CoopTech

Platform Cooperativism as the Engine of Solidary Growth

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#CoopTech: Platform Cooperativism as the Engine of Solidary Growth

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Along with prospects of development, digital economy brings new risks. All participants of the social and economic system bear the costs of Big Tech, i.e. corporate digital platforms. Many seek a different development path, motivated by such problems as increasing inequalities, digital surveillance and control, and monopolization.

Our answer to these issues are platform cooperatives, i.e. technological solutions embedded in the cooperative model. Therefore, platform cooperativism is an innovation both in terms of technology and social and organisational dimension. Beginning with the principle of “solidarity by design,” platform cooperatives focus on sustainable development, solidarity and openness. Hence, they offer stable working conditions, decent wages, respect for local communities and empowerment of their. Existing technology cooperatives are often global, multi-million euro players. Some of them involve freelancers, others – small producers, city residents, or data owners.

The investment potential of platform cooperatives in Europe is significant, as can be seen from the estimation model. There is nearly €1.3 billion of financial resources that could be allocated to such entities annually. In Poland, this potential amounts to 47.7 million PLN. The largest industries are finance (FinTech), media, real estate and housing, but also travel and events. Investments in transportation, educational, food, energy, fashion and health platforms will also be important.

In order to activate this engine of solidarity-based development in digital economy, all stakeholders must act. Lack of access to capital and less aggressive expansion of platform cooperatives must be replaced by an integrated ecosystem of institutions.
Recommendations for entities such as trade unions, industry associations, local governments, small entrepreneurs or organized employees include:

1) Taking into account the criteria of “solidarity by design” when purchasing technological solutions.
2) Conducting information campaigns to promote solutions of platform cooperation.
3) Accelerating own platform initiatives.

Government administration should adopt much more far-reaching measures. For Europe, CoopTech is an opportunity to rebuild technological sovereignty and embed new technologies in local communities and in the hands of the employees themselves.

Recommendations for EU policy are as follows:

1) Revision of the VentureEU investment strategy.
2) Amendment of the European Cooperative Society taking into account platform cooperatives.
3) Promotion of a European brand of tech cooperativism.

Recommendations for Polish administration are explored in Polish translation of the report.
1. Why Do We Need CoopTech in the World of Big Tech?

“Before the Internet, it would be really difficult to find someone, sit them down for ten minutes and get them to work for you, and then fire them after those ten minutes. But with technology, you can actually find them, pay them the tiny amount of money, and then get rid of them when you don’t need them anymore.”

Lukas Biewald, CEO Figure Eight

The global economic system is undergoing a breakthrough and multidimensional transformation as a consequence of the widespread adoption of ICT (information and communication technologies) and the huge accumulation of financial capital. This new digital economy is not only different in terms of the use of new machines and the speed with which information is exchanged, but also means a fundamental reorganization of the way we work, produce and consume. Business models using the presence of transaction parties in the “digital infrastructure,” sharing underutilized assets, or finding value in tracking tools have irrevocably changed society and the economy.

Estimations carried out for the European Commission indicate that transactions of digital platforms already have a significant share in the creation of GDP in our part of the world. The fragment corresponding to the so-called sharing economy, according to forecasts, will in 2025
generate revenue of up to €570 billion.¹ These calculations do not take into account the revenues of the largest players – giants of the Internet advertising market, online shopping, or social media.

Shoshana Zuboff, professor of economics at Harvard Business School, warned us nearly a decade ago about certain emerging and now fully functioning data commoditization phenomena and the increasing impact of digital platforms on our daily lives.² America’s largest technology corporations, sometimes referred to as “Big Tech,” “GAFA,” or “digital giants,” have dominated the online services market. Google, Amazon, Facebook, Apple, and Microsoft are followed by dynamically growing digital platforms operating in all sectors of the economy, from healthcare through banking to transportation.

Although the activities of the platforms are clearly beneficial, they have more or less anticipated consequences that have a negative impact on economic and social life. The existence of poor regulations in these areas, or even attempts to circumvent the law, leads to a number of market failures. Some of these effects are, worse still, part of an active policy of digital platforms that can attract cheap workers or ignore marginalized groups.

The negative side of the world designed by digital giants is widely documented³ and has already gained the interest of regulators and social movements. British and European jurisprudence has recognized that Uber is indeed a transport company, not an IT service provider exempted from legal liability. Cities around the world restrict or ban short-term rental platforms such as Airbnb, as their unlimited growth leads to a decline in the supply of long-term rental accommodation and contributes to increases in prices – a problem also widespread in Poland. The discussion on user tracking has led, among other things, to the adoption of the Regulation on Personal Data Protection (GDPR) in the EU, and further actions in the area of protection against profiling are the subject of ongoing public discussion.

The problems most frequently identified in the literature fall into the following categories:

- **Increasing inequalities**
  - Precariousness of work and low wages
  - Failure to respect labor rights
  - Discrimination based on sex, race, and nationality
  - Gentrification and wealth inequalities

- **Digital surveillance and control**
  - Top-down decision-making
  - Exploitation of human cognitive biases
  - Algorithmic profiling

- **Monopolization**
  - Unfair competition and circumvention of law
  - Extraction of data and value
  - System closure and market concentration

As Evgeny Morozov notes, **there are three lines of criticism in current Big Tech discussion**.4

Supporters of the first camp, focused on the narrowly understood economy of the digital world, claim that users of digital platforms give their data for much less than it is actually worth. Therefore, businesses earn money by taking away the valuable fruit of our work and lives, and users need to be rewarded in some way. In a widely recognized speech in February 2019, Gavin Newsom, California’s new governor, called on technology giants to adopt the idea of “data dividend.” In his opinion, “consumers in California should also benefit from the wealth that comes from their data.” Similar suggestions were made by researchers affiliated with Microsoft Research. According to them, data should be the subject of microtransactions in markets, bringing direct profits to users. This approach, however, focuses on a narrow section of the problem. Digital platforms are not only a source of profits, but they also determine employment, access to goods, mediate and manage our reality. Microprofits cannot replace stable work or restore control over digital surveillance algorithms. The lack of a social dimension to this approach means that it is an incomplete criticism of digital giants, which omits more of its dangers.

The second group also has faith in market solutions, although it believes that it is impossible to regain efficient market power without a strong competition law. Therefore, they are looking for an antitrust toolkit to limit digital giants, e.g. by dismantling group companies or forcing interoperability.

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Such thinking is increasingly popular in Washington, D.C., where institutions such as the Open Markets Institute are seeking to reverse the light and very selective enforcement of the antitrust laws of the last few decades. Similar solutions are also finding interest in Brussels, and the European Commission, with the leading role of Margrethe Vestager, is looking for an increasingly ambitious policy. Although such solutions are firmly anchored in the economic history and documents of leading think tanks, increasing competition in many markets will not necessarily translate into less predatory gameplay. It is therefore only part of the necessary policy towards Big Tech.

The answer to this challenge is provided by the supporters of the third alternative, which rejects purely market solutions in favor of democratic transformation. We need to consider what role platforms play in creating a digital future in which most of our lives will be digitized. Therefore, this approach does not treat data as a commodity, but rather as a collectively produced and socially necessary resource. It is crucial to see digital multi-stakeholder platforms as a new space for decision making, working and managing reality. Platform cooperatives are a response rooted in a cooperative tradition, involving workers/users, ensuring a democratic voice and long-term sustainability, not only in the perspective of a rapid market conquest without taking into account the costs.

For trade unions, social organizations and movements, as well as workers who are now dispersed or working as freelancers, platform cooperatives are an opportunity for solidary labor, one that dignifies, replacing instability and underrepresentation. Especially for trade unions, CoopTech should be interesting as a model allowing, on the one hand, to stop the erosion of unionization (especially of the youngest, digitized generation) and, on the other hand, as an active response to the challenge posed to the world of labor by market players.

From the point of view of local communities, local governments and urban movements, platform cooperatives are a real investment in solutions for a shared economy. The promise of a better use of resources means not only reclaiming part of nearly EUR 600 billion of corporate platform profits, In another model, the priority may as well be making a positive impact on the environment and the empowerment of co-owners-residents.
Worker-owned cooperatives can offer an alternative model of social organization to address financial instability. They will need to be collectively owned, democratically controlled businesses, with a mission to anchor jobs, offer health insurance and pension funds and a degree of dignity.

Trebor Scholz, Platform Cooperativism vs. the Sharing Economy

Unexpectedly, there appeared a new group of digital enterprises that break with the extractionary logic in favor of a more inclusive model. The platform cooperatives noticed by Scholz in an article from 2014 update a proven concept with today’s technologies and management methods. The cooperative tradition is the basis for a reorganization of the free participation of equal partners involved in the production of common resources. Therefore, cooperation means a community of people voluntarily working together to meet their economic needs within a co-owned and democratically-controlled enterprise, in this case a digital platform.

The most popular example is the Spanish Mondragon, which proves that cooperatives are not limited to a few sectors, but that their model is highly competitive and shows long-term growth, even in the face of market competition. The Mondragon group is composed of more than...
Over the course of those days, a kind of question kept coming up among the Turkers [workers on Amazon Mechanical Turk platform], a thought experiment. They wondered aloud: What if we owned the platform? How would we set the rules? They’d sit with that for a minute or two, batting ideas back and forth about how to make the platform better for themselves – and for Amazon.

Nathan Schneider, *The Meanings of Words*

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Michel Bauwens, a peer-to-peer network movements researcher, has proposed three leading principles that should guide platform cooperatives and allow for their recognition.6

1) **Sustainable development** (a response to increasing inequalities)

The coproduction of common goods should be supervised by open participatory governance models and by all stakeholders. What distinguishes platform cooperatives is long-term sustainability, both internal, which results from the equal sharing of power and remuneration, and external, in relation to the environment. They are more resilient and **rooted in their communities** compared to the strong, rapid but often short-term conquest of attempts to install new tools extracting economic value. Such attempts very often fuel a continuous flow of financial resources, as shown by the case of modern companies such as Uber or WeWork. Moreover, in the face of the threat of automation of work, the balanced approach of cooperatives means a **smoother transformation**.

2) **Solidarity** (a response to digital surveillance and control)

The principle of solidarity is most relevant to the governance model of platforms. They should be geared towards joint action to protect common interests, which can take various forms. While it is widely recognized that employees themselves should participate fully, the question is whether other stakeholders, including potential equity investors or governments, should have equivalent governance rights. Some platforms may operate in a strictly non-profit manner to provide essential services to the community but legally function as municipal public companies. Therefore, solidarity means **focusing on a common objective**, while ensuring that the parties are a **subject rather than an object of work** and properly remunerated.

3) **Openness** (a response to monopolization)

Although many platform cooperatives produce and operate locally, their mechanisms should be open to scaling and globally linked to other similar groups resisting late capitalism. Interoperability and preset standards for open programming environments (APIs) will also **balance the lock-in and silo nature of digital giants’ technologies**. However, a balance needs to be struck here to avoid a drain on unique intellectual property, e.g. through open but limited licenses.

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The above principles can be used as a basis for the functioning of platform cooperatives, and research conducted on existing platforms and employees indicate other unexpected directions of development. **Decent pay, job security, employee protection, and good conditions for suppliers** are the most obvious directions. Equally important, however, is also protection against excessive digital surveillance or the right to log out (as a digital equivalent of the right to rest). These conditions cannot be the result of a one-off agreement resulting from e.g. good economic situation, but they must be secured by the basis of platform cooperatives: the model of co-ownership. For this reason, cooperatives are resistant to changes in management policy, market pressure, or the prioritization of one group of employees over another.

Interestingly, research conducted by Marina Gorbis also indicates a desire to acquire new skills (upskilling), a need for communication channels, and creating social bonds, but also the growing importance of **transparency in data management and portability**. These results prove the existence of a lively work culture that is deliberately suppressed in a capitalist company as a threat to the negotiating and management power of the strict top of the hierarchy. At the same time, however, the atomization of workers harms economic activity itself, which cannot benefit from their greater involvement, nor the flow of knowledge – a key development resource in the information economy.

Such indications coincide with the expectations of the majority of employees. In Poland as well, as the latest research of praca.pl portal indicates that fairness is the most important quality for 77% of employees, including the recruitment stage. Transparent procedures, just assessment of competences, and clear efficient communication are highly rated. Cooperatives respond to these needs with their model, without the need to use substitutes such as the so-called “360-degree assessment” or additional employee benefits, e.g. fruits in the office. The problem of hierarchy and atomization is even more strongly present on digital platforms, where the only medium is a mobile application or a website, so the traditional forms of expression of opposition or dialogue face to face disappear. At the same time, the network makes it possible, after all, to provide rapid information, ask for opinions, and vote. Without the form of cooperation as a safeguard, this model will not, however, be implemented on its own. A positive promise of technology also requires a bottom-up social organization of workers and users.

The analysis of the Fairmondo platform (cooperative response to Internet portals for shops such as eBay or Allegro) enables us to identify a useful and effective model of principles for platform cooperation. These practical guidelines are presented in Table 1.
Table 1: Governance model for platform cooperatives based on Fairmondo.

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<th>Navigating Capitalism</th>
<th>Democratic Participation</th>
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Depending on the ownership model, we can distinguish several types of platform cooperatives, which include mechanisms tailored to the specific markets in which they operate. Expanding the proposal of the Nesta innovation research centre,7 we can identify five such types:

1) **Community (multi-stakeholder) platforms:** involving multiple stakeholders who take part in the production process, while boundaries between them are not clear. Often, their functions are combined or collapsed, e.g. those of employee, user, citizen, and investor.

2) **Producer-owned platforms:** producers, shop owners, or freelancers use this model to offer their goods. Producers together achieve network effects but usually do not cooperate physically.

3) **Worker-owned platforms:** the employees themselves offer their work on the platform, in an agreement or another form of cooperation with trade unions or traditional cooperatives.

4) **Data cooperatives**: organized in the form of a data trust (or data consortium) formula, are institutions that collectively manage user data (e.g. medical data) to ensure social utility and higher security.

5) **Internationally-governed platforms**: this proposed model, due to the importance and size of the platform, transfers ownership to international institutions (such as UN agencies or the International Labour Organisation). However, such a platform still aims to follow the principles and bring the value that is at the center of platform cooperativism movement.

Platform cooperatives are vehicles for conducting business activities for various types of entities. CoopTech does not selectively concern employees of the low-paid services sector but also freelancers. Moreover, CoopTech is also for associated owners of small companies looking for a market advantage based on the principles of solidarity, but also for consumers using common resources or users-owners of their data.
3. What Are the Successes of Active Cooperatives?

“When you share, you customers to share.

Alexandre Segura, CoopCycle founder

Although platform cooperatives are still gaining popularity, at this moment, their group already comprises several dozen large companies, operating both locally and globally. Below are brief characteristics of a few of the most important platform cooperatives identified by us, which may serve as a starting point for further research or as an inspiration for action.

Successes of platform cooperatives

Fairmondo

Country of origin: Germany
Sector: e-commerce
Type: producer-owned platform (2)

Fairmondo has permanently set foot in the German market and is currently planning a global competition with Amazon. 2000 co-owners offer over 2 million products on the platform.
Stocksy United

Country of origin: Germany
Sector: stock photos and videos
Type: producer-owned platform (2)

Stocksy has more than 1000 photographers from 63 countries around the world, offering a common space for selling works. In 2016, the platform generated sales of $10.7 million.

Fairbnb

Country of origin: Italy
Sector: short term rental
Type: community platform (1)

Fairbnb participates in dialogue with the authorities and residents. 50% of the income is spent on social projects. The platform was established in Europe, but it is already registering globally.

CoopCycle

Country of origin: Belgium
Sector: transport (food delivery)
Type: worker-owned platform (3)

CoopCycle offers modular software for ordering and delivering food under a special Coopyleft license. It is already used by couriers from Denmark, Germany, Belgium, France, and Spain.

Up & Go

Country of origin: USA
Sector: home services (cleaning)
Type: worker-owned platform (3)

Up & Go functions as a platform for ordering home cleaning. The platform connects several cooperatives, charging them only 5% of the fee for its own functioning.
MIDATA

**Country of origin:** Switzerland  
**Sector:** healthcare  
**Type:** data cooperative (4)

MIDATA is a platform allowing patients to upload medical records and managing them in their interest by secure, payable sharing for research purposes.

Resonate

**Country of origin:** Ireland  
**Sector:** music streaming  
**Type:** community platform (1)

Resonate handles music streaming application offering up to 2.5x higher royalties. Thanks to blockchain technology, artists, listeners and employees have their own voice.

Modo

**Country of origin:** Canada  
**Sector:** carsharing  
**Type:** community platform (1)

Modo was created to reduce the number of private, rarely used cars. Currently, it offers 700 cars and serves more than 20,000 users.

Union Taxi Cooperative

**Country of origin:** USA  
**Sector:** transport (passenger)  
**Type:** worker-owned platform (3)

Union Taxi is a cooperative with trade union roots. Thanks to its own application, it effectively competes with Uber. The current goal is to create a low-emission, environmentally friendly fleet.
**Enspiral**

**Country of origin:** New Zealand  
**Sector:** freelance (labor cooperative)  
**Type:** producer-owned platform (2)

Enspiral uses modern digital tools and platforms to support a distributed freelancer cooperative. In this way, 300 people share resources and knowledge.

**Loconomics Cooperative**

**Country of origin:** USA  
**Sector:** freelance (labor cooperative)  
**Type:** producer-owned platform (2)

Loconomics offers a platform for managing work (clients, calendars, etc.) while ensuring the sharing of additional profits and combined investments.
What Is the Future of CoopTech?

Estimation of the market size in Europe

“We will not stop until the largest part of e-commerce is democratically owned by users and stakeholders along the supply chain. The new ownership structures need not necessarily be called "Fairmondo" or any other brand name by then.”

Felix Weth, Fairmondo founder

The vision of another digital economy, in which sustainable development, solidarity, and openness are strengthened by the technologies used, materializes before our very eyes. After all, this is not a new situation in the history of the development of our part of the world. It was in Europe, disappointed by the destabilization caused by the industrial revolution, where agricultural and consumer cooperatives,
social security funds, credit unions, cooperative banks, housing cooperatives, and industrial associations have flourished.

This tradition is still alive in Europe and Poland. European cooperatives generate more than one trillion euro of revenues, with 140 million active members. The biggest in this respect are financial, consumer, and insurance cooperatives, while agriculture, food, and trade sectors have the highest turnover. Therefore, these form no peripheral areas of the economy but the heart of economic life.

In this area, Poland is not an imitator, but a leader. Our cooperative sector boasts a long tradition, significant interest of consumers, and a strong position in the international arena. The cooperative sector employs 300 thousand workers in Poland, which guarantees it 4th place in Europe – after France, Italy, and Germany. Nearly PLN 15 billion in revenues are recorded by cooperatives operating and providing goods in all major markets. Biggest revenues are accrued by the following sectors, in descending order: banking, agriculture, housing, consumer sector, industry, and services.

Platform cooperatives may be a European response to the expansion of American Big Tech, but also to the Chinese model of the state, a titan of digital surveillance. Technological sovereignty has already become a leading paradigm for European cities that want to regain control over ethical standards and data ownership. The ICT Public Procurement Guide of Barcelona is an interesting document in this respect, proving that the European public sector can be not only a recipient but also a co-creator of solutions based on the European cooperative tradition. Similarly, consumers, users, employees, and manufacturers across Europe and Poland are increasingly turning toward platform cooperatives to break with the extractive model of development of corporate digital platforms.

However, not every sector of the new digital economy is equally susceptible to penetration by cooperative initiatives. Platform cooperatives certainly require a platform that gathers the parties to the transaction and encourages them to co-manage and co-own. The existence of positive externalities that can arise from cooperation, sharing of data and information among the parties cannot be underestimated. Finally, as Gorbis notes, employees of digital platforms themselves declare their willingness to communicate and build a community. The history of cooperatives also shows that cooperatives grow especially well wherever the market fails; when negotiating power is unequal or there is a risk of monopolization, democratic ownership is a natural response leveling the playing field for marginalized or weaker groups.

8) The Power of Cooperation, Cooperatives Europe key figures 2015
Industries with a potential of more than 100 million euros are colored red, those with potential between 100 and 30 million euros – blue, and those between 30 and 1 million euros – grey. Dark blue outline indicates technology industries corresponding to the traditional areas of cooperative activity.

The methodology of the estimation model is described in the Annex to this report.
To estimate the development potential of the market for platform cooperatives in Europe, we have developed an estimation model with the Cooperativity of Technology Index (CTI). The analysis of 150 technology companies from Europe and data on the size of venture capital investments in a given sector allowed us to build a comprehensive picture of the digital economy. We describe in detail the methodology of our estimation model in the Annex to this report.

It is no coincidence that the financial sector – called FinTech in its modernized form – creates the greatest potential for platform cooperatives. Following the example of traditional cooperatives, FinTech may draw from crowdfunding, common insurance, or distributed ledger technology (e.g. blockchain) to socialize access to financial products.

However, the areas of real estate and housing, digital media, travel, and events share a strong focus on the common interests of users, local communities, and creators. Commercial start-ups examined for the estimation model also used mechanisms that engage parties on the platform; hence the use of the cooperation model is a natural development. On the other hand, education and transport are the areas gaining interest of cooperativist advocacy due to the large share of platforms offering jobs, e.g. in the modes of gig economy or freelancer jobs.

In the context of economic activities so far foundational for cooperatives, digital platforms in the sectors of food production, health care, care services, energy (and, more broadly, closed circulation), and clothing trade also have a great potential. In the areas of industry 4.0 or agricultural technology (AgriTech), platform cooperatives are not applicable; rather, traditional production cooperatives may be a suitable business model.

\[
\begin{align*}
\text{€ 1.3 bln} & \quad \text{the total annual investment potential of platform cooperatives in Europe} \\
\text{PLN 50 mln} & \quad \text{total annual investment potential of platform cooperatives in Poland}
\end{align*}
\]
The total annual investment potential of platform cooperatives in Europe is as high as EUR 1.3 billion. This is the amount that technological initiatives based on the cooperative model can attract, assuming that cooperative mechanisms are used for as long as it makes organizational or economic sense. For Poland, the investment potential of platform cooperatives is PLN 47.7 million.

Taking into account the fact that these funds also mean stable jobs and local circulation of financial resources, the strengthening of platform cooperatives should be assessed as a development priority for Europe. Especially countries with a strong cooperative tradition, such as Poland, and countries wishing to strengthen their technological sovereignty based on solidarity should adjust investment incentives, public programs, and the regulatory environment to the needs of platform cooperatives.
From the point of view of public interest, platform cooperatives offer an effective – but also socially just – response to the indicated threats to the development of current digital economy. However, their growth is significantly hindered by what can be simultaneously perceived as their greatest advantage. Without an extremely fast growth and an extractive model, CoopTech does not attract the interest of private capital investors. Competition with entities that grossly undercut prices (price dumping) or operate outside the regulatory regime is also increasingly difficult.

Again, however, it should be noted that this model is attractive for other groups, which today might not be familiar with the advantages and capabilities of platform cooperatives. Particular attention should be paid to the benefits of the following stakeholders:

- **freelancers, gig workers, self-employed:** for whom platform cooperatives mean better jobs with decent employment conditions,
- **small entrepreneurs and family businesses:** empowered on a proprietary platform,
• **trade unions and trade associations**: platforms allow for the creation of real alternatives for their members, outside of the corporate model,

• **local governments, especially municipalities**: as recipients of new technologies (e.g. in the area of mobility, housing or smart cities) they benefit from the choice of locally embedded solutions,

• **government and public sector**: from the government’s point of view, the platform cooperatives guarantee technological sovereignty and stable growth without Big Tech’s capital drain.

These stakeholders must work together to develop platform cooperatives. It is certainly necessary to conduct information campaigns and raise awareness of the benefits of this model. Such actions should be directed primarily to technology recipients, such as local governments or potentially trade unions, but also to the parties using corporate platforms: small companies and employees. On the other hand, the role of the state must be to adjust regulations to the changing needs and capabilities of the cooperative sector, which already draws from the development of digital technologies. Providing investment capital is also within reach of a more “patient” public investor, especially in the context of the implementation of an industrial strategy.

Therefore, public policy recommendations cover all the identified stakeholders. With regard to non-governmental entities, we suggest the following actions:

1) **Taking into account the criteria of “solidarity by design” when purchasing technological solutions** by e.g. awarding points in contracts and tenders for elements of the management model such as democratic participation, reinvestment of profits in the local community and employees, and high transparency of processes.

2) **Conducting information campaigns promoting platform cooperativism solutions**, whether by promoting existing platforms, communicating about selected suppliers, or pushing corporate companies to modify their models in a cooperative direction.

3) **Accelerate own platform initiatives**, which will enable building a low-cost ecosystem of cooperative innovations based on a model that functions in a start-up environment. This can be done by rewarding and supporting internal entrepreneurship (intrapreneurship), investing in training, cooperation with universities, student environments, or hiring employees from the IT sector to jointly build technological solutions.
The role of the state administration is more demanding, but it creates the possibility to supplement development strategies with interdisciplinary issues, addressing technological entrepreneurship and improving the quality of life at the same time. In the case of Poland, the currently implemented Strategy for Responsible Development is incomplete in this respect, while the area of digital economy is treated very narrowly, only as a technology supplier for the Polish industry. However, the long-term strategy must take into account not only the incentives for the expansion of industry but also address the issues of managing the organization of production, employment model, and information exchange – which is mostly mediated by digital platforms.

Recommendations for EU policy include:

1) **Revision of the VentureEU investment strategy**, focusing more on passive investing in platform cooperatives. The estimated capital gap of nearly EUR 1.3 bln per year can be filled in 50% by directing half of VentureEU funding specifically to CoopTech solutions (assuming the VC standard of exits and reinvestments in five years).

2) **Amendment of the European Cooperative Society by taking into account platform cooperatives**, including e.g. making the establishment and decision-making process more flexible, taking into account the role of investors and stakeholders, adjusting the rules to the functioning of data cooperation with the participation of data depositaries, strengthening the role of withdrawable shares (in the community share and mutual share model), and creating simple mechanisms for resolving conflicts on the EU legal arena.

3) **Promotion of a European brand of tech cooperativism** by leveraging European cooperative heritage and the principle of “solidarity by design.” European tech community is still struggling to create a uniform, recognizable narrative in the area of new technologies, countering American Big Tech and Chinese state digital titans. “European CoopTech” brand may become a unique symbol of EU model of development and an efficient engine of solidary development, using the potential of platform cooperatives.
6. Where Can I Learn More?

Resources:

Platform Cooperativism Consortium:
www.platform.coop

Platform Cooperative Development Kit:
https://wiki.fluidproject.org/display/fluid/Platform+Cooperative+Development+Kit

2018 and Onward: Where we are at with Platform Cooperativism:

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The estimation model was constructed basing on data regarding VC (Venture Capital) sector investments in Europe in 2018. Data are sourced from State of European Tech 2018 Atomico report and were prepared using dealroom.co database.

In order to estimate the possibility of applying the cooperative model in a given sector, a sample of 150 companies spanning 30 technology industries was randomly chosen from dealroom.co database. The sample was studied using CTI (Cooperativity of Technology Index), which relies on three dimensions of a given tech company:

• MP (Multi-sided Platform): the solution is a platform which gathers users, producers, employees etc.;
• SE (Shared Experience): there exists a collective experience of laboring, using data or other, that incentivizes in-between communications;
• MI (Market Inefficiencies): there exist significant market failures (e.g. susceptibility to monopolization, uneven negotiating power) that incentivize cooperation.

The abovementioned dimensions were coded as follows: $MP = [0, 1]$, $SE = [0, 1, 2]$, $MI = [0,1,2]$. The CTI is the result of weighted mean of those variables, for weights $w_{MP}=0,5$, $w_{SE}=0,25$, $w_{MI}=0,25$:

$$CTI = \frac{w_{MP}MP + w_{SE}SE + w_{MI}MI}{w_{MP} + w_{SE} + w_{MI}}$$

The CTI index was used to estimate what portion of investments in a given sector has a cooperative potential. Some sectors were aggregated. The results of estimation are in the table below.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Fintech</th>
<th>Media</th>
<th>Home &amp; Real Estate</th>
<th>Travel &amp; Events</th>
<th>Transportaion</th>
<th>Education</th>
<th>Food</th>
<th>Energy</th>
<th>Fashion</th>
<th>Health &amp; Wellness</th>
<th>Enterprise Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 (M $)</td>
<td>380,6</td>
<td>243,3</td>
<td>168,5</td>
<td>143,9</td>
<td>99,4</td>
<td>95,3</td>
<td>62,8</td>
<td>43,2</td>
<td>40,1</td>
<td>35,0</td>
<td>25,9</td>
</tr>
<tr>
<td>2018 (M EUR)</td>
<td>342,5</td>
<td>218,9</td>
<td>151,7</td>
<td>129,5</td>
<td>89,5</td>
<td>85,8</td>
<td>56,5</td>
<td>38,9</td>
<td>36,1</td>
<td>31,5</td>
<td>23,3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 (M $)</td>
<td>21,5</td>
<td>19,3</td>
<td>10,4</td>
<td>6,5</td>
<td>5,4</td>
<td>4,4</td>
<td>0,6</td>
<td>0,0</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>2018 (M EUR)</td>
<td>19,3</td>
<td>17,4</td>
<td>9,3</td>
<td>5,8</td>
<td>4,9</td>
<td>3,9</td>
<td>0,5</td>
<td>0,0</td>
<td>0,0</td>
<td>0,0</td>
</tr>
</tbody>
</table>

The total investment potential of platform cooperatives in Europe amounts to EUR 1,266 mln annually. Investments in the VC sector in Poland add up to 0.87% of total European VC investments, so the investment potential in Poland is estimated at PLN 47.7 mln annually.
## Annex: Methodology of the estimation model

The studied sample of 150 tech enterprises:

<table>
<thead>
<tr>
<th>Walliance</th>
<th>TiendAnimal</th>
<th>Simarks Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quipu</td>
<td>iKentoo SA</td>
<td>VMRay</td>
</tr>
<tr>
<td>Upflow</td>
<td>Strong Roots</td>
<td>Ubiqu</td>
</tr>
<tr>
<td>HelloPet</td>
<td>Vultus</td>
<td>H6</td>
</tr>
<tr>
<td>Hedvig</td>
<td>FoodStars</td>
<td>Trustpair</td>
</tr>
<tr>
<td>Snik</td>
<td>SellIntegro</td>
<td>Wifirst</td>
</tr>
<tr>
<td>Livestorm</td>
<td>Ecopoint Medical</td>
<td>Modern Times Group</td>
</tr>
<tr>
<td>Fifty4u</td>
<td>ProGove</td>
<td>Sorted</td>
</tr>
<tr>
<td>Pento</td>
<td>WaveOptics</td>
<td>Firmwave</td>
</tr>
<tr>
<td>Orderchamp</td>
<td>Cinemood</td>
<td>SIRO Ireland</td>
</tr>
<tr>
<td>Anokion</td>
<td>Skills Matter</td>
<td>Vee</td>
</tr>
<tr>
<td>Ability Pharma</td>
<td>Prolific</td>
<td>OneFit</td>
</tr>
<tr>
<td>Inotrem</td>
<td>TuSpeaking</td>
<td>Minute Media</td>
</tr>
<tr>
<td>Croivale</td>
<td>Knowing</td>
<td>Teqna</td>
</tr>
<tr>
<td>Urgences Docteurs</td>
<td>Knoma</td>
<td>Fitt</td>
</tr>
<tr>
<td>Monadd</td>
<td>MedalLv</td>
<td>Blow</td>
</tr>
<tr>
<td>Cazoo</td>
<td>Lockwood Publishing</td>
<td>Recycle</td>
</tr>
<tr>
<td>Ubi Transports</td>
<td>BetBright</td>
<td>Kokoon</td>
</tr>
<tr>
<td>Air Innovations</td>
<td>Strafe</td>
<td>Dash</td>
</tr>
<tr>
<td>Yasa</td>
<td>Fatshark</td>
<td>NetDoktor</td>
</tr>
<tr>
<td>Boundary Technologies</td>
<td>Vemiettede</td>
<td>LexGoApp</td>
</tr>
<tr>
<td>Oupick</td>
<td>Semiovo</td>
<td>LEVERTON</td>
</tr>
<tr>
<td>Springlane</td>
<td>SkyCasa.it</td>
<td>Genie AI</td>
</tr>
<tr>
<td>FamilyNet (Looping)</td>
<td>Consorto</td>
<td>Octimine</td>
</tr>
<tr>
<td>Hannun</td>
<td>Jukedead</td>
<td>Vivoticket</td>
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<tr>
<td>Blink</td>
<td>Acoustic</td>
<td>Event Manager Blog</td>
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<tr>
<td>Freeda Media</td>
<td>Epidemic Sound</td>
<td>MEL Science</td>
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<tr>
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<td>Alva Technologies</td>
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<tr>
<td>Stream Root</td>
<td>Vivoka</td>
<td>Boxine</td>
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<tr>
<td>VoxPopMe</td>
<td>Zolar</td>
<td>Buit</td>
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<tr>
<td>ME Energy</td>
<td>ME Energy</td>
<td>Korus Kids</td>
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<td>4hundred</td>
<td>Volocopter</td>
<td>Koru Kids</td>
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<tr>
<td>Blue Ocean Robotics</td>
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<tr>
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<td>Buit</td>
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<td>Pret a Pousser</td>
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<tr>
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<td>Bond International</td>
<td>Pro Farm</td>
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<td>T-Group</td>
<td>Agrosavre</td>
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<td>Ulma Conv. Comp.</td>
<td>Biome Makers</td>
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<tr>
<td>Taylor &amp; Hart</td>
<td>Glutton</td>
<td>Lizard</td>
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<td>Market Orders</td>
<td>Lavorazioni Industriali</td>
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<td>lBreve</td>
<td>Stillemans</td>
<td>Miss Group</td>
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<tr>
<td>TravelLocal</td>
<td>Wilo Group</td>
<td>Muzmatch</td>
</tr>
<tr>
<td>Leisure Group</td>
<td>EvelQure</td>
<td>SAFE</td>
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<td>Biotechnologies</td>
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<td>Guardtex</td>
<td>Wetime</td>
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<tr>
<td>TravelPerk</td>
<td>SWISSsto12 SA</td>
<td>Lunc</td>
</tr>
<tr>
<td>Spectroplast</td>
<td></td>
<td></td>
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</tbody>
</table>

The studied industry and sub-industry sample:

<table>
<thead>
<tr>
<th>MAIN SECTORS</th>
<th>Investing</th>
<th>Online Travel Agency</th>
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<tbody>
<tr>
<td>Fintech</td>
<td>Financial Management Solutions</td>
<td>Accommodation</td>
</tr>
<tr>
<td>Enterprise Soft</td>
<td>Payments</td>
<td>Travel Analytics &amp; Software</td>
</tr>
<tr>
<td>Health</td>
<td>Mortgages &amp; Lending</td>
<td>Booking &amp; Search</td>
</tr>
<tr>
<td>Transportation</td>
<td>Insurance</td>
<td>Business Travel</td>
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<tr>
<td>Home</td>
<td>Biotechnology</td>
<td>Logistics &amp; Delivery</td>
</tr>
<tr>
<td>Media</td>
<td>Pharmaceutical</td>
<td>In-Store Retail &amp; Restaurant Tech</td>
</tr>
<tr>
<td>Energy</td>
<td>Pharmaceutical</td>
<td>Innovative Food</td>
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<tr>
<td>Marketing</td>
<td>Medical Devices</td>
<td>Agritech</td>
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<tr>
<td>Fashion</td>
<td>Health Platform</td>
<td>Console &amp; PC Gaming</td>
</tr>
<tr>
<td>Travel</td>
<td>Logistics &amp; Delivery</td>
<td>Mobile Gaming</td>
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<tr>
<td>Food</td>
<td>Search, Buy &amp; Rent</td>
<td>Betting &amp; Gambling</td>
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<tr>
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<td>Mobility</td>
<td>Board Games</td>
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<tr>
<td>Education</td>
<td>Autonomous &amp; Sensor Tech</td>
<td>Real Estate Software</td>
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<tr>
<td>Gaming</td>
<td>Maintenance</td>
<td>Construction</td>
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<td>Real estate</td>
<td>Content Production</td>
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<td>Publishing</td>
<td>Real Estate Services</td>
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<td>Social Media</td>
<td>Public Safety</td>
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<td>Streaming</td>
<td>Cloud &amp; Infrastructure</td>
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<td>Semiconductors</td>
<td>CleanTech</td>
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<td>Energy Efficiency</td>
<td>Data Protection</td>
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<td>Energy Providers</td>
<td>Identity &amp; Access</td>
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<tr>
<td>Sports</td>
<td>Waste Solution</td>
<td>Sport Platforms &amp; Application</td>
</tr>
<tr>
<td>Wellness &amp; Beauty</td>
<td>Water</td>
<td>Sport League &amp; Club</td>
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<tr>
<td>Legal</td>
<td>CRM &amp; Sales</td>
<td>Sport Media</td>
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<tr>
<td>Events</td>
<td>Marketing Analytics</td>
<td>Self-Service &amp; Lawyer Marketplace</td>
</tr>
<tr>
<td>Kids</td>
<td>Autech</td>
<td>Legal Documents Management</td>
</tr>
<tr>
<td>Agritech</td>
<td>Apparel</td>
<td>Regtech &amp; Compliance</td>
</tr>
<tr>
<td>Hosting</td>
<td>Accessories</td>
<td>Legal Information</td>
</tr>
<tr>
<td>Dating</td>
<td>Footwear</td>
<td>Intellectual Property</td>
</tr>
</tbody>
</table>