

# WE ARE IN THE BUSINESS OF MAKING SUSTAINABLE IMPACT WITH OPEN HARDWARE



**GO!Commons**  
& open source things

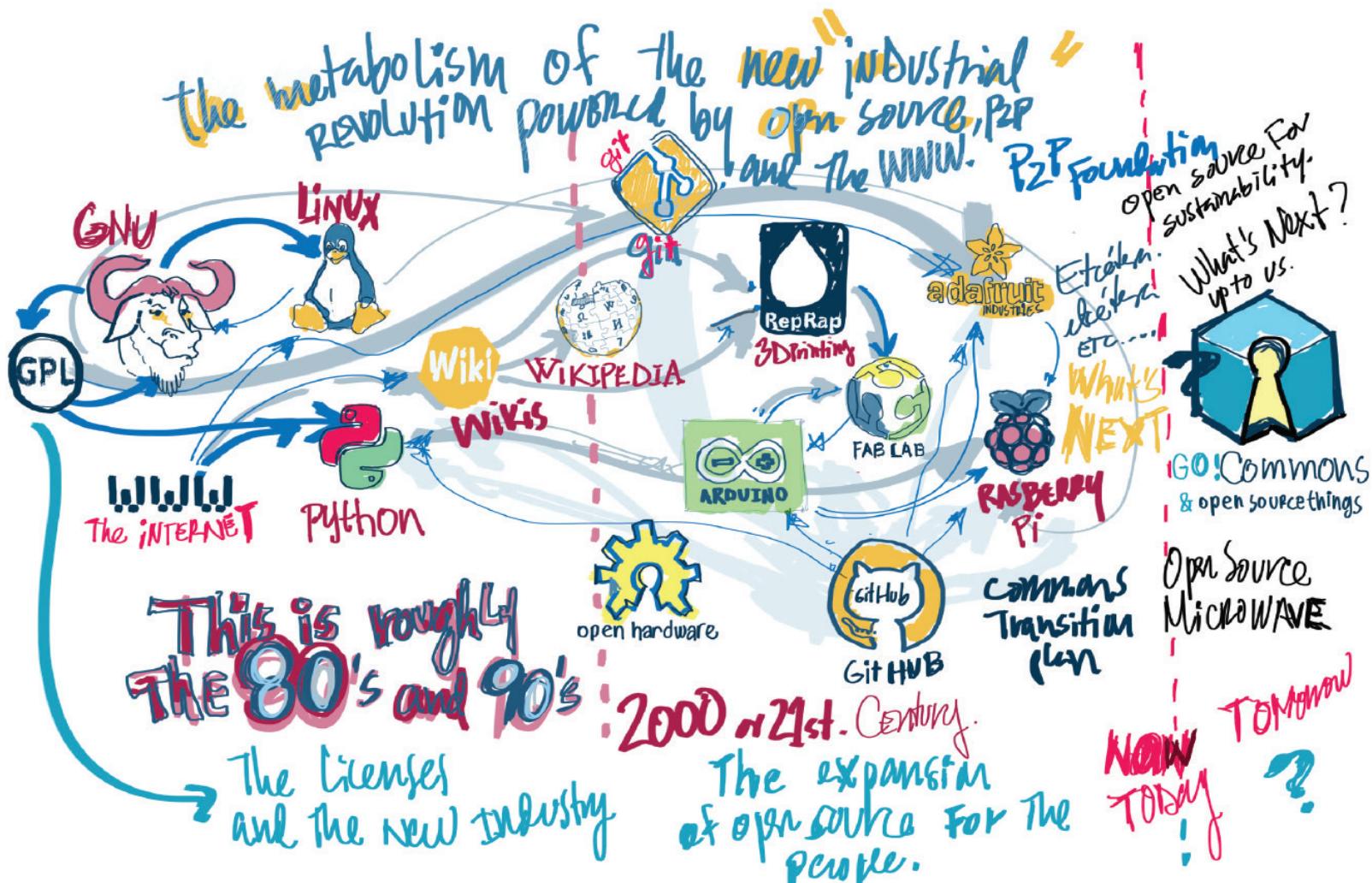


## EXECUTIVE SUMMARY

This Business Plan document shows our vision for impact making using open source solutions. We focus on a business case, with one of our open source machines. This machine is an automated plasma cutter, for metal sheets, that have been built and tested.

The first sections, introduce the big picture of how open source is key to enable sustainable development, prosperity and efficiency. We also briefly introduce the team and the core values that we share.

The following content focuses on our business model, and the current state of development, including achievements and reached milestones. The final part of this document presents the business case, of the CNC automated plasma cutter, the value proposition, and the specific financial estimates we have made around this particular product.



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Working openly and collaboratively can foster local development, education and economic prosperity. But it can also make value chains more efficient and eco friendly, by relocalizing production closer to consumption. The complex transition towards sustainable developments needs of systematic collaboration, innovation and communication. Open Source is a key element in this transition.

If everyone has the possibility to use, study, criticize and improve technology, developments and investments can be more responsive to local needs. Local economies can be more resilient and customized to the specificities of geographical and social development. Investing in open source means investing in creating capacities and sharing resources for everyone.

***This is especially sensitive and critical when it comes to meeting the needs of underdeveloped regions. Business alone cannot solve the challenges, education, empowerment, solidarity and transparency are key elements. This is why we insist in community led innovations and entrepreneurial driven programs.***

# ABOUT GO!COMMONS

We are a group of sustainability and open source advocates committed to sustainable impact. We lead an open community that uses best practices on the cloud, combining open circular design, entrepreneurship and collaborative business models to make impact with open products.



**JANNES NELISSEN** During my studies Industrial Design Engineering I changed my perspective from loving to build and create to realizing that I want to make socially sound and environmentally sustainable products. With 5 years of experience in research and design for the circular economy, I am now a junior lecturer Circular Product Design at the TU Delft and freelance design engineer with special interest in production and consumption in the circular economy.



**VINAY BHAJANTRI** I am a design engineer with a foundation in mechanical engineering and product design. I have worked on socially oriented technological products in India, Uganda and Kenya mainly centered around automation. Currently I work part time as a design engineer developing automation equipments for healthcare industries. I believe in order to have a sustainable development the know-how needs to be passed on to following generations which is possible with open practices.



**EMMANOUIL KARAMOUSADAKIS** I am a Greek farmer, entrepreneur and maker. I started my own farm where I design and build everything from scratch. I have worked in almost every position in the residential construction field. I am self taught on CAD design and I spend my free time researching and learning whatever is needed in order to move my farm forward, which led me to design a few machines from scratch, including the 1st prototypes of grapple, the cnc plasma, and the firewood processor.



**JOSE CARLOS URRA** I am Cuban industrial designer and entrepreneur. My passion is to work on projects that empower people to make impact. This is why I am so interested in sustainability and open source. I am also very interested in the economic aspects behind projects, and try to understand the models that are feasible and scalable. I worked for 4 years in Cuba, and later received an Excellence Scholarship at TU Delft.

# OUR BUSINESS MODEL TO SUSTAIN OUR SOCIAL ENTERPRISE EXPENSES

## PROBLEMS

1. A dominant model of technological development that is exclusive, source closed, linear, not distributed and doesn't allow users, as well as citizens to participate and give feedback.
2. Limited open hardware industrial and consumer goods.
3. Scattered and fragmented developments, which represent innovative steps, but are far from being reliable products, in the domain of open source production machines.

## available solutions

Proprietary closed source solutions dominates industrialization still.

Open Source initiatives with limited prototypes and adoption.

## SOLUTIONS

1. Provide alternative open source solutions and practices, that leverage community and participatory innovations.
2. Lead and develop open source projects, collaboratively that grows a solid product portfolio of enabling technologies.
3. Consolidate and integrate innovations, that can develop into commercial products and services.

## key metrics

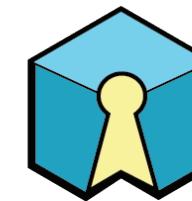
- Number of available commercial and replicable open hardware products.
- . Community growth rates (people joining GO!Commons)
- . Growth of donators
- . Number of initiatives that are part of GO!Commons Association.
- . Customized feature releases requests from customers.

## COST STRUCTURE

Payroll  
Development costs  
Shipping costs  
Sales costs

## VALUE PROPOSITION

- . We develop and distribute open source software and hardware solutions, with a focus on enabling technologies that can facilitate local sustainable development and technological sovereignty.



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## high level concept

We see ourselves like Red Hat in open hardware and distributed manufacturing. Our model allows many to join our community and create new open hardware projects, allowing them to also become business partners. We turn innovation into commercial and reliable products, transforming innovations and developments into more professionalized and industrial solutions.

## REVENUE STREAMS

1. Kit Sales
2. Software releases (as support or release funding).
3. Software support subscription

## ADVANTAGE

1. Reciprocity oriented license model, that protects the resources we create as well as the community.
2. Our collaborative workflow and workstyle.
3. Our win-win business model for community members and partners.

## CHANNELS

Website,  
Github,  
Licenses,  
Workshops

## CUSTOMERS

Governmental development agencies  
World Organizations (UN, EU, NGOs),  
Local producers,  
Manufacturers,  
Universities,  
FabLabs

# THE OPEN AUTOMATED CNC PLASMA CUTTER

We are in a very exciting time as a team. We have validate designs and prototypes, that can be used to empower local producers, but also students, and users.

We need sustain our business operations, and have a dedicated workshop, where we run our inclusive design-development programs. We need funds to invest on the kits that we plan to commercialize, and also to pay for software and hardware development hours.

Below we show some of our two validated designs:

1. A CNC Automated plasma cutter
2. A tractor implement, to grab big objects in farms and construction work.
3. The design documentation, innovation process and design improvements in our community platform.

The CNC plasma kit, an enabling technology for circular and distributed manufacturing



The CNC Machine was used to fabricated the Grapples implement



Both Machines are documented on github, in our community platform

## ROADMAP

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### 2018 MILESTONES

- Q3: Finished new kit design of CNC plasma cutter.  
Q4: - Raise Funds to officially startup our social venture (250K)  
- Grow our community to 100 members.

### 2019 MILESTONES

- Q1: - Grow our portfolio of validated designs from 2 to 5 (we are also exploring the design of stethoscopes, and open source solutions for smartphones to diagnose diseases).  
- Open our open source development workshop.  
- Kickstart our full time software development team.
- Q2: - Reach 8 units sales of our CNC plasma cutter kits.  
Q3: - Finish first CNC router free software product.  
- Start funding campaign to release the software to the public.
- Q4: Reach between 60 and 80 unit sales

### 2020 MILESTONES THE BREAK EVEN YEAR

- Q2 Sales of CNC router software, free release (reached 1 million revenue from software release)
- Q4 Release of 2 new open source products developed by GO!Commons, exploiting the concept of Funding campaigns to release open products, included source code, and design blueprints.

## OUR FINANCIAL ESTIMATES

The next two pages show our financial estimates for kit sales of CNC automated plasma cutters. We first show an overview of 3 years balance sheets, and then a detailed sheet of the first year per months.

Years	2019	2020	2021
Units sold	78	144	152
Revenues	897000	1659450	1742422
COGS	117000	1443000	1515150
Gross Profit	780000	216450	227273
Gross Margin (%)	1.0		
Expenses	238000	370000	728000
EBITDA	659000	1412500	2814000
EBIT Margin (%)	0.73	0.85	1.61

**Year 2019**

	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	Total
Units sold	1	2	3	4	5	6	7	8	9	10	11	12	78
Revenues	11500	23000	34500	46000	57000	69000	80500	92000	103500	115000	126500	138000	897000
COGS	1500	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000	117000
Gross Profit	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	110000	120000	780000
Gross Margin (%)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Expenses	106000	12000	12000	12000	12000	12000	12000	12000	12000	12000	12000	12000	238000
EBITDA	-945000	11000	225000	34000	45500	57000	68500	80000	91500	103000	114500	126000	659000
EBIT Margin (%)	-8.22	0.48	0.65	0.74	0.79	0.83	0.85	0.87	0.88	0.90	0.91	0.91	0.73

## **WHY OUR TEAM, AND WHY THIS PROJECT ?**

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***Our uniqueness is in the combination of a truly open collaborative framework, and an entrepreneurial approach that takes open innovation to level that can actually unfold into sustainable impact.***

***We also have a global approach, where we work remotely with partners and collaborators, specially in the development of digital commons, intangibles and resources that can be used to produce goods like a CNC machine, or agricultural implements.***

***To us the relationship with buyers of our kits, is not just a passive consumer relationship. We treat buyers as prosumers, and community members that can also lead community innovations, and influence on our organization roadmap.***

## **HIGHLIGHTS AND ACHIEVEMENTS**

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- Thanks to our open source collaborative approach, In less than two months our team has grown from an idea/concept to having three prototypes of machines.
- We have successfully completed the Round 5 of Mozilla Open Leaders program, where the Mozilla Foundation, mentored our project,
- We have currently a CNC working prototype including the documentation that is necessary for replication. As well as a tractor implement for farm activities, using as well the CNC machine we designed, to fabricate it.
- Our team has grown from 2 dedicated members to three fully dedicated engineers. And a 4th contributor that is also supporting our project.
- We have been collaborating with TU Delft university teaching students the value of open source and how they can collaborate in our open design projects.