUFTBILD

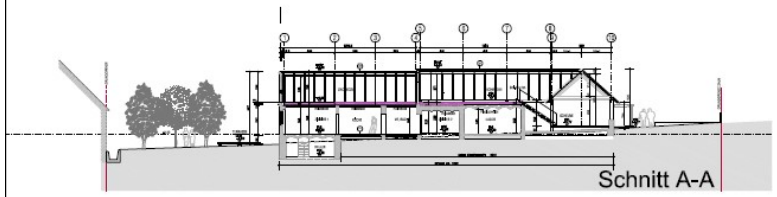








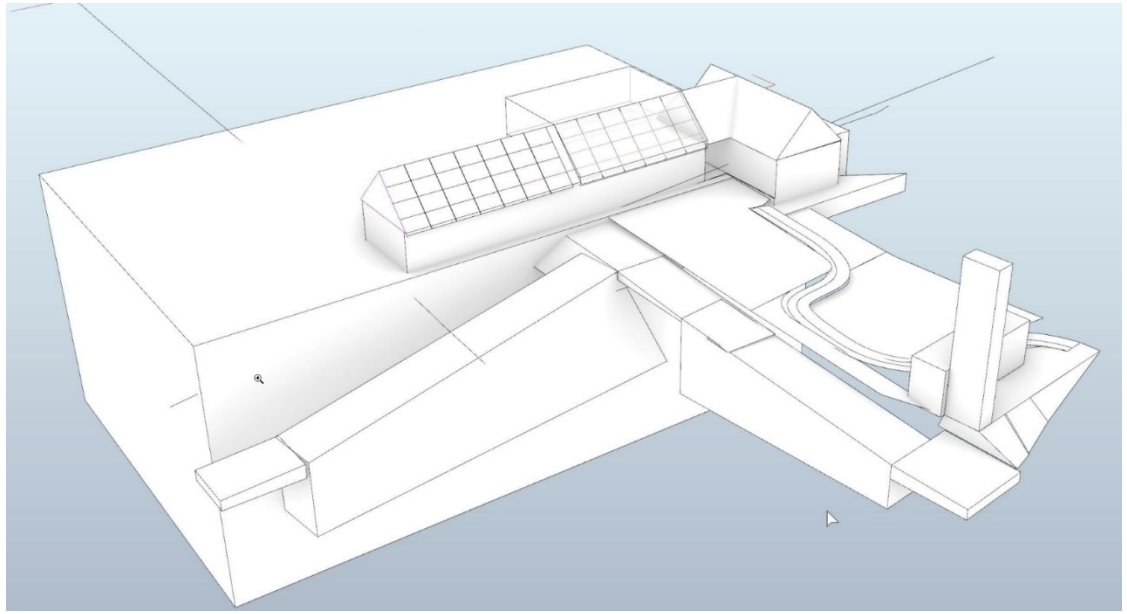


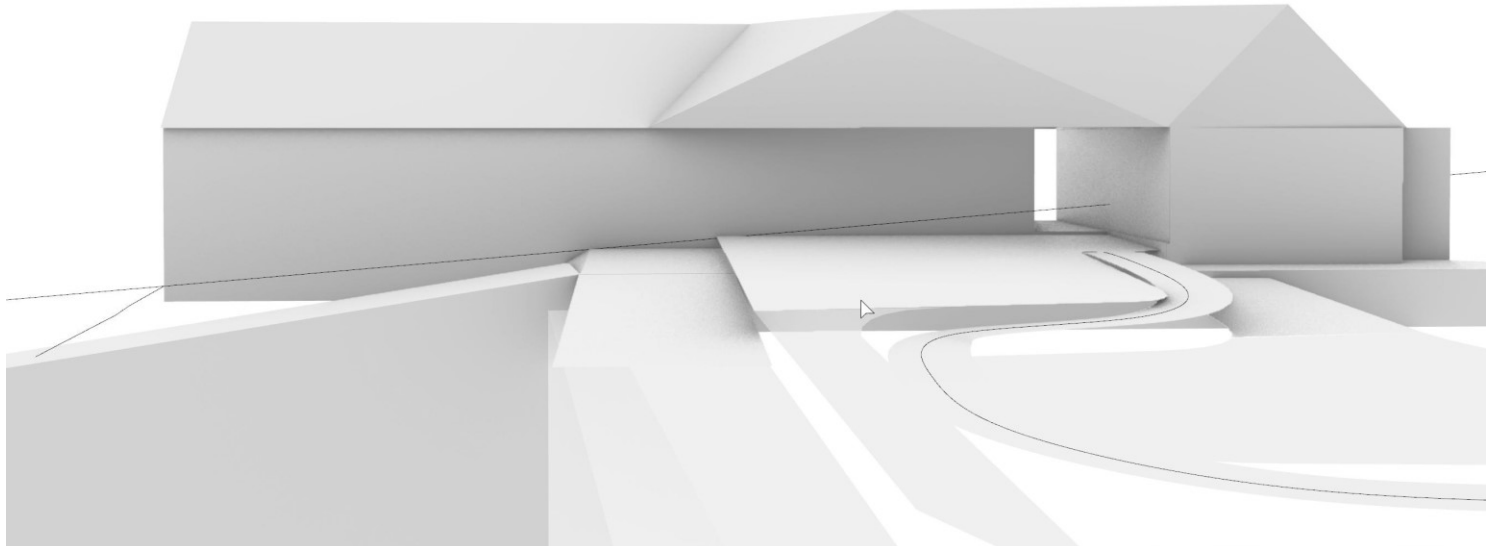


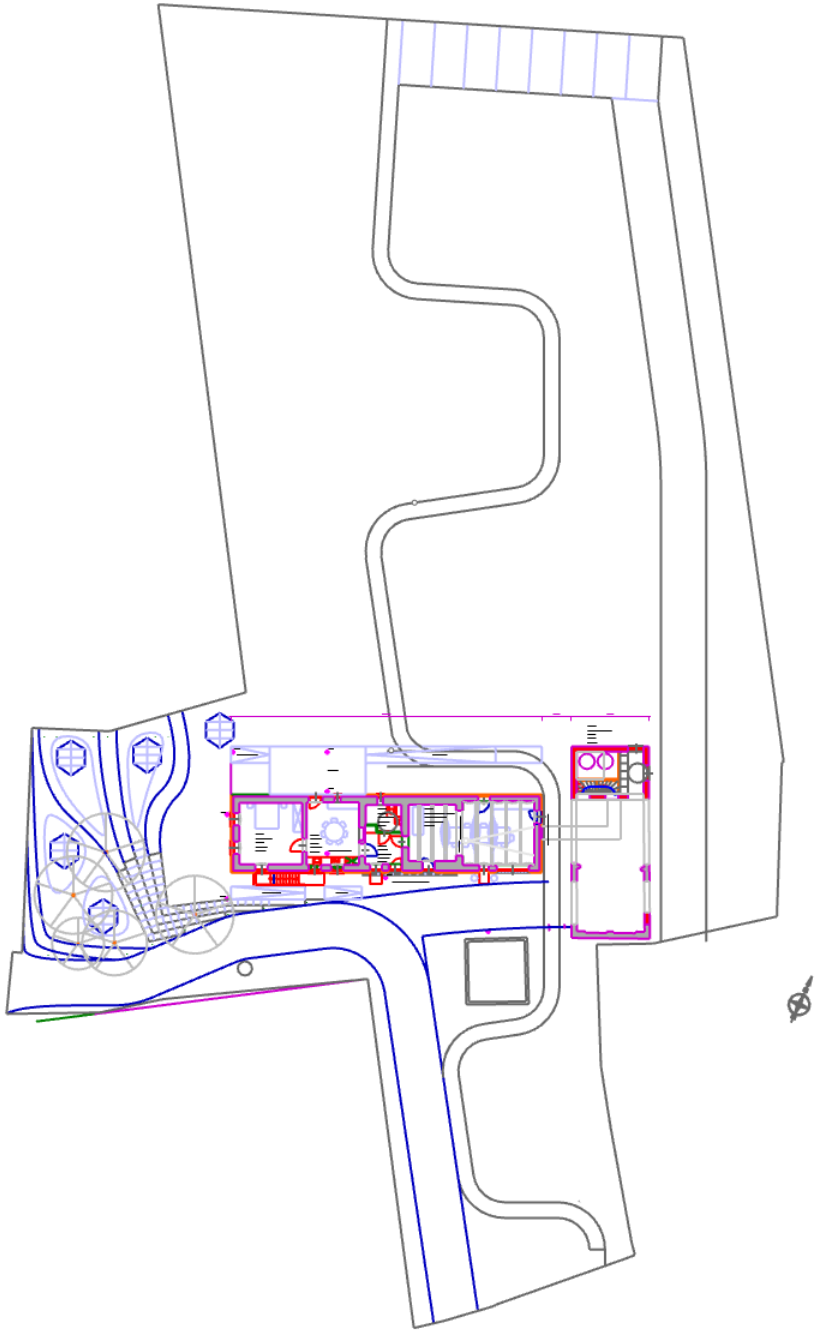
KENNWERTE:

GRUNDSTÜCKSFLÄCHE EZ 767:		EZ 1164:
GST./NR. 309	44,98 m2	GST NR. 35083
2,267,20 m2		
GST./NR. 310	367,68 m2	
GST./NR. 311	660,01 m2	
GST./NR. 312	397,23 m2	
EZ 767	1.485,70 m2	EZ 1164
2,267,20 m2		

Vertical Permaculture?







Die Teilnahme ist kostenlos!
Anmeldung unter contact@openlandlab.org
sowie unter Tel. 0699 /1024 1032

DER MEHRWERT

Austausch Wissen vom Land – Wissen aus der Stadt
„Aus den vielen neuen Möglichkeiten und Ansätzen in Zeiten der digitalen Transformation vor Ort eine schmackhafte Zukunftssuppe kochen."

LIVEENTWICKLUNG EINER ZUKUNFTSLANDKARTE

„Nächste reale Schritte planen, nicht im Träumen stecken bleiben."

- Eine Plattform für innovative Menschen in der Region schaffen
- Drehscheibe für jene, die mit genialen Ideen und unkonventionellen Projekten „Zukunft" aufs Land bringen

DREHORT FÜR KINOFILM

Filmaufnahmen während der Veranstaltung für den Open Source Film „Smart Country" von Produzent Stephan Kanduth

IMPRESSUM OpenLandLAB, Leopold Zyka, Hauptstrasse 8, 7512 Kirchfidisch, ZVR-Nr: 057729551

VERANSTALTER

OpenLandLab
GIVE
Institut für Paradiesgestaltung
in Partnerschaft mit unaVision International

SPONSOREN

easyname Österreich
MARKSTEIN
KUKUK BILDEIN

PARTNER

FairCoin
SILKROAD4.0
iMM INDUSTRY MAKERS
ICP INSTITUTE FOR CONVIVIAL PRACTICES
IoT AUSTRIA
fairkom
creative commons austria
pioneers of change
progressNETZ - Netzwerk für regionale Entwicklung
WunderWuzzi
Otelo Offenes Technologielabor
ARGUMENTO KULTUR- UND KUNSTVERMITTLUNG
OpenFabNet

Mehr Informationen unter www.smartcountry.at

THINKCamp

SMART COUNTRY

ThinkCamp zu ländlichen Lebensperspektiven und zur digitalen Transformation im Südburgenland

Samstag,1. Juli und Sonntag, 2. Juli 2017

MEDIATHEK, Hauptstraße 113, 7521 Bildein

AUFTAKTVERANSTALTUNG FÜR ÖSTERREICHWEITE SMART COUNTRY-AKTIVITÄTEN

Repair Cafe´

O L L
p a a
e n b
n d

Seit 2017
Mischendorf, Güssing,
Großpetersdorf, Jennersdorf,…

Innovation in the Barn

@Makerfaire Vienna 2017, 2018, 2023

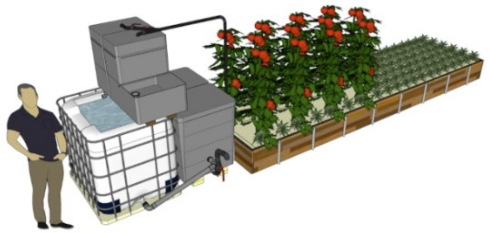
https://www.youtube.com/watch?v=pDWyXCbuixc

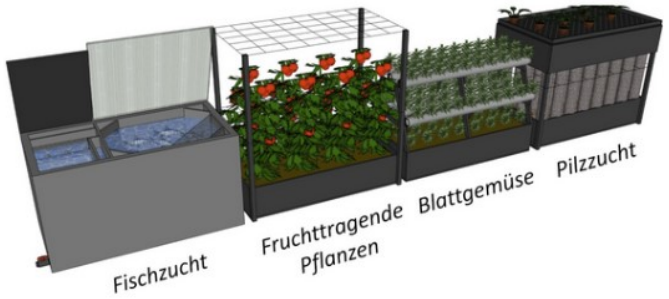
OpenLandLAB Masterplan

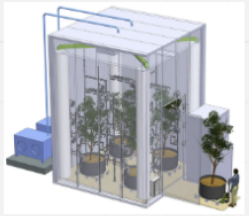
Microfarming
Tiny Labs
Self-sufficiency
The Things Network
WOOD WIDE WEB

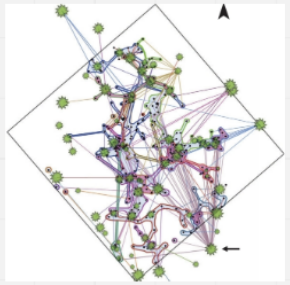
Fieldtests
PoC, MVPs,

Bionic
Biomaterials





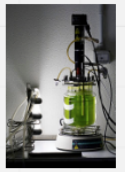




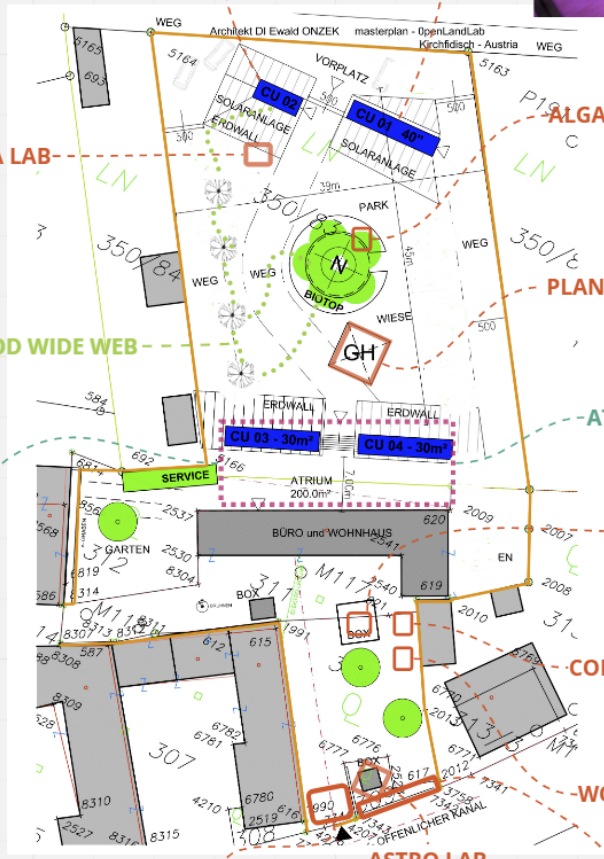
BIO LAB

FOOD SERVER

ALGAE LAB



TIERRA LAB



PLANT PYRAMID

WOOD WIDE WEB

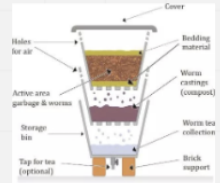
ATELIER (HYBRID PERFORMANCE LAB)

ART LAB

FUNGI LAB

COMPOST LAB

WORM LAB



ASTRO LAB

eCAR PORT

MEDIA FACADE?

THE THINGS NETWORK

Participatory Conference 2023

NETZWERKEN

1. Mitmachkonferenz im Südburgenland

ERSTELLT AM 12. NOVEMBER 2023 | 12:00
LESEZEIT: 3 MIN
ANMELDEN, UM ARTIKEL ZU SPEICHERN

Bertie Unger

Die 1. Mitmachkonferenz geht in der FH Pinkafeld über die Bühne.

FOTO: Leopold Zyka

Startups

OFERA
organic food era

Become a cycle farmer too and take your step towards self-sufficiency Benefit from your own fish and vegetables from your garden , feed your fish with home-grown feeder insects, upcycle waste from the kitchen and use the nutrients obtained to fertilize your vegetable plants.

Azolla Ecosystems was born out of the need to question and improve current methods of food production with customized aquaponic ecosystems. Participate in the development of future food production.

FashionTouri

“Shop like a local - as FashionTouri!” FashionTouri is the **first social network for fashion and design lovers** who enjoy traveling and want to discover local brands away from the mainstream.

led4worlds

Develops and produces industrial luminaires with a color spectrum Invention of the “Fibonacci luminaire” as a growth energy source for a higher yield range than conventional luminaires.

7ENERGY

Community energy association for renewable electricity
In our non-profit association, members share their surplus electricity directly with each other - fairly priced or even given away. No electricity companies, no middlemen - simply from person to person.

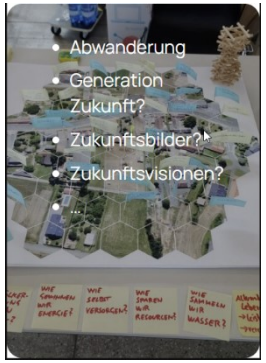
OSD
Music in a Moment

The future of music
We are presenting our revolutionary multimedia data carrier, the Offline Streaming Device - OSD, to the public for the first time. By using the latest technologies from the fields of NFC, Bluetooth and UWB, we have created a new multimedia data carrier that can be operated without batteries by placing it on an inductive field.

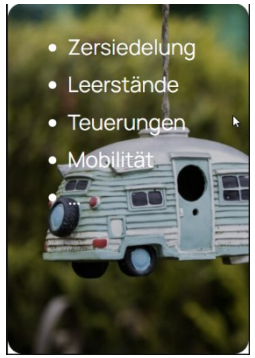
Topics

Future of Nutrition

Smart Village

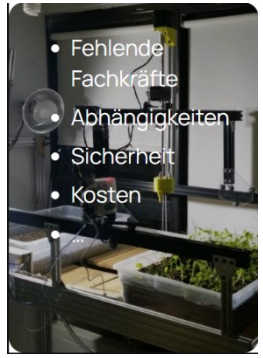


Future living

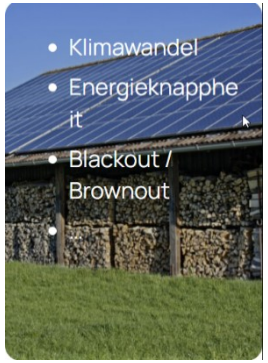


Circular Economy

Digitization



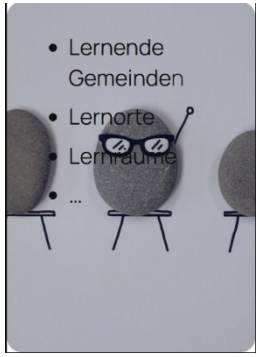
Future Energy



Forest of the Future

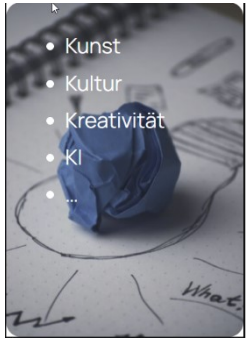
Soil / Water

New Learning



Open Innovation

Art Thinking




Circular Design
Revolution
Harald Gründl, AT

http://www.idrv.org/publications/tftdr/

Image Credit: iFixit.com

Right to Repair: 6 Design for Repairability Principles

Tony Elkington
Bioregional Regeneration Through Collective Imagination

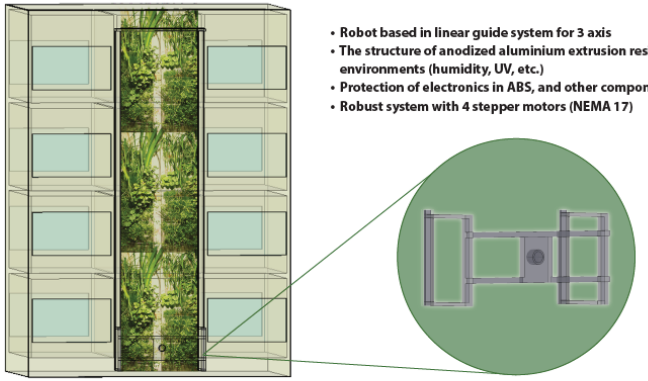
Smart Farming

FarmBot ++

Re-Design of the „FarmBot"

https://farm.bot/

Leopold Zyka, Johannes Kisser
www.openlandlab.org, www.alchemia-nova.net
contact@openlandlab.org, office@alchemia-nova.net



- **Robot based in linear guide system for 3 axis**
- **The structure of anodized aluminium extrusion resists at extreme environments (humidity, UV, etc.)**
- **Protection of electronics in ABS, and other components**
- **Robust system with 4 stepper motors (NEMA 17)**

vertical plant production with wastewater - high precision farming - controlled-environment agriculture
artificial intelligence - open hardware - OpenAG - Farmbot

Resilient cities use available resources on-site. Irrigation water and fertilizer for urban plant production can be gained by domestic wastewater, when treated appropriately in constructed wetlands. As well as plant production can be set up vertically, so can constructed wetlands. In order to ensure the quality of irrigation water for farms/gardens, electronic sensors are used. Data deriving from the sensors give feedback on the effectiveness of the system.
In order to guarantee maintenance and regulation of the system, a garden robot shall be used. We propose a re-designed robot, inspired by the "Farmbot", that can be applied in vertical areas.

Technical Data:

Size	120 cm width, length minimum 200 cm and maximum limited by wall height, 60 cm depth in the z axis
Weight	3 kg
Power consumption	aprox. 120 Wh per day
Power source	Photovoltaic-driven charging system at the top of the building (30 cm x 120 cm)

More information:

http://www.alchemia-nova.net/en/projects/farmbot/

Main capabilities:

- Vertical plant / crop production
- Irrigation water & fertilizer by domestic wastewater
- Quality control by electronic sensors
- Machine vision system
- Planting seeds and seedlings
- Harvesting and collecting harvested goods
- Weed control
- Sharing plant knowledge locally and globally https://openfarm.cc/
- Joining Open Ag Data Alliance (OADA) http://openag.io/
- Blockchain enabled (supply chain management)
- Local artificial intelligence system (machine learning)

Future prospects:

- Precision application of plant protection agents & fertilizer
- Extended sensor technology

Some parts / components will be under license

open source hardware · FFG · alchemia nova · FarmBot · Open Land Lab · 2n+1 research + implementation · sanlight

OpenEcoLab in Germany

3D Printing with Clay

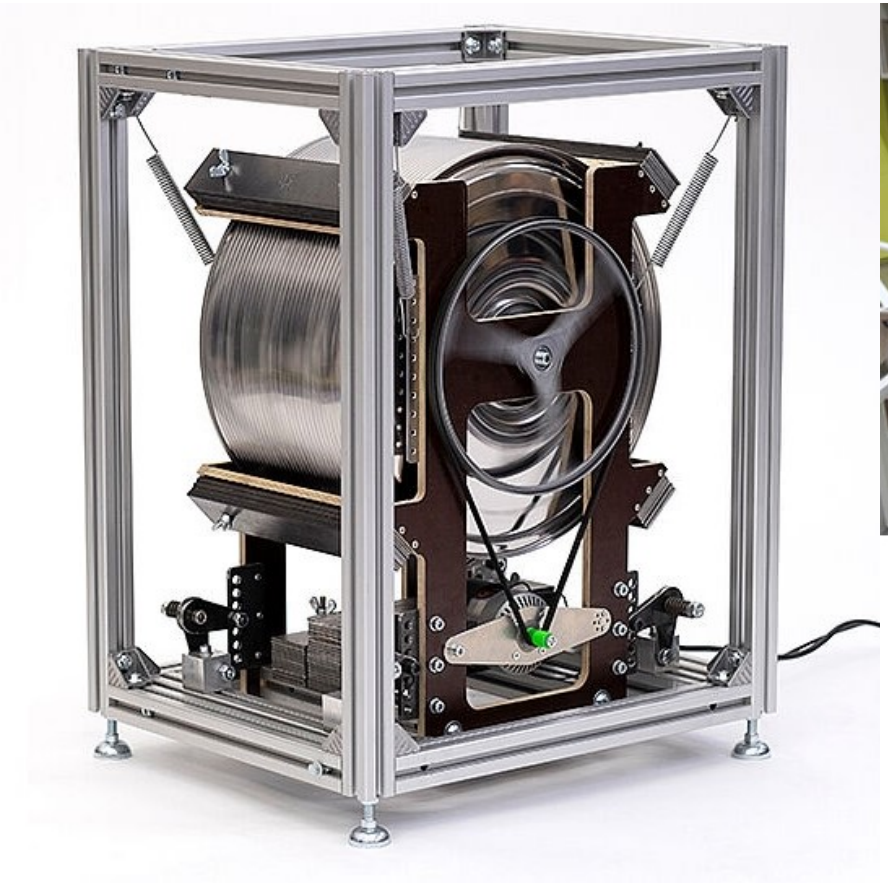
Aquaponic Self-Sufficiency

https://fischnest.mygreencity.at/

Minimum System

Centennial Washing Machine

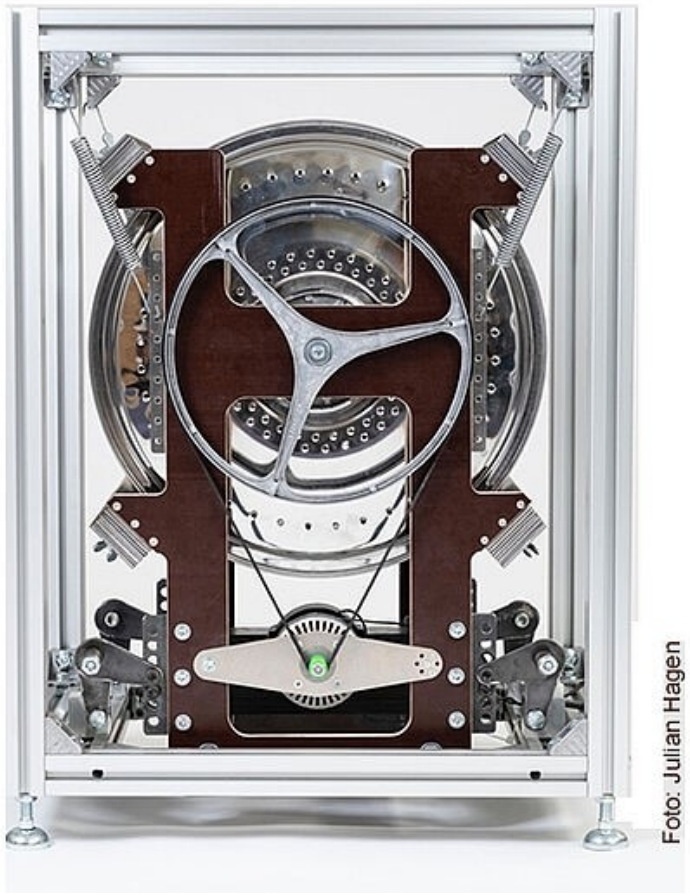
Sustainable consumption and production patterns demand maximization of resource efficiency over their entire life cycle.
The goal of the registered association Permanere is to research and develop sustainable products and solutions.



OCTOBER 30, 2020

TWO OF OUR EXPERIMENTAL SETUPS ARE EXHIBITED AT THE VIENNA TECHNICAL MUSEUM

We feel very honored to say, that VAB5 and VAB7 are exhibited under the same roof as Hein...



https://permanere.org/

MyGenWashy: Modernizing Old Appliances

We have **developed generic electronics** for **washing machines** that **modernize old appliances** and **integrate** them **into** a **Smart Home** for **monitoring** and **energy efficiency**.

Smart electronics can transform old physically working washing machines into sustainable, repaired & more intelligent appliances than before.

AISLER

IoT AUSTRIA

Farnell AN AVNET COMPANY

Mariahilfer i

www.mayermakes.at

By Clemens, Thomas & Patrick
Powered by Mayer Makes, IoT Austria & Mariahilfer i

Hackathon

https://www.youtube.com/watch?v=hsNMwX28xyA

Goal of the Hackathon

Generic electronic components
Development of a universal control system for washing machines

Gain knowledge
Understanding and documenting the components of a washing machine

Smart Home Integration
Connection to modern home automation systems

Open Product Pass => http://odpp.at/ (July 2025)
Create & customize digital documentation for CURRENT products
Circular economy

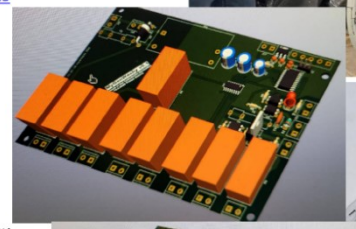
Results of the Hackathon

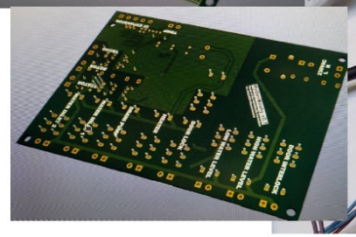
Schematic for circuit v1/3
GitHub - mayermakes/MyGenWashy: Generic washing Machine Controller - Result of the TuttleButtle Hackathon 2025

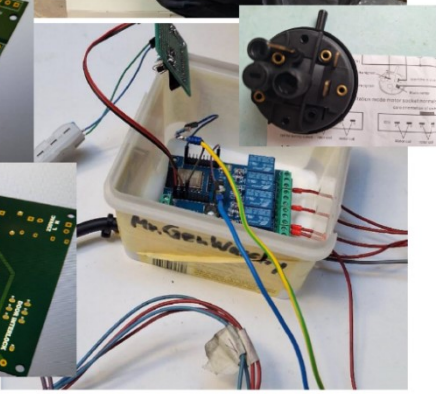
Component list v1/3
Complete component documentation

Board v1/3
PCB design for the MadWashyMax Edition

Smart Home Integration
PCB design for the MadWashyMax Edition
(intermediate Version here – will be updated once PCB Board v1 is here …)







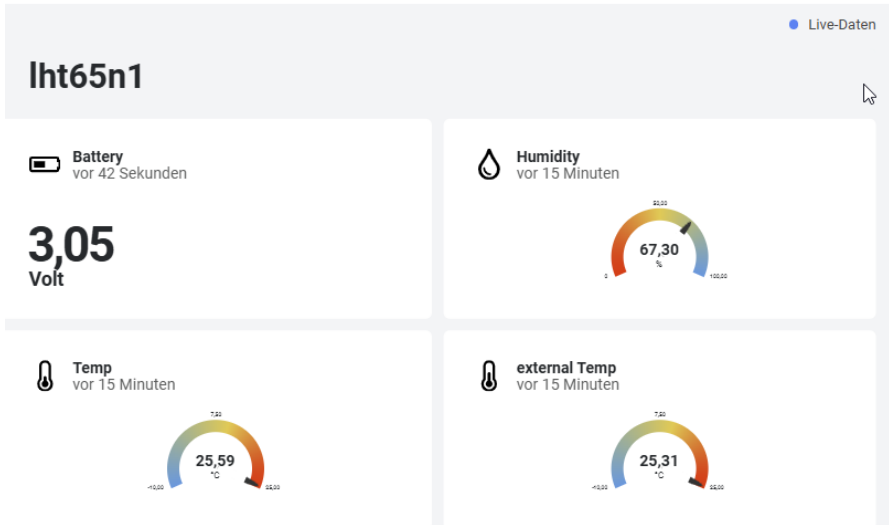
LoRaWAN

THE THINGS NETWORK

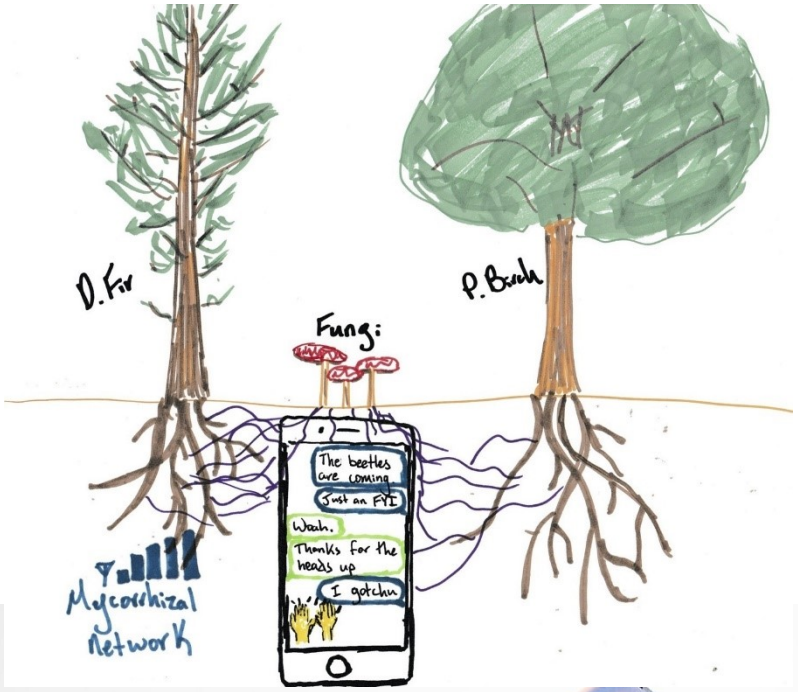
THE THINGS STACK

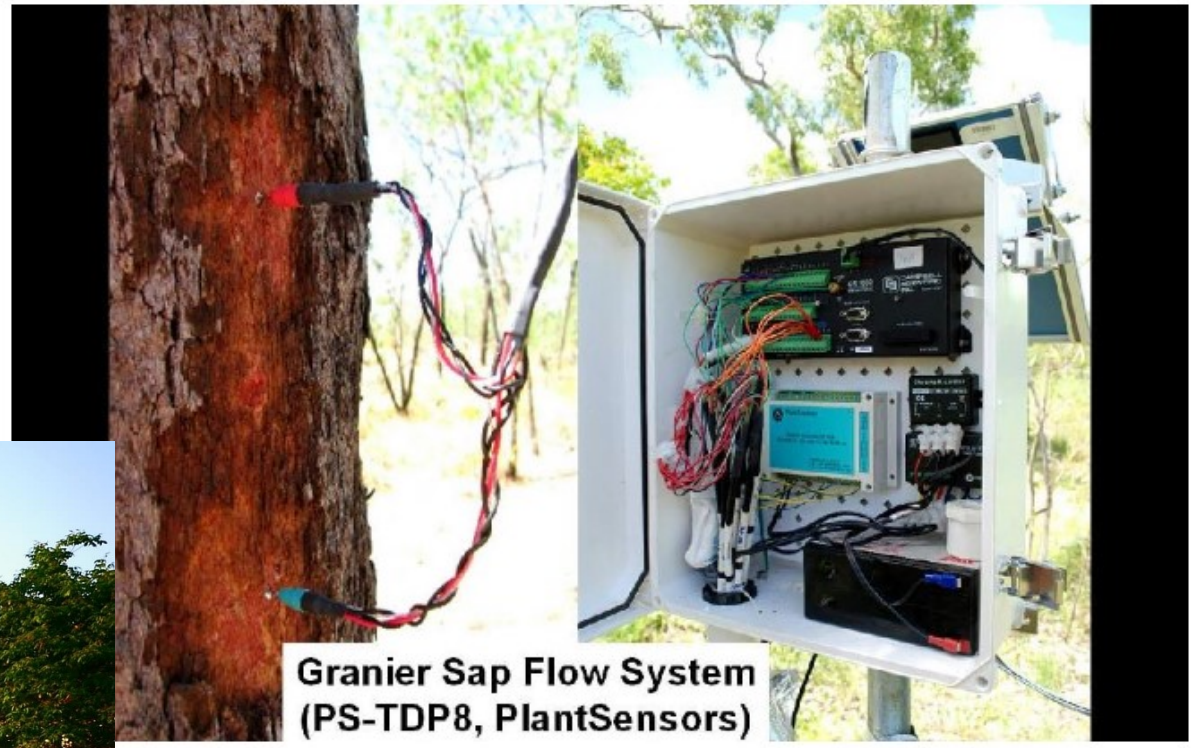
OpenLandLAB The Things Network

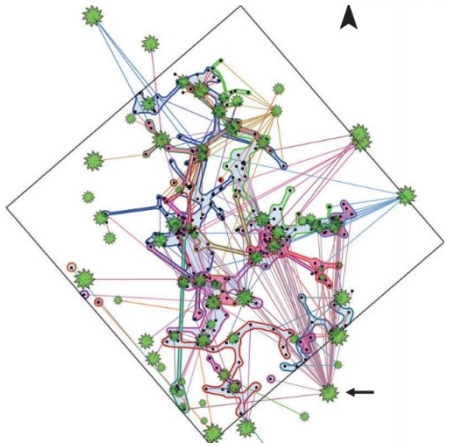
https://www.openlandlab.org/ttn/



CONNECT TO WOODWIDEWEB





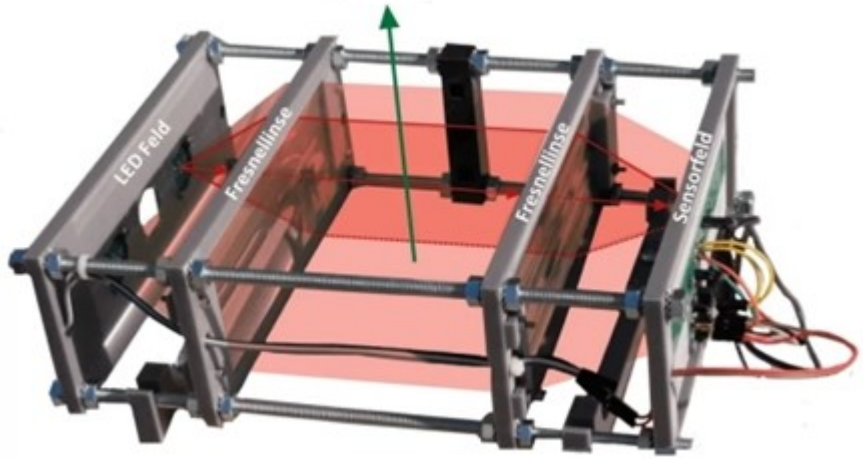


KInsecta

https://kinsecta.org/

SDG

direction of flight



MAPPING Ressources, Potentials

Map of Tomorrow

https://www.kartevonmorgen.org/en/home/

INITIATIVE

OpenLandLAB

Makerspace, Fablab,
World Repair Cafe´,
Open Source Innovation,
Think Camp Smart Country,
Design Future Village

4369910241032
contact@openlandlab.org
openlandlab.org
Hauptstrasse 8, 7512 Kohfidisch
Route

#circular-economy #fablab #future-village #maker #makerspace #offenewerkstatt #open-source #open-source-hardware- #openlab #openlandlab #regpis #repair-cafe #repaircafe #reparatur #reparieren #smart-country #smart-farming

Nachhaltigkeitsbewertungen

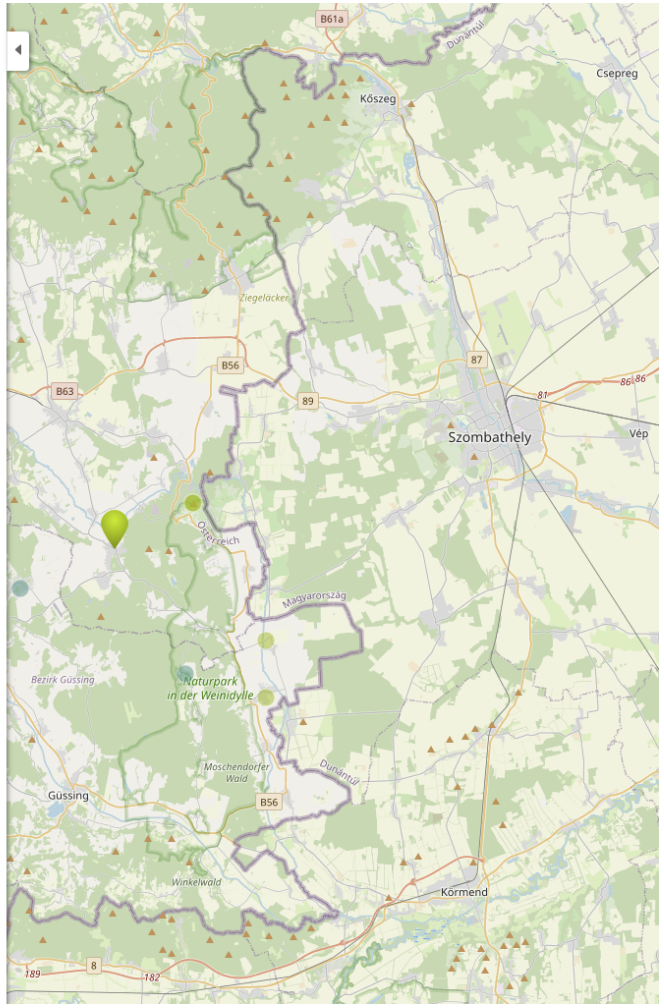
Bewertung abgeben

Erneuerbarkeit

visionär: **Open Hardware NOW!**
Durch Open SOurce zu Circular Economy
Quelle
Kommentieren

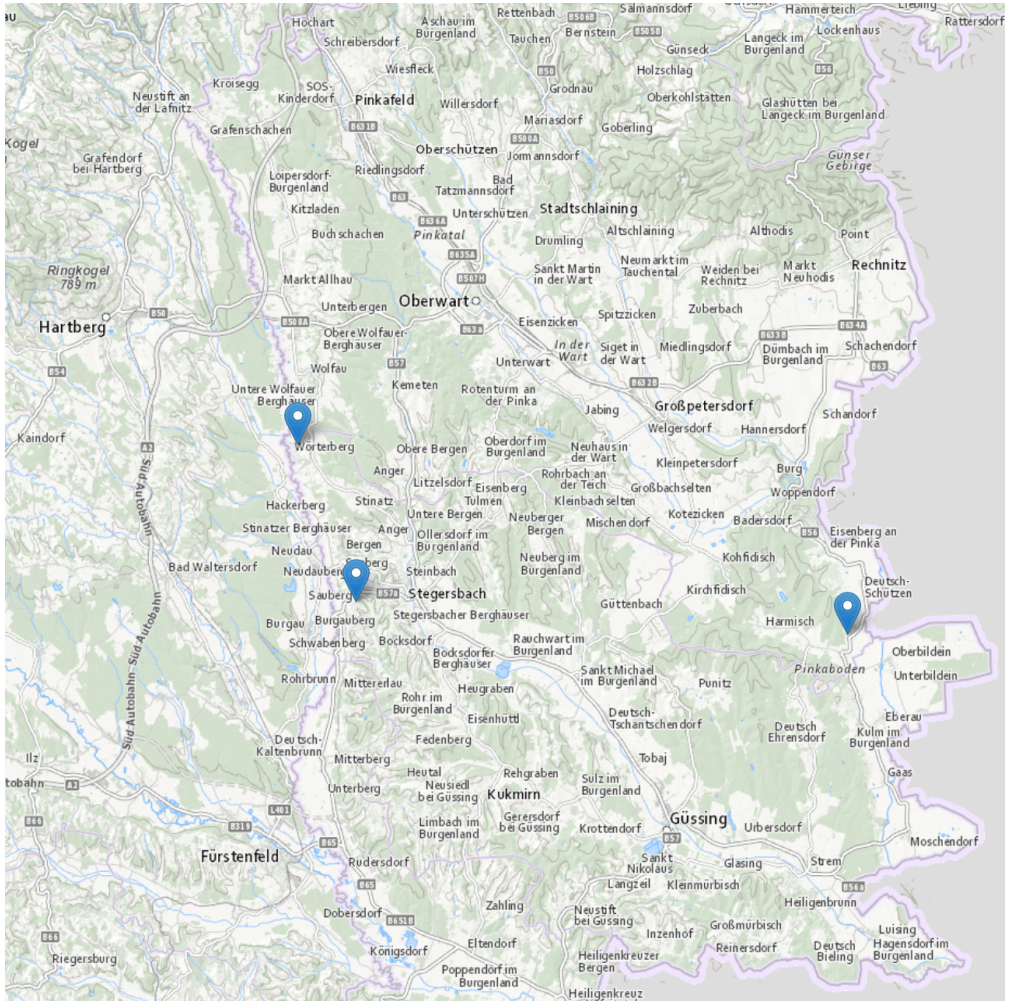
Mitgestaltung

von morgen: **Frugal Academy**
Top notch organization
Kommentieren



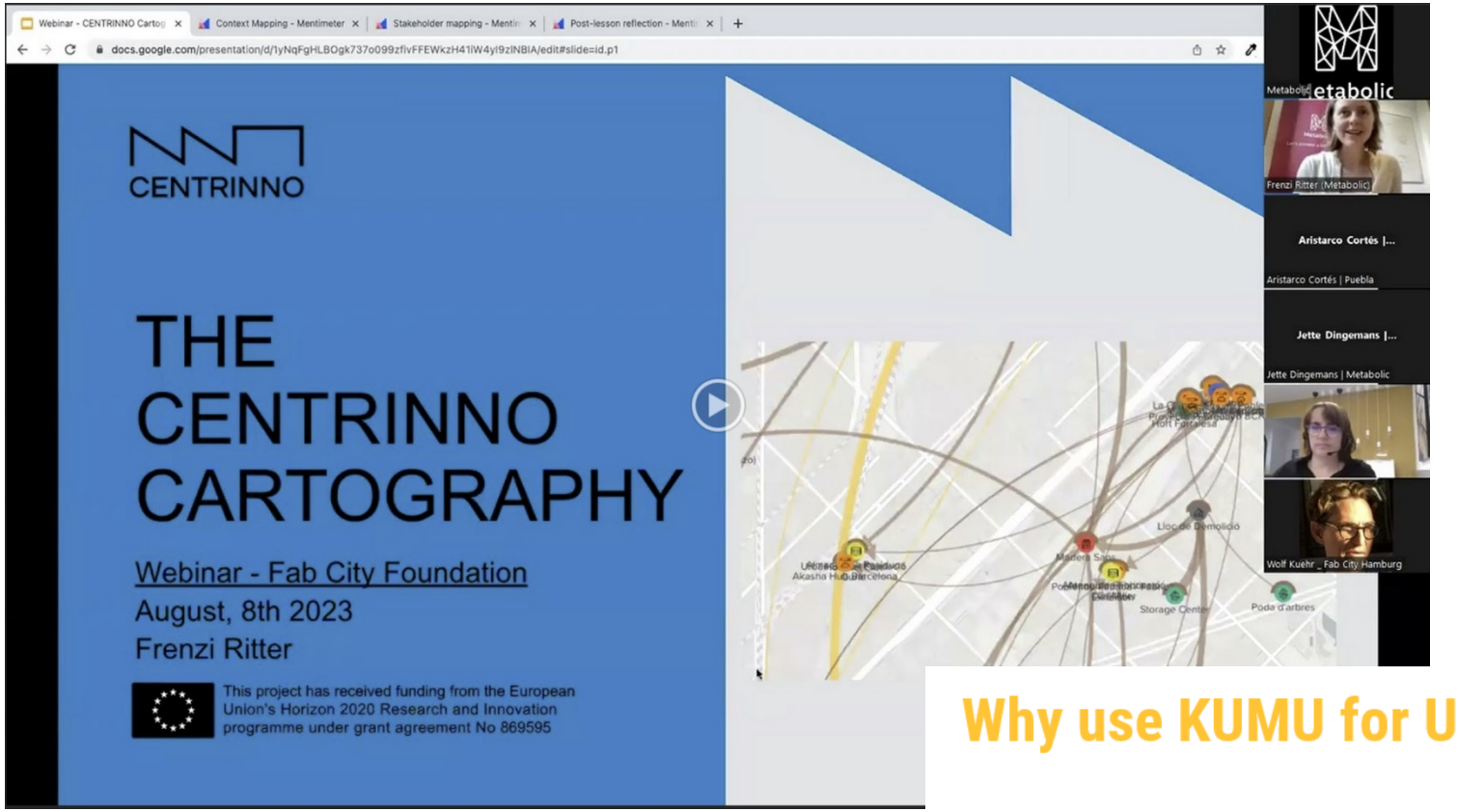
FoodCoops

https://foodcoops.at/map/



MAPPING the Circular Ecosystem

https://centrinno.eu/event/centrinno-cartography-webinar/



Why use KUMU for Urban Ecosystem Mapping ?

KUMU is an open-source tool to map systems. It allows you to map stakeholders and relationships between them. But you can also use it to visualize material flows between locations or organization or any other types of data that would otherwise sit in a spreadsheet. Being unpaid, accessible and flexible, KUMU is a great tool to display stakeholder maps or networks and communicate synergies in **circular ecosystems**. One of KUMU's main advantages is the option to show stakeholders or material flow networks on a spatial map and flexibly design beautiful maps with custom icons, images and styles - something that other open mapping platforms do not allow.

FabCity / FabRegion

https://fab.city/

What is Fab City?

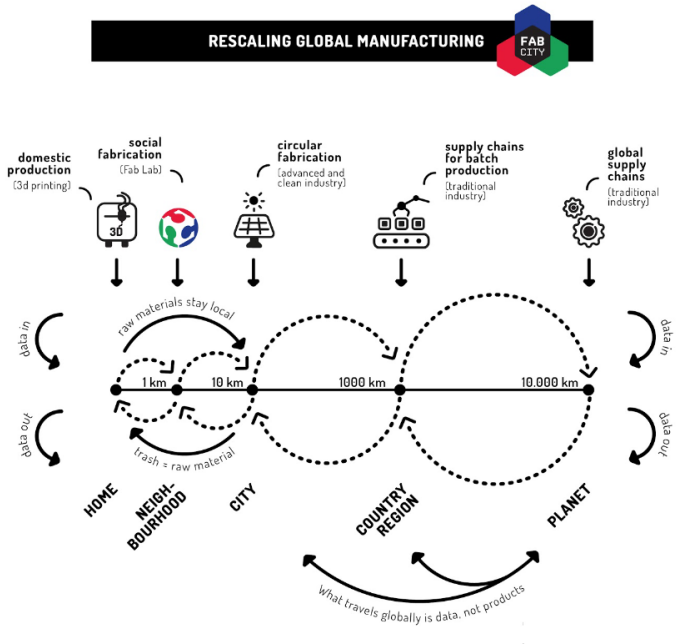
Fab City proposes a new urban, economic, social and industrial model that relocalises production to the city and its bioregional context. It is a challenge to transform how we produce and consume (almost) everything. The provocation has grown into a global movement, which is facilitated by the Fab City Foundation, a Network of cities and a Collective of thinkers, makers, and innovators.

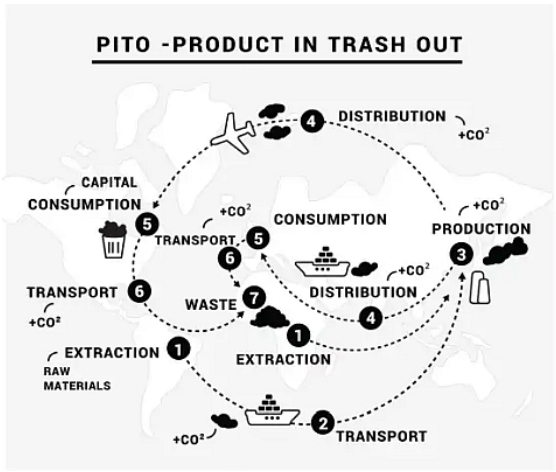
Locally Productive, Globally Connected.

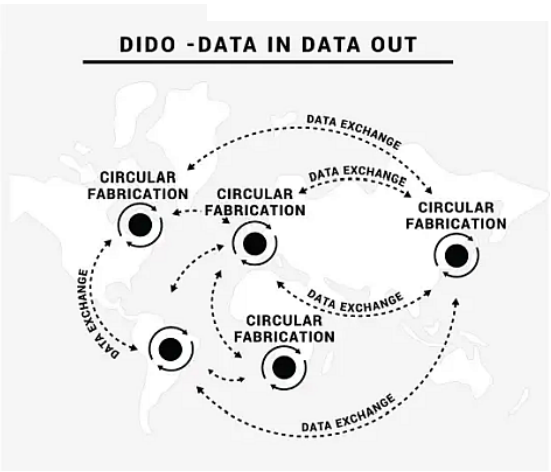
The transition towards productive and regenerative economies in regions and cities, driven by people.

FAB REGION
Südburgenland

https://www.youtube.com/watch?v=MarNFNbQ9qk







Sharing Global Knowledge through Digital Ecosystems

Applying Bioregional Development

Cultivating Networks of Communities and Citizens

Developing Shared Urban and Territorial Strategies

Enabling Impact-based Incubation at Local Scale

Designing New Forms of Learning for Skills of the Future

Developing Distributed Infrastructure Local Production

Roadmap

Rural innovation systems within the framework of the European Innovation Partnership

- Inventory
- FAB City Full Stack
- Creating Future Images

- Ressources, Potentials
- Bioregional Game
- Region Model Canvas

COOPERATIONS

FORSCHUNG Burgenland
RESEARCH & INNOVATION

https://forschung.hochschule-burgenland.at/en/

FAB CITY
LINZ

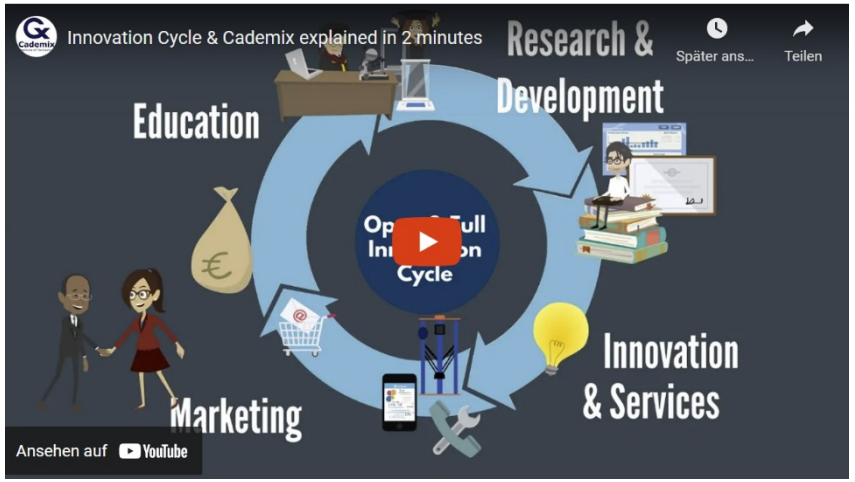
DorfUni.at
Bildung für Alle Allerorts

https://dorfuni.at

FarmLab

https://www.farmlab.at/

Cademix
Institute of Technology



https://www.cademix.org/

COLLABORATIONS

FAB REGION*
Bergisches Städtedreieck
*in the making

https://www.fab-bergisch.org/

is an EU-funded project that is driving the transformation of our region towards a sustainable, circular and resilient economy. We create places where people can implement ideas, work together on projects and develop new products. The aim is to promote strong local communities and economies based on the principles of the circular economy and knowledge transfer.
This will position the region in the Fab City network as one of more than 50 cities and regions worldwide committed to bringing production back to the local level while strengthening sustainability, circularity, and open-source knowledge sharing.

GUT EINERN

https://www.gut-einern.org/projekte

Fab City Award Winner 2025

Best Regenerative Ecosystems & Biodiversity

Gut Einern (Germany)

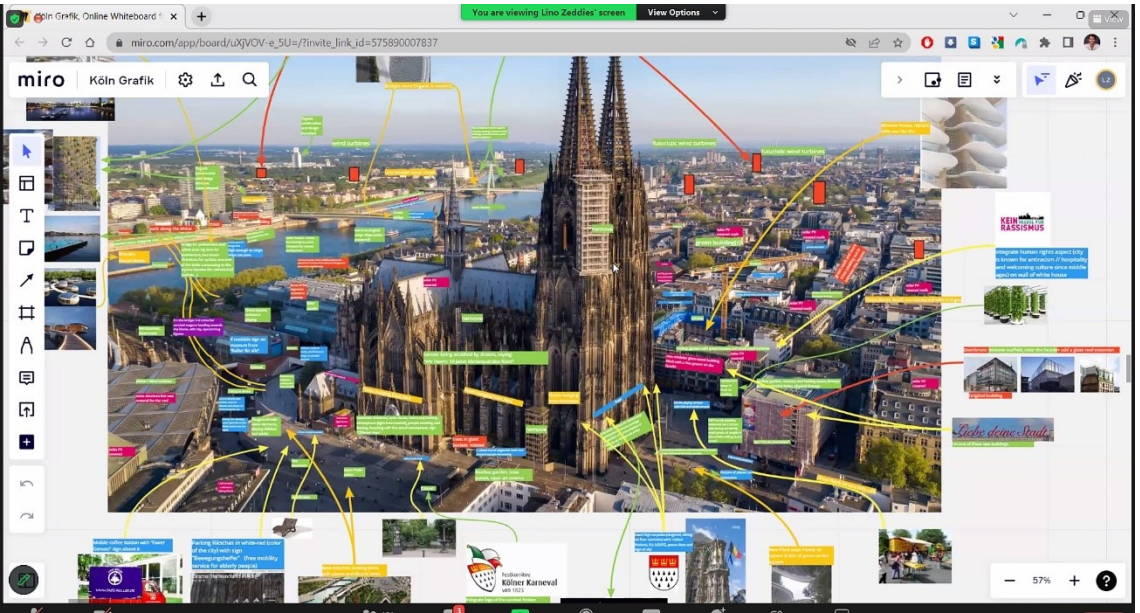
- Vertical Farm & Farming 2.0
- Permaculture & Tower Farms
- Learning Mobile: Mobile unit offering workshops
- Digital Plant Trail & Green Classroom
- "Gesundheitskiste Wuppertal" nutrition boxes, "Farmbot – CNC Farming," and outdoor seminar kitchen

Gut Einern is a learning center promoting sustainability through hands-on education in circular economy and regenerative agriculture. With modules like Vertical Farms and Permaculture, it empowers all ages to engage in local production, waste reduction, and climate action across rural and urban settings.

Images of the future

https://realutopien.info/

What could the future look like in the best-case scenario?
Our collection of utopian visualizations and video clips makes positive visions of the future tangible and opens up new horizons. Further use by private individuals, journalists and non-commercial projects is expressly encouraged!



https://www.regenvillages.com/

REGENVILLAGES

Technology integrated VillageOS™ software, for the future of living in resilient neighborhoods

FUTURE OF LIVING

IN REGENERATIVE AND RESILIENT SELF-RELIANT NEIGHBORHOODS

JAMES EHRLICH

Founder, ReGen Villages Holding

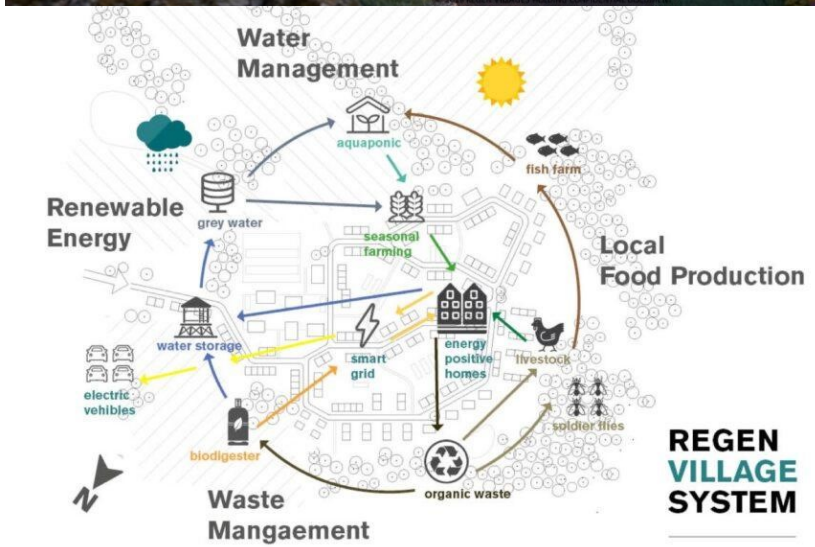
Faculty, Singularity University

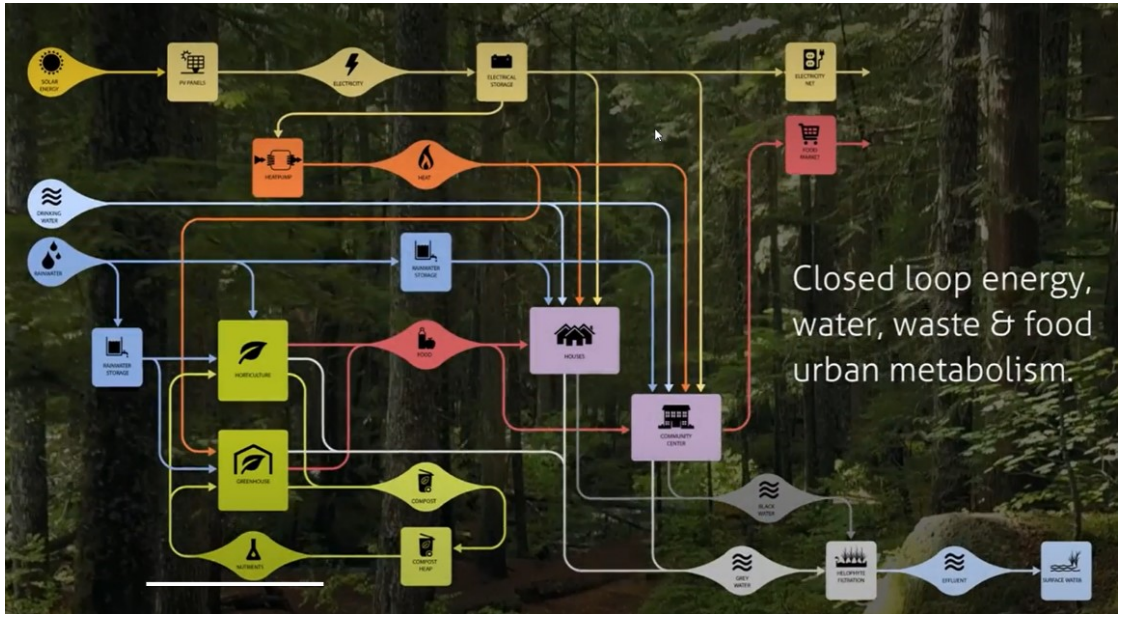
Senior Fellow, NASA Ames Research Center

Singularity UNIVERSITY

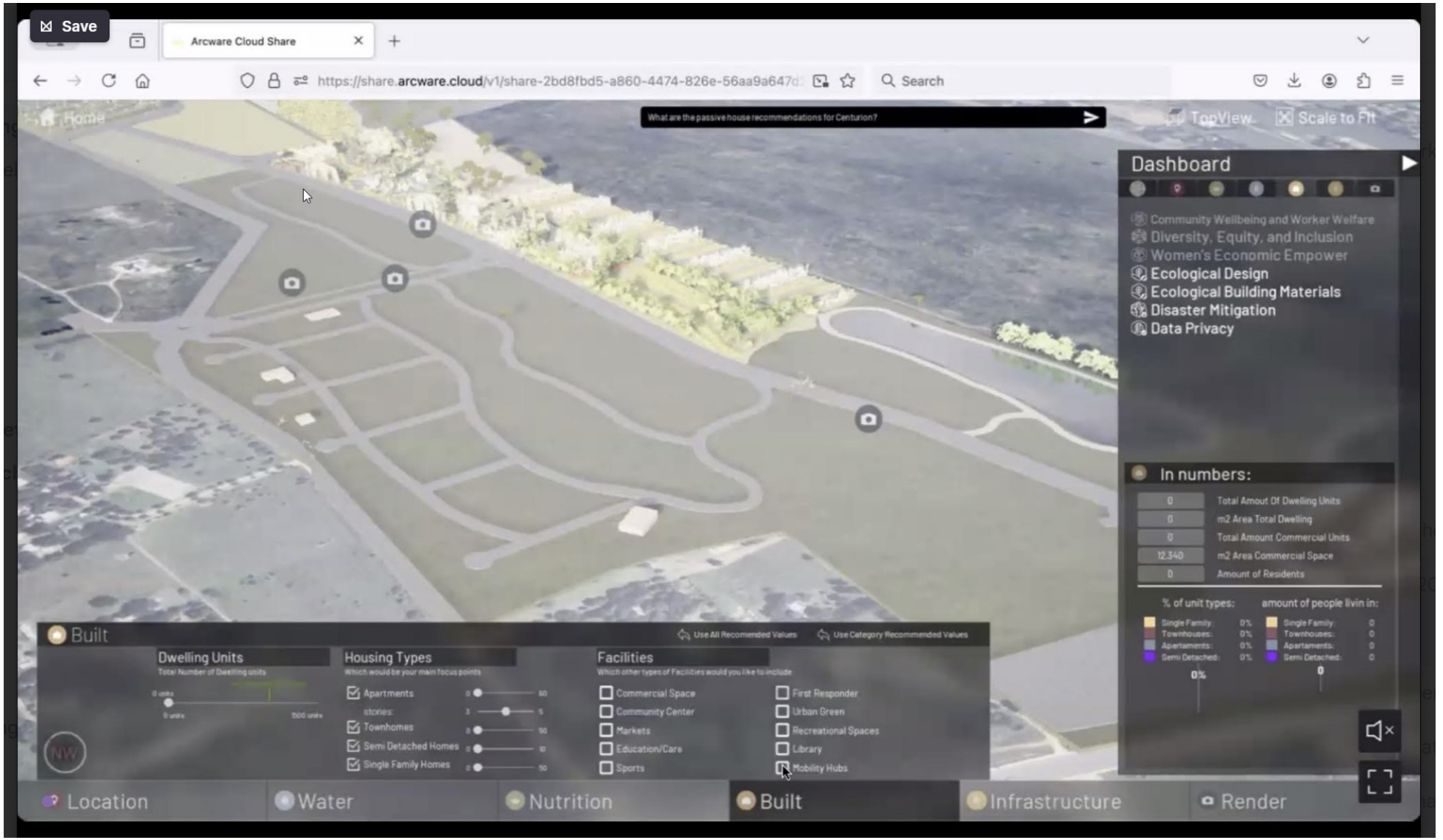
RegenVillages

Integrated village designs for thriving regenerative communities

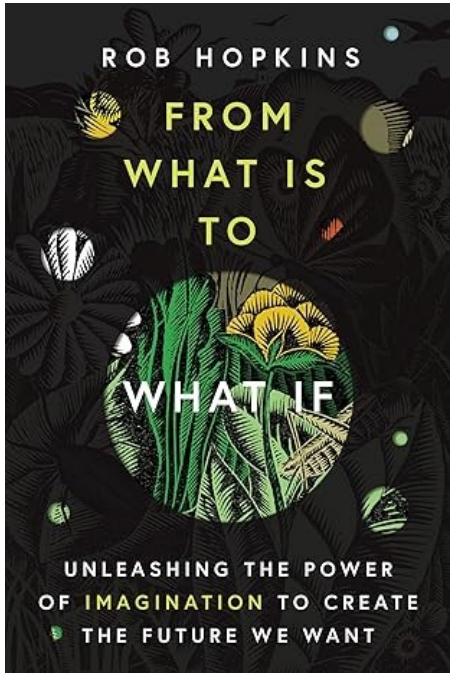




ReGenerative Villages Simulator™ software development is completed,
enabling the world's first virtual master planning platform for residential regenerative infrastructure

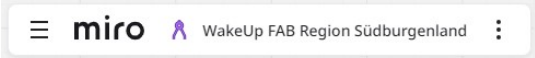


FAB REGION Südburgenland



www.openlandlab.org

Post your contributions on the miro board:
https://miro.com/app/board/uXjVI5YvQ-w=/?share_link_id=316544394511



FAB REGION Südburgenland

„Rural areas are the place of radical change "
Rem Koolhaas