

# Corazones against Covid

## *fintech to multiply the impact of money*

*Multiply the impact of recovery funds for SMEs. How? Fintech innovation enables cities and regions (representing >17 million people so far) to make recovery funds for local SMEs circulate faster*

## Inspiration

Our communities are being hit hard by the Covid19 crisis, especially small and medium sized enterprises. As a consequence Europe faces a serious risk of a deep and lasting recession. It is in the interest of both private investors and regional authorities to join forces to support SMEs. However, how can we maximise the impact of these funds and create a truly sustainable recovery?

The Impact Multiplier system is based on a tried and tested platform that will boost recovery by increasing the velocity, the circulation and use of recovery funds and private investments. By making money circulate faster and more often among local SMEs, the impact of recovery and investment funds will be multiplied. This initiative is a B2B approach that connects with the European Solidarity Voucher Scheme which stimulates B2C consumption. The revenue from this system can bring about a return on investment, as well as be re-granted towards civil society activity for a truly healthy and sustainable recovery.

## What it does

Local governments are eagerly looking to generate a recovery of businesses in their communities. So are private investors, because if nothing happens they will suffer severe losses on their investments. Both sectors share a common interest to increase the impact of funds for recovery.

The Impact Multiplier system is a fintech platform based on the software Cyclos, which enables the Corazones team to build and maintain a financing network for business communities, within an interconnected payment environment.

Funding from various sources will be channeled through the Impact Multiplier, a dedicated payment platform for SMEs. The funding is digitally rooted to multiply its impact in two ways:

1. The money will circulate between the participating SMEs for a fixed period. This increases the income of all SMEs, including those companies that don't receive government support, while they do suffer from the economic crisis caused by Covid19. Businesses will see that through cooperation they earn greater revenues, because their colleagues and competitors are to earn and spend.
2. A small daily fee, a negative interest, on the circulating money incentivizes participating

enterprises to spend quickly, allowing others to earn and spend more within the community, all the while healing the recession and socio-economic damage.

Previous use of this technology in local systems shows that this enables money to circulate at least three more times within a community of users than otherwise would be the case. Applied to recovery funds and investments, this could make a substantial contribution to the recovery of small enterprises and the regions they operate in. The proceeds from the negative interest rate will go to maintain and extend the system, repay the investments, and also fund civil society actors in order to induce full-scale recovery towards a healthy and sustainable democracy in Europe and greater social inclusion.

The additional income for SMEs generated through the system brings additional tax income for governments to retrieve part of their investments in recovery.

It is important to highlight that this system can continue to operate beneficially far beyond the Covid19 crisis. It can keep on stimulating local businesses or even pan-European communities long after the recovery is complete. It would not only add to socio-economic stability, through reinvestment in civil society, it will also add to the democratic fabric of our communities, preventing the tendency towards radicalisation which crises always bring with them. Comparable smaller-scale models have run using Cyclos within business networks to great effect, and show that this system would lay the foundation to flourishing communities for years to come.

## **Business case**

For the first pilot we would need:

- A regional government that commits to spend at least 20 million euro through the dedicated payment system, either through public funds alone, or with private investors involved.
- At least 10,000 SMEs would preferably be needed to participate in the pilot, or else relative costs would be higher - the larger the network, the lower the marginal costs. A part of these companies, 2,000 SMEs, are eligible for recovery support and will receive the 20 million euro in any case. To incentivise these eligible companies to choose to receive the funds within the Impact Multiplier system instead of regular euros, they will receive a 7.5% bonus on top of their support. So a company eligible for 10,000 euro, would receive 10,750 euro when it first joins this system. The other 8,000 SMEs will join because the 2,000 SMEs can only spend the total sum of 20 million euro with other SMEs in the payment system, and potential clients already exist.

### **Expenditures:**

- 7,5% premium costs 1.5 million euro.
- Pilot preparation and launch: 0.5 million euro.  
Activities: publicity, engagement with local authorities, outreach and community building, configuration and customisation of the software, onboarding of SMEs, set up cooperation with financial partner,

- implementation costs year 1: 0.5 million euro  
Activities: helpdesk, publicity, brokering, administration, developing new features if needed, outreach to civil society sectors

### **Sources of income:**

- The negative interest fee will be set at 10% a year. This means 2 million euro revenue accrued at the end of year 1.  
The fee stimulates a high circulation of the money. If the multiplier is 6 (which is the minimum number in existing projects of this size), total turnover would be 120 mln euro = 12,000 euro for each participating company. The total costs for the SMEs are 2 million = 200 euro per SME. So 200 euro to have 12,000 euro (additional) turnover.
- In year 2 the project reaches its break-even point.
- Initial funding needed for a full pilot is 0.5 million euro.

According to Eurostat, 97.8% of companies in Europe are SMEs or micro-enterprises, more than 23 million companies. Reaching even a fraction of these companies at local level would have enormous potential for long-term impact.

## **How we built it**

Cyclos is a fintech software that won the 2014 E-pay Innovation Award (ETA), and was supported by the Gates Foundation and the European Commission (Competitiveness and Innovation Programme, 2014-2017) to realize pilots such as Sardex in Sardinia.

Cyclos has over 10 million end users worldwide, and we will build a dedicated tailor-made platform for this project.

To provide a sense of previous experience:

Cyclos user Sardex, an EU-backed programme operating since 2009, reaches a multiplier between 6 and 12 times of mutual credit-based money, resulting in 20,000 euro of additional annual income for the average SME, making significant impact for the 5,000 SMEs participating in this dedicated payment system, adding up to 100 million Euros of additional income annually.

The innovations in Cyclos are embedded in a feature-rich online banking solution that is easy to use and maintain, flexible, secure, and highly customizable. Cyclos comes with a range of banking options to facilitate the payment environment dedicated to increase the impact of money: a loan module, a complete e-commerce system with a marketplace, and high and low-end mobile access channels.

Cyclos is built with the following technologies & frameworks.

### **Platform**

[Java SE](#): Development language

- [JPA](#): Persistence framework
- [Spring](#) / [Spring Boot](#): Architectural layers
- [Querydsl](#): Unified Queries for Java
- [GWT](#): Google Web Toolkit (Java libraries, GUI)
- [Gradle](#): Build Tool
- [OpenAPI](#): REST API
- [Firebase](#): Messaging & notifications

## Database

[PostgreSQL](#)

## Front-end

- [Angular](#)
- [Bootstrap](#)
- [Node.js](#)

## Mobile app

[Phonegap](#)  
[Apache Cordova](#)

## Other

[Crowdin](#): Localization management (translations)  
[Jenkins](#): Build automation, testing  
[Jira](#): Project management & issue tracker  
[Visual studio code](#): Development tool (IDE)  
[GIT](#): Repository, revision control  
[K6](#), [InfluxDB](#) + [Grafana](#): Performance & load testing  
[Mediawiki](#): Documentation

## Challenges we ran into during the hackathon

- Getting in touch with local and regional authorities during the hackathon.
- At the hackathon we got in touch with the initiator of the “European solidarity vouchers for tourism” project. Because this project is highly compatible and complementary with ours, we decided to join forces. In the voucher project the focus is on consumers: they will be able to show their solidarity and buy vouchers that enable loans for vulnerable businesses in the tourism sector, but also add more money to get its impact multiplied. It was quite a challenge to finetune the cooperation.

## Accomplishments that we're proud of

- During the Hackathon and in the run-up to it, regions and cities showed initial interest in using the Impact Multiplier with potential use in the city of Barcelona and the regions of Liverpool, Normandy, Eastern Flanders, the Netherlands, Thessaly and some interest from regions in Italy.

- Cyclos can be configured and customised for use by local governments within 4 weeks.
- Cyclos is used by 14 banks to facilitate mobile wallets used by many millions of and micro businesses in Africa and Asia.
- Fintech innovations like the *hourglass-counter*, a tool that calculates how long money should circulate between SMEs in the region before it can be used outside the payment environment.
- Extensive civil society networks and outreach capacity to build up the networks required to take this off the ground.
- We connected the Multiplier Impact system with the EU Solidarity Voucher Scheme to connect the business network B2B dimension with the B2C dimension of stimulating consumption.

## What we did during the weekend

- We brought together a powerful team of tech professionals, economists and civil society actors.
- We got in touch during this hackathon with many brilliant and enthusiastic people pursuing all kinds of different projects. Amongst these, we learned of the initiative of the solidarity vouchers which could be combined seamlessly with the effort of the consortium of regions. The tool and the organisation of SMEs can be the same, while additional in the approach is the involvement of citizens to invest money in the future of vulnerable businesses in their community and in communities where they want to enjoy holidays in later years.
- We formulated our project idea and refined it and honed the pitch.
- We formulated our business plan, and defined concrete next steps in order to proceed.
- We designed our website and video.
- We have begun to programme the Cyclos settings to operate the Impact Multiplier system.

## What we learned

- Many regions and cities are eager to become part of a European broad initiative to support the recovery of small companies.

## What's next for corazones against covid19: fintech to multiply the impact of money

- Extend the consortium and create a pan European network with partners in as many European countries as possible.
- Establish exchange of information with non-EU cities and regions that also want to use the Impact Multiplier.
- Raise funds for the startup pilots in each EU Member State;

- Create a forum for sharing of experiences, best practices etc. of the governmental consortium partners and the business associations involved to further improve the use of the Impact Multiplier.
- Join forces with the European Solidarity Voucher Initiative and link it into the Multiplier system.

## Try it out

- [www.impact-multiplier.eu](http://www.impact-multiplier.eu)
- [www.cyclos.org](http://www.cyclos.org)