



COMMUNITY SUPPORTED MANUFACTURING

For Solidarity Economy

version 2a full

1. Summary

Humanity is running out of time. The need for new, capitalism-free social model changed from urgent to desperate. That includes new, solidarity-driven economy which also includes new manufacturing sector, powered by quite different processes.

In this text I am giving a short summary of the world around us – capitalist world. Then I will sketch a social model that we need to build, including economy, ecology and governance system.

Later I am reviewing the peculiarity of capitalism-free manufacturing and its implementation as community supported manufacturing (CSM). I will try to show economic mechanisms that we need to introduce to replace capitalist methods, driven by greed and lust for power, used to allocate resources.

Finally I am trying to give an initial outline of practical steps to develop CSM in European and Greek reality, using CIRCo, our budding tech community, as an example.

I invite you, Dear Reader, to join the effort we try to initiate. By definition it has to be collective work and the more participants co-shape this new reality, the better for us all.

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3. Introduction

This is not a neutral text. This is a case for certain world-in-creation, written from a perspective of technology-involved person, seeing infrastructure and manufacturing as life support systems for communities – both in practical and in political sense. You have been warned.

We are running against the clock. In good old times, one of the chief topics, debated in radical circles, was whether new social model should wait until the revolution prevails, or would it be better to “build the new in the cracks of the old”. Now we (whoever wish to) know that the old is not going to be cracking slowly nor probably fall to the revolution. Humanity’s most probable scenario now is to be steamrolled by the planet’s runaway systems: climate, seismic and oceanic ones. Considering the level of awareness and preparedness among “our” people we may not live long enough to have a fun watching capitalism being crushed by angry Gaia¹. The excluded, the misfits, the have-nots will go down first. So now, building a network of resilient communities is not an option to debate. It is a crucial condition to survive (and, possibly, to inherit the Earth). One of the most underestimated means to this end in manufacturing (production of tangible goods).

As there are already at least several people who agree with key assumptions of this thinking, I will be using plural form. But it does NOT make me an appointed representative of any group.

3.1. Why manufacturing matters

People in economy are busy with three types of activityⁱ:

¹ Especially because the rich are actively preparing for the doomsday scenario and yes, they plan to leave us out in the cold (or hot): <https://medium.com/s/futurehuman/survival-of-the-richest-9ef6cddd0cc1>

- Extracting raw materials from the environment (including food production).
- Converting these materials into more complex, tangible products (manufacturing).
- Performing work that creates intangible products (services).

Manufacturing, known in this perspective as secondary sector, is the mainstay of every human civilisation. Manufactured items – **including tools, constructions, processed or preserved food** – are generally considered as specific for humanity. The essence, however, is the fact that **manufacturing relies on systematic, replicable procedures, based on experience and technological knowledge**. Instead of one-off artisan products, manufacturing provides items that are standardised and their specification is known before they are made. It makes the whole process of social planning and cooperation whole lot easier.

4. World around us

Global capitalismⁱⁱ is a currently dominant ideology focused on concentration of power and wealth through the system of “private propertyⁱⁱⁱ”. It is permeating whole “Western” civilisation and through its success of building global economy and political framework, it became ubiquitous.

One of the greatest achievements of capitalism is to make people think it is not an ideology – it is just the way the world works. Which is as much true² as it was regarding feudalism, theocracy and whatever ideologies may occur in the future. Having that in mind, let us describe the frame of reference of “the best known system to increase material wealth.” as the sales pitch goes.

2 Not.

4.1. Economic axioms of capitalism

Economy^{iv} is central to capitalism. All other aspects of life exist only to protect and support economic processes, as they struggle to achieve their goals.

The core of capitalist economy is private property. As soon as the ownership of something is assigned to a person (or a group of persons, usually through some intermediary institution), owner(s) can do everything with it. Within the limits of not damaging other people's property, impossible is nothing.

Popular knowledge claims it to be the best way to protect resources from mis/abuse³. Once dominant among humanity, stewardship of the commons and communal management of resources are now considered outdated, primitive and inefficient.

And because the idea of private property has been rationalised deeply, to the moral and almost religious level, the notion is that things that are not owned should be owned and those who own something are more entitled to own more than those who own nothing⁴.

Commodification is a process based on simple assumptions, being a mainstay of capitalism:

- The only measure of value (of anything) is its price.
- Price is expressed solely in money.
- The best way to establish a price is to put the item on the market, as commodity⁵.

So it is not enough if someone owns something. Their property will be considered worthless, until the market establish its price.

3 Of course, the whole social model is fashioned around the idea of *homo economicus*, rational egoist, driven by their desires and constrained only by the prospect of punishment. This is the context, where private property seems natural and inevitable. And one of capitalist ideological axioms says T.I.N.A. (There Is No Alternative).

4 A very dangerous notion is the idea of "self-ownership", being a gateway concept for commodification of a person.

5 In a lay-person's language "it is worth as much as people want to pay for it".

As every good (actual or aspiring) capitalist strives to know (and increase) their *personal worth*, they will not only appropriate everything they can, but also make it a commodity, offering it on the market and putting a price tag on it. We can legitimately say that **capitalism sucks** every imaginable resource into its own space and convert them into trading goods.

Considering what was written above, we can define goals of capitalist economy as:

1. Convert everything into a private property through appropriation and enclosure⁶.
2. Set value of all property through commodification process.
3. Concentrate value in the smallest possible group of owners through competitive drive to increase one's personal worth⁷.

4.2. Governance systems in capitalism.

Any form of governance will do, as long as it accepts the primary goal of protecting private property and all its ramifications. Some systems, however, are easier to manage than others. Essentially, the smallest group keeps control on the politics in given area, the easier it is to control it. Also, the more political role model resembles homo economicus, the better. Whole effort of capitalist propaganda (aka Public Relations) focuses on promoting "rational" and "realist" attitude, instead of "radical", "idealist", let alone "fundamentalist" ones⁸.

So, there is no special kind of governance that can be defined as "capitalist"⁹, nor "anticapitalist". It is the attitude towards private property and its concentration, which is the defining factor.

6 Another capitalist saying goes "possession is 99% of ownership"

7 Largely underestimated way to concentrate wealth is inheritance. Abolishing or limiting inheritance beyond personal items would kill capitalism within a generation lifespan.

8 Wherever propaganda fails (well established oppressed groups, for example), all kinds of brain drain tools (scholarships, affirmative actions, leadership formation programs) are used to extract possible future leaders from their communities and convert them into janissaries of capitalism.

9 While republican system of indirect democracy seems to be leading in support for capitalism.

4.3. Capitalism and the rest of universe¹⁰.

The environment, from capitalist point of view, is everything that has no price tag on it. It is worthless, but not useless. One can dig in the mountain which belongs to no one, extract the coal and commodify it, leaving depleted mines and all mess behind, without creating any cost of it. One can fish international waters and pay no one for the catch, increasing profit margin. It changes, of course, if the mountain or fishing rights are privately owned – then using it without payment is considered theft¹¹. But that “stays in the family”. With the group of indirect owners of everything growing narrower every decade, it is like moving the money from one pocket to another.

Known as extractive approach it boils down to using “free” (unpaid) resources as materials and components to create commodities, thus transferring the value form un-owned to owned (and commodified) areas.

From this perspective it is absolutely no surprise that (without special incentives or coercion) capitalist entities consider external (non-owned) environment, people included, as a free-for-all storage space, to take whatever is useful and to store whatever waste they have to get rid of.

4.4. Secondary sector in capitalism

Capitalist manufacturing sector is organized in every aspect to perpetuate capitalist system.

Manufacturing processes use (directly and indirectly) four kinds of resources:

- Components. Raw materials or products of previous manufacturing, being processed again into final product plus some waste)

¹⁰ Think ecology.

¹¹ Not that it wouldn't do – only one usually would not brag about it.

- Tools. Products of previous manufacturing, used in the process, but not changing their form, except for wear and tear, and being reusable in many cycles of production.
- Know-how. Systematic knowledge directing the use of tools on components to desired outcome.
- Human work. Agency, time and energy spent by people running the production process.

From capitalist point of view, most important resources are those included in the wealth concentration^v process.

Knowledge is now in the process of “closure”, as the concept of “intellectual property” is aggressively promoted on all levels of societal awareness.

The only resource that is still somewhat outside of property-driven system is **human labor**¹², not for the lack of attempts to change it. Political taboo of serfdom and slavery is still strong enough to prevent their open reinstatement, but there are huge areas of economy, where we can see either direct enslavement (workfare, private prison labour, distant outposts of transnational corporations) or attempts to force people into “voluntary” selling their bodies as commodity (precariate, subcontracting and self-employment).

The most direct impact of capitalist system on technology and manufacturing processes shows in the mix of production means, preferred in developing new products and technologies. The priority is to use recycled repurposed or at least pre-fabricated components and maximize use of tools and machinery, while minimize raw materials and human labour. Logic of capitalism makes it obvious: The profit on raw materials (for the upstream provider) is low and on human work – none. Thus the tendency to create

¹² In capitalism, there are two contradictory tendencies regarding labor. The fetish of full employment is important to keep people busy and dependent, but creates a lot of non-commodified labor in the system, which diverts stream of wealth from concentration process. Automation and replacing humans with tools increases wealth concentration, but creates political risk of having huge amount of people with too much time in their hands (and minds). It may be that only climate change and ensuing depopulation would solve this dilemma.

capital-intensive, proprietary technologies, so every time they are used (their product sold) the amount of money flowing into wealth concentration funnel is as big as possible. It also means that older technologies, that have paid back already, will be generating almost pure profit, through reuse of equipment and recycling of the waste they produce.

5. The world we create

"We're not making a world without greed, Jacob. We're making a world where greed is a perversion. Where grabbing everything for yourself instead of sharing is like smearing yourself with shit: gross. Wrong.

Our winning doesn't mean you don't get to be greedy. It means people will be ashamed for you, will pity you and want to distance themselves from you. You can be as greedy as you want, but no one will admire you for it."

[Cory Doctorow, Walkaway](#)

The notion that is permeating the whole "progressive" environment, with a notable exception of nihilist circles¹³ says that people "naturally" tend to organise themselves in a cooperative, non-abusive and generally anarchist way. Which is obviously and blatantly not true¹⁴:

- In a society that has been systematically brainwashed^{vi} since Edward Bernays^{vii} spread his Public Relations principles, there is hardly a person with the mindset that could be called "natural". Changes go down to neurological and epigenetic level.
- The more or less successful attempts to build non-oppressive communities usually include massive work (self-education and self-training, supported by mutual aid)

¹³ I am not sure, however, if nihilists should be labeled as "progressive".

¹⁴ On top of all sources describing failures of self-organized communities, I put my personal observations from more than two years spent in "anti-authoritarian" communities in Athens, Greece.

done upfront and daily, to keep and develop appropriate mindset among community members. Communities that ignore it, go dysfunctional sooner rather than later.

Minimal definition of political ideology says that two things have to be specified: a desired model of social organisation and preferred ways to achieve it.

So, here is the political model of humanity we advocate. The blueprint for massive work we have to do, first of all on ourselves.

5.1. Stewardship Ecology (humans included)

As we remember, capitalist ideology is built around wealth concentration, what makes economy the primary aspect of civilisation. The world we create is built around sustainability and resilience for all. That makes ecology (including humans) the hub of our model.

While we humans are a special kind of creatures, indeed^{viii}, we are part of ecosystem as much as any other species. Assuming position of stewardship, community claims no rights to the environment – rather obligations, coming from responsibility for its elements. It boils down to the need to discover our role in global ecosystem and start fulfilling it to our best abilities.

Easily defined, it is much harder to implement due to the complexity of ecosystems and multilayer structure of our biases. However, we consider stewardship (with or without religious connotations) the essential existential relationship between individuals, communities and the universe.

5.2. Communities and Confederacy

Against all social engineering that puts a human being alone in front of huge artificial entities, like society, state or corporation, the model we advocate is community^{ix}-centric.

We believe that heterogeneous communities, organized in a horizontal, peer-to-peer network (confederacy^x) are the best framework for socially-based survival of humanity.

This view is derived from general anarchist thinking, which abhor all permanent institutions. From social science's suggestions that there is a certain size of population that can be functional without them. And from thought of Abdullah Ocalan (inspired by Murray Bookchin), introducing confederated model of society, without any need to unify communities' internal governance^{xi}. It also comes from practical assumption that the coming change in environmental (political and ecological) conditions can only be survived by highly functional and well networked communities. Chances to survive, let alone prosper, outside of community support are negligibly small.

We strive to model and build communities that do not crush individuals. Community should work as an interface between them, helping them both contribute and benefit, with as little need for adjustment as possible¹⁵.

Major modeling work will be put in processes of inter-community communication, cooperation and coexistence, leading to confederated peer-to-peer network, guided by mutually agreed protocol^{xii}.

The most important aspect of this model is universal opt-out right. No one can be held in a community against their will. And of course people are free to self-organize and create new communities as they wish.

5.3. Solidarity Economy

Economy exists in every community, where energy and matter circulates. Various economic models differ in their goals and in the ways they measure success or failure. We believe that for capitalism-free and self-organized communities, the best economic model is solidarity economy. On microeconomic level (inside community) it assumes the goal to fulfill people's needs in the most equal^{xiii} way possible, within available resources.

15 Let's be frank. Adjustments needed can be quite substantial at times, but the plan is to keep them strictly at necessary level.

Availability of resources is limited by their sustainability and the level of outcome is limited by the needs of resilience (maintenance and strategic reserves).

On the macro level (among communities) at least part of economic surplus should be allocated according to solidarity criteria, thus improving equity and the spirit of mutual aid between communities.

In contrast with capitalist economy, solidarity economy will follow quite different goals:

1. Keep common resources sustainable and resilient, as part of stewardship mission.
2. Use the stream of benefits (coming from the commons) to fulfill direct needs of stewarding community.
3. Communally manage the infrastructure, supporting life of community.
4. Protect personal property, to the extent agreed by the community, not allowing wealth and power concentrate on any level.

In popular knowledge, new social organization often is connected with the idea of detaching oneself from the system, living “off-grid”. We believe that the crucial is to learn how to live “off-greed”.

5.4. Self-Governance^{xiv}

As with the economy, (self)governance is ubiquitous. For the community centric model, self-governance systems should meet at least two minimal conditions:

- Reinforce and perpetuate the main ideological values: sustainability and resilience.
- Protect mainstay elements: the commons and stewardship.
- Support and preserve people’s self-determination.
- Maximize number of people directly involved in decision-making process¹⁶.

¹⁶ Because, in communal activities, the efficacy depends not only on the meritocratic quality of decisions, but also strongly on the internalization thereof across the community.

6. Secondary sector without capitalism.

Changing the leading axiom of ideology makes everything work differently. In newly created world, also manufacturing sector becomes new, made of quite different components.

6.1. Liberatory technology

Technology is specialized knowledge, how to use tools on components to create product and (possibly minimal) waste.

Liberatory technology is not only supporting the goals of sustainability and resilience. It also supports human self-determination and self-organization. A good approximation would be “appropriate technology” with enhanced social and political awareness.

Liberatory technology also aims at closing the gap between people and technology, making everyone involved in infrastructural processes. The challenge is to balance unavoidable conservatism of “consumer” communities against much needed innovation drive, present in makers’ and tinkerers’ tradition.

The answer seems to lay in CSM: specialized tech communities will be keen to innovate, while the production will be driven by requests of “general audience”.

6.2. Community support

Once we remove property (and the profit coming from it) as the driving force of economy, we need to create new mechanisms to make manufacturing choices and provide seed resources to manufacturing entities. Capitalist investment decisions are taken upon promised financial profit. In our world, investments¹⁷ are driven by mutual aid principle and decided through affinity^{xv} process.

¹⁷ In capitalism-free context we use term “investment” in microeconomic sense, as the money spent to cover initial equipment and standing costs. There is nothing like “financial investment” here.

There is a community that needs some products, but lacks skills or other conditions to make them. And there is another community that is able to make them, but lacks seed funding, or just sheer work-power.

So, pretty much similar to Community Supported Agriculture, one or more "receiving" communities may support the manufacturing one and all of them benefit from the outcome.

	Input	Outcome
Tech Community	Expertise Specialized resources Focus	More expertise More resources Reputation
Supporting Community	Product co-development Consulting technology choices Peer review Seed resources Purchase commitment	Material needs fulfilled. Education & awareness. Strengthened peer-to-peer network.
Rest of the world		Open documentation Cheap education Kits and products available to purchase.

We see it as a part of mutual building of community resilience and sustainability through partnership with another community, having complementary skills or resources. As the number of communities grows, this will become another base for confederated peer-to-peer networking.

It is worth stressing out that this kind of support does not mean creating any fixed dependence. Scrutiny from supporting community is temporary and ends when the conditions for it are met (mostly when the loan is paid). There is no change of ownership regarding resources (we are strongly against ownership as a method of control), no new institution is created. The whole process is affinity based and only essential elements will be put in contractual form (and published for public control).

6.3. Freemium model

The freemium economic model we advocate^{xvi} assumes that every product should be available in several forms, some of them should be free, some moderately paid and some sold at a premium price. Premium forms of products would provide sustenance for people involved in manufacturing and funding for free and cheap versions.

Taking a cargo bike production for example, proven and detailed DIY documentation will be provided free, kits or “assisted DIY” workshops would be run at cost and ready bikes would be priced with an extra premium.

Basic licensing of these products will supposedly be “CC-BY-SA”^{xvii}, which is an open viral license. Openness means that there is no restriction put on the goal the product is used (even for commercial purposes). “Virality” comes from the condition that any derivative (improved version, adaptation etc.), will be licensed the same way (thus available for everyone).

In this context, community supported manufacturing would mean that a community assumes role of “customer zero”, providing resources to create and distribute product available for everyone. This is, we believe, solidarity economy as it should be.

Endnotes

- i https://en.wikipedia.org/wiki/Three-sector_theory
- ii <https://kanenasblog.wordpress.com/glossary/capitalism/>
- iii <https://plato.stanford.edu/entries/property/>
- iv <https://kanenasblog.wordpress.com/glossary/economy/>
- v https://en.wikipedia.org/wiki/Wealth_concentration
- vi https://en.wikipedia.org/wiki/Robert_Cialdini#Theory_of_influence and
https://en.wikipedia.org/wiki/Brainwashing:_The_Science_of_Thought_Control
- vii https://en.wikipedia.org/wiki/Edward_Bernays
- viii *"The human being is one of the coolest animals on the planet, because we can think how we think."*, Dr. J Bergman, <https://www.youtube.com/watch?v=krMStWXUYlg>
- ix <https://kanenasblog.wordpress.com/glossary/community/>
- x <https://kanenasblog.wordpress.com/glossary/confederation/>
- xi <https://freelab2014.wordpress.com/2015/03/17/towards-stateless-democracy-english-edition/>
- xii <https://kanenasblog.wordpress.com/glossary/confederation/confederacy-protocol/>
- xiii Like in "equity" rather than "equality".
- xiv <https://kanenasblog.wordpress.com/glossary/governance/>
- xv Affinity, as we understand it: <https://kanenasblog.wordpress.com/affinity-how-we-understand-it/>
- xvi <https://cnicoop.wordpress.com/what-is-cni-coop/freemium-open-source-economic-model/>
- xvii See <https://creativecommons.org/share-your-work/licensing-types-examples/licensing-examples/#sa> for details.