



Fondazione
Giangiacomo
Feltrinelli

**Transformative
Economies
From the Circular
Economy
to the Green
New Deal
FeltrinelliCamp
2020**

edited by
Anna Pettinaroli

**Utopie / 101
Globalizzazione**

UTOPIE

Transformative Economies

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The Text

The imperative to review the predominant economic models has never been more important than it is now. It is essential to take this moment of disruption caused by the Coronavirus pandemic as an opportunity to rebuild our economic system by revising our development models. We need to identify new actions and strategies that can drive and speed up the transition towards new economic models, new roles for sustainable development, and new models of solidarity and inclusiveness.

FeltrinelliCamp 2020's ultimate goal was to highlight the conditions that enable the advance of an ecological transition sustainable for all, economically, socially and for the territory's development, whilst still remaining sensitive to issues of community well-being and environmental justice.

Such as the previous edition, FeltrinelliCamp 2020 welcomed several dozen of carefully selected researchers, young scholars, practitioners and activists from many parts of the world for a two-day intensive workshop. This volume collects the outcome of this work.

Edited by Anna Pettinaroli, it contains the reports produced by the work of the seven thematic tables and, in addition, texts by Claudio Zara, Maria Savona and Eugenio Caverzasi.

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Transformative Economies

From the Circular Economy
to the Green New Deal

FeltrinelliCamp 2020

Working Group 2: Financial Instruments and Technologies

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General framework

World economy is under stress and we are in the middle of the deepest recession in memory, even more severe than the “Great Depression” (1929-1930) and for sure worse than the “Great Recession” (2007-2009). In fact, as recently highlighted by the UN, the Covid-19 pandemic is not just a health crisis, as it is affecting societies and economies at their core, increasing poverty and inequalities at a global scale (United Nations, 2020). This will strike companies and business dynamism, resulting in a sharp surge of bankruptcies and business failures in the forthcoming months.

But global economy was already under threat from another phenomenon: climate change. Indeed, its ripple effects are likely to be a defining challenge of the 21st-century economy, resulting in pervasive socio-economic consequences for almost all the countries across the world. However, it will also impact several aspects of life not necessarily related to economic activity, such as health and well-being, people’s capabilities and environmental quality (OECD, 2015).

Thus, the combination of Covid-19 pandemic and climate change will require an unprecedented collaboration between public and private sector, to shift the way of producing goods to other methods which

are able to guarantee and drive the development by pursuing sustainability and positive society-wide benefits. Governments worldwide can prepare for the future by investing in innovation for long-term (and more sustainable) growth, also preserving the SDGs set in the UN 2030 Agenda.

In this scenario, the contribution of both technological change and innovative financial instruments will be fundamental. The former has important consequences for individuals and businesses, but also for employment, wages and workplace organization (Goos et al., 2019); the latter can attract funding from public and private investors in areas of strong interest, but which are perceived as risky by investors: examples include sectors with high economic growth or innovative business activities.

Given these premises, the participants to the working groups started the discussion by focusing on a concrete case study regarding one of the most dramatic topics in the circular economy: “*How to recycle electronic devices?*” In fact, the current take-make-waste extractive industrial model is no longer sustainable, requiring a shift to a more circular model, where reuse and recycling prevail over raw materials and extractive ways of working.

However, in order to be successful in the long term, such initiatives need to be profitable: this last point constitutes one of the main barriers to change, although several researchers pointed out how companies can identify strategies able to create at the same time economic and environmental value, helping to maximise the contribution to sustainability rather than to economic capital efficiency alone (e.g. Figge and Hahn, 2012).

Besides profitability, this particular case study allowed us to move to a wider perspective, highlighting another critical point of the discussion, which constitutes the core of the working groups: “*How to finance the transition to more sustainable business models?*”

Several financial instruments to raise funds already exist, each one characterized by peculiar advantages and disadvantages. Crowdfunding is one of the most accessible and successful ways of collecting money for a project, and the crowdfunding market is expected to witness a growth at a CAGR of almost 6% from 2020 to 2024³⁷. Moreover, as a consequence of the sudden outbreak of the Covid-19, several non-profit organizations are providing financial support through crowdfunding campaigns. Of course, there are also several risks connected to this practice, such as the early failure of the project or the lack of guaranteed returns.

Another financial instrument is microfinance, which is particular useful to target both individuals and small businesses who lack access to conventional banking and related service, and to give them the opportunity to become self-sufficient. Moreover, it became the norm also in the richest countries, as in the case of the French initiative “Project Banlieus”, a large-scale project aimed at creating jobs and social contact in underprivileged neighbourhoods of Paris (BNP Paribas, 2008).

Technological innovations play a key role in spreading all those financial instruments, starting from the crowdfunding platforms and ending with the well know blockchain, which allows to eliminate delays in traditional finance processes, while increasing transparency and reducing reliance on intermediaries (KPMG, 2019). Even several central banks around the world are now considering their own respective digital currencies, based on the blockchain, the technology that also underpins cryptocurrencies such as Bitcoin.

However, there is not a financial instrument which prevails over the others, as it depends on the typology of the project, the context in which it has to be developed and the complexity of all the actors involved.

37 Statista (2020).

Critical issues and opportunities

Once defined the general framework, the participants to the working group focused on their personal experiences in order to highlight critical issues for the inspiration of further discussions:

- it often exists a lack of networking between all the actors involved, combined with the scarcity of infrastructures (specifically true for the reuse of technological raw materials, but easily applied to other contexts, such as the construction industry);
- it raises the importance of a cultural shift, not only among citizens but also in term of the way of producing goods, with the aim of rethinking both the consumption and the production value chains;
- it is fundamental to combine the transition to new economic models with a system of incentives bound to all the stakeholders, from the consumers to the enterprises;
- to support this paradigm shift it is important to collect the adequate amount of money. As already mentioned before, several financial instruments already exist, so it is not necessary to create something new but, on the contrary, to select the most suitable ones depending on the project.

Subsequently, given these four points, the discussants listed three main potential constraints to the new transition economies and needs to be addressed as soon as possible.

Constraints

- Governments (but only if they are reluctant to do their parts in ensuring that the activities that have led to the destruction of the environment are reduced). In this case, public initiatives, such as “Fridays for future” that began in August 2018, can put

pressure on politicians against the lack of action. Even though everyone is responsible for his/her decisions and behaviours, it will be impossible to solve the existing crisis without strong government decision-making and regulations.

- The information gap between citizens and science. Although the awareness among the population has been increasing in the last few years, the scientific method and facts are not always enough to win over the sceptics, and there are still several people who are suspicious of the findings of science.
- Financial education: if money is not a constraint, it is important to teach how to manage money and how to invest it. In this direction, designing tools that will help consumers understand themselves and the biases that are likely affect their decision may contribute to a better self-control and greater actions (OECD, 2019).

Needs

- Citizens engagement. Transition theories confirm that circular behaviour requires awareness; in fact, in a unique participative approach, the city and residents will therefore test advanced technological solutions together, through online and offline activities.
- Focus on municipalities. In fact, municipalities play a crucial role in the transformation towards a more circular economy, as they can take action by supporting locally rooted transitions with small and medium-sized companies and by creating incentives for companies to develop their business models and investments in a more circular direction (EIT Climate-KIC, 2019).
- Creating values and new revenues schemes for companies. To be successful, the transition must be profitable in the long run:

in fact, businesses of all sizes play a crucial role in the fight against climate change, as the adoptions of more sustainable practices will help to mitigate global warming, but without forgetting the economic returns of such investments.

Thus, it raises the importance of developing a sort of “ecosystem” which includes both companies and consumers/citizens, supervised by a strong engagement by a public actor (not necessary the Government), guided by the same spirit of unity which led to the establishment of the United Nations after the World War II. Moreover, such ecosystem should be at the same time “multilayers”, as it is fundamental to engage with the local communities by involving directly the citizens and businesses in the development of projects.

To sum up, “local communities”, “engagement”, “awareness” can be considered the keywords of the working group’s discussion, which inspired the following proposal.

Proposal

The proposal is based on the project of “Antwerp Circular South” (UIA, 2020), which has been developed in the city of Antwerp (Belgium) with the aim of looking for circular solutions for its waste/materials, water and energy streams. “Circular South” offers unique opportunities to guide a growing new community in co-creating their own local circular economy, providing an example of development of an “ecosystem” which is able to involve all the stakeholders of an area, be it a town, a region or a nation as a whole.

The key element which caught the eye during the discussion is the importance of the technological innovation. In fact, circular behaviours will be automatically rewarded by an online token, through a blockchain-based reward and exchange system: this strategy has the

virtue of increasing the awareness and encouraging more sustainable habits among the involved citizens.

Of course, this typology of project is more feasible in scaled-down settings, as in the case of a town; however, “*the flap of the butterfly’s wings can cause the tornado*”. Thus, the implementation of a wide range of local initiatives is a part of the initial conditions of an inter-connected complex web which is able to increase both the awareness and the efforts.

The city of Milano, or one of its districts, looks a suitable candidate for a project aimed at reducing the waste production per capita and/or to increase the recycling rate. Although the recycling rate is higher in the northern regions of Italy³⁸, there is room for further improvement; furthermore, a large and well-known city as Milano can constitute a sort of leading case study for the rest of the country.

First of all, this project requires funds to be developed. Among of the existing financial instruments, crowdfunding can be considered the most appropriate tool to collect money in a “bottom-up” logic, as it allows a direct involvement of the citizens, who will be the recipients of the project itself, also during the design phases.

Furthermore, it is important to combine the crowdfunding with adequate economic incentive for donors (crowdfunding rewards based). We identified two potential typologies of donors: citizens and local businesses (shops, enterprises and so on). For the former, blockchain allows to deploy and issue digital tokens (“Milano eco-tokens”) as a reward for the participation to the crowdfunding. Given the fact that we are running out of time and there are only 11 years left to prevent irreversible damage from climate change (United Nations, 2019), the incentive mechanism through tokens should be connected to the passing of time: the sooner people donate, the higher the reward. For

³⁸ The “North East” area is that with the higher recycling rate (68%), followed by “North West” (64%), “Center” (51%) and “South and Islands” (47%) (Ecocerved, 2019).

local business the participation to the crowdfunding will help to improve the reputation and to enlarge the network: both these positive externalities may result in an increase in the number of customers, especially among those who share the same values. Just to mention an example, shops which contributed to the crowdfunding may display stickers in their windows, showing their support to the project.

Lastly, to mitigate the risk connected to crowdfunding, such as an early failure or the lack of a guaranteed return, this financial instrument should be developed in partnership with bank groups (a sort “joint crowdfunding”), an approach which has been getting growing attention. In fact, entrepreneurs often collect money in order to improve their financial position and to obtain a bank loan: that means banks and crowdfunding platforms have a mutual interest in working together (BNP Paribas, 2018).

Once the project is ready to start, citizens who are able to either reduce the waste production per capita or increase the recycling rate will receive further “Milano eco-tokens” in proportion to the improvements that have been made.

The technology, and especially the blockchain, will help to develop a dedicated wallet: only the person who has the private key for that address can access the respective tokens, so this person can, therefore, be regarded as the owner or custodian of that token. Moreover, a dedicated app on the smartphone will display to each citizen data related the progress achieved on a monthly basis.

All the collected tokens can be spent, for example, on sustainability solutions, such as bike sharing and electric vehicles, or converted into discounts for monthly seasonal tickets of subway and trains, thus generating a virtuous cycle. In fact, the European Green Deal seeks a 90% reduction in EU’s greenhouse gas emissions by 2050, and transport currently accounts for a quarter of them (European Commission, 2019).

In conclusion, the key points which should go beyond the boundaries of this project are:

- a “bottom-up” way of collecting money at local basis, also by involving the citizens in the design phases: crowdfunding looks the most adequate financial instrument, especially if combined with banks group to mitigate the risks for donors;
- the role of technology, which is fundamental to support and enhance this typology of projects. Moreover, cryptographic tokens on the blockchain have lower issuance and management costs involved.

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