

# M+Climate

An Alternative Currency System Backed by Positive Climate Impact that Rewards Climate Positive Consumer Choices

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## 1. Summary

The M+Climate token (M+C)<sup>1</sup> is a reward/ alternative currency system that is created through the voluntary retirement of carbon credits, thus creating a net GHG emission reduction. These M+C tokens are primarily issued to the entity that retires the carbon credit, usually within the context of fulfilling a voluntary net zero greenhouse gas emissions pledge (or net zero (NZ) pledge in short) or climate neutral (CN) pledge.

These M+C represent a financial asset (currency) that stays in circulation and can be used by individuals, entities and communities (= a collective of entities) of all sizes to incentivise and rewards climate positive action (to achieve further reductions of their collective residual carbon footprint).

Carbon credits are typically retired by entities that have made a NZ or CN pledge. This means that the community of entities that have committed to positive climate action are the quasi “issuing bodies” and “decentralized central bank” of this alternative currency system (and not conventional central or commercial banks).

The proposed governance system for M+C calls for a “global community development fund” and “local community development funds” that are funded through a) an M+C issuance tax/fee and additional voluntary contributions. These funds are to be managed via quadratic voting and co-funding, which means that the allocation of taxes is democratically controlled by ALL M+C token holders.

M+C thus expands the role of traditional currency (store of value/unit of account to organize transfer of value in an economic system) in two important aspects: a) it is impact-backed, and b) it facilitates community participation in the allocation of public budgets.

The M+C token is by its nature a universal currency, which means it represents a global platform that is then localized into a community-based currency to create intuitive and relatable user experiences (i.e. an M+C based token that is denominated in GBP for use within a use case in the UK).

## 2. Introduction

### **M+C tokens represent a social good/natural capital asset, issued as result of creating a net GHG reduction**

A carbon credit documents an achieved & verified reduction of GHG emissions by one ton of CO<sub>2</sub>eq. Within a compliance environment, it is used as the license/right to emit one ton of CO<sub>2</sub>. When a carbon credit is *retired* instead of used as a “right to emit” it creates a *net GHG emission reduction* by negating its otherwise embedded right to emit a ton of GHG

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<sup>1</sup> There could be other M+ tokens around other SDG related outcomes in the future which could then be called M+Gender, M+Employment, ....) that reward measurable contributions to such outcomes.

emissions. This net GHG emission reduction represents *social value / capital* as the net reduction reduces the impact of climate change (by one ton) for all (the definition of a social good, benefitting all without exclusion).

In other words, an M+ is a private reward (to the entity that makes a net GHG emission reduction permanent) for protecting the largest global “commons” (= the atmosphere) (whereby “commons” is a shared resource to which use access is not or can not be restricted, usually leading to the “tragedy of the commons” problem (=overuse)).<sup>2</sup>

**An M+C token is created/issued when an entity (account holder A in the figure below) retires a carbon credit within an approved carbon credit registry<sup>3</sup>. The number of M+C in circulation is therefore always less or equal to the total quantity of retired carbon credits.**

M+C supplements and boosts the existing “linear” voluntary carbon market that is using a carbon credit to offset a carbon footprint within a time period by retiring it in order to make a climate neutral or net-zero claim, without envisioning a subsequent use.

An M+C token keeps the social value of a retired carbon credit alive and assigns it (in part (see below) to the entity that retired it (= the entity that has retired the carbon credit has created a public good)).<sup>4</sup>

Its value to society & the planet is thus kept in circulation where it is used as a store of value (money) to enable additional, high utility use cases and grow the community of entities that make net-zero/climate neutral pledges.

The entirety of circulating M+C tokens (within an entity or community/economy) represents the accumulated net GHG emission reduction that has been achieved to-date.<sup>5</sup>

M+C can be used within a community / net zero economy as a store of value to settle transactions between them, reward climate friendly actions and grow the ecosystem of entities that have made net-zero pledges. M+C are an additional, liquid asset to fuel this economy and finance positive climate action.

Communities can interconnect with each other through M+C-based payment systems and decentralized exchanges.

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<sup>2</sup> To read more about the tragedy of the commons, check out the wikipedia article:  
[https://en.wikipedia.org/wiki/Tragedy\\_of\\_the\\_commons#:~:text=The%20tragedy%20of%20the%20commons,resource%20through%20their%20collective%20action](https://en.wikipedia.org/wiki/Tragedy_of_the_commons#:~:text=The%20tragedy%20of%20the%20commons,resource%20through%20their%20collective%20action).

<sup>3</sup> This only applies for carbon credits from high quality governance systems, such as CDM, Verra, Gold Standard, Climate Action Reserve.

<sup>4</sup> If the carbon credit is retired by an entity that seeks climate neutrality, this entity is thus reducing the cost of offsetting its carbon footprint by this social value (expressed in financial terms via the value of an M+ token as a means of exchange).

<sup>5</sup> This means that the circulating supply of M+C within a net zero pledging community (we could also call it “net zero economy”) could also be used to track the level of net zero pledge fulfillment in that community.

**Distribution: A 10% fee is imposed on M+C token issuance, which means that the entity that retires 100 carbon credits receives 90 and 10 are transferred to the M+ Community Fund to finance the growth of the M+C community.**

For example, an entity has made a net zero pledge and purchased carbon credits to fulfill its net-zero pledge. It then retires these carbon credits, and receives 90% of the issuance from where they enter into circulation.

A net zero pledging entity can join a community/collective of entities (for example a city, a membership based organisation, an industry, ...) that have made a collective net zero pledge (either as a collective or as the aggregate of the individual net zero pledges of its members) and can use its combined community-tagged M+C holdings as a means of transfer of value (monetary function) between members of the collective (=everyone who as an M+C Digital wallet), to reward positive climate actions of members and non-members (like a reward currency “green frequent flyer mile”, thus reducing their collective carbon footprint), to finance community projects (to grow/strengthen their own community), or the projects of other communities (incl. seed-funding new communities).

**M+C enter the balance sheet of economic entities and are part of that entity's accumulated private wealth while representing a social capital asset.**

Between 2020 and 2050, the world needs to reduce 600 Gigatons of CO<sub>2</sub> emissions to become net zero. If this reduction was achieved and converted into M+C at an average value of 8 USD/t, M+C would have a total monetary value of 4,800 bn USD. Global wealth today is 360,000 bn USD. M+C would thus represent 1.3% of global wealth and will be the asset that will have made the largest contribution to protecting that wealth from the otherwise unavoidable consequences of climate change.

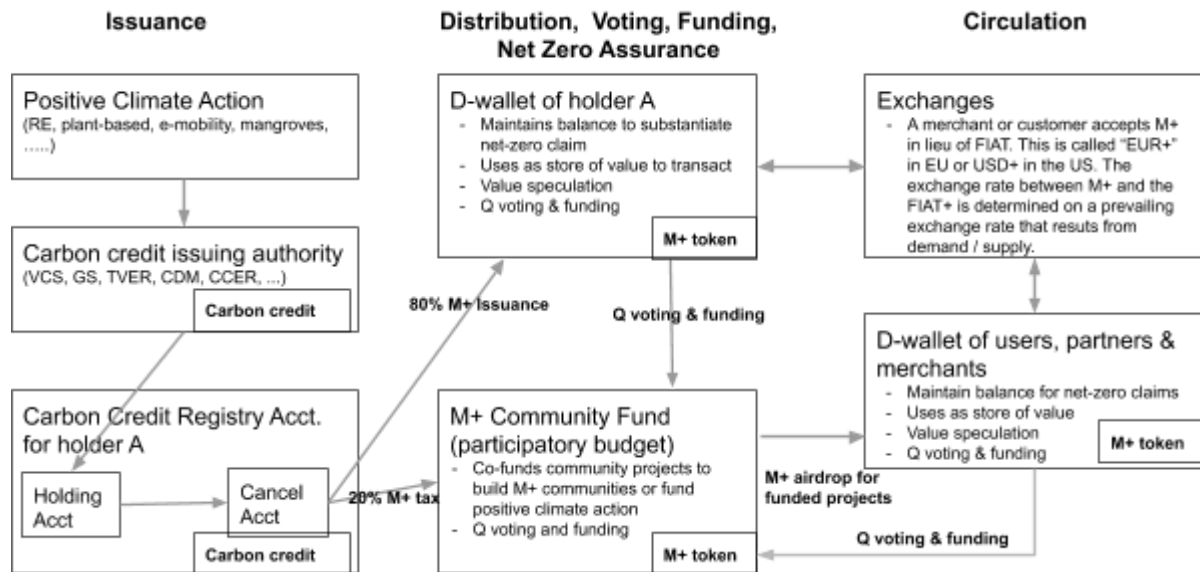
As an M+C token has already surrendered its potential value of contributing to a compliance scheme and its value of contributing to a net zero pledge, its residual value represents its social goods value, in the form of a homogenous, global carbon price.

**The M+C issuance tax (10%) is transferred to the M+C Community Fund. It cofunds M+C community projects using a Q voting and funding process, under the direction and control of M+C community members.**

The governance concept of the M+C Community Fund is based on the principles of the [RadicalxChange](#) (RxC) community and explained in more detail below. The economic and political theory of the RxC community facilitates, among other things, the democratic and inclusive decision-making and management of public goods.

### **3. Basic Design: M+C Issuance, Distribution & Circulation**

The table shows the basic functions & flow for M+C.



## Issuance process

A climate action is implemented, registered with an eligible carbon standard and originates carbon credits that are issued into the holding account of the project developer. From there, the carbon credit might be transferred multiple times until it arrives in the holding account of a buyer who wants to use it to contribute his/her own net zero or climate neutral claim. To execute this claim, the carbon credit is retired through transfer into a retirement account.

## Distribution of M+C (after issuance)

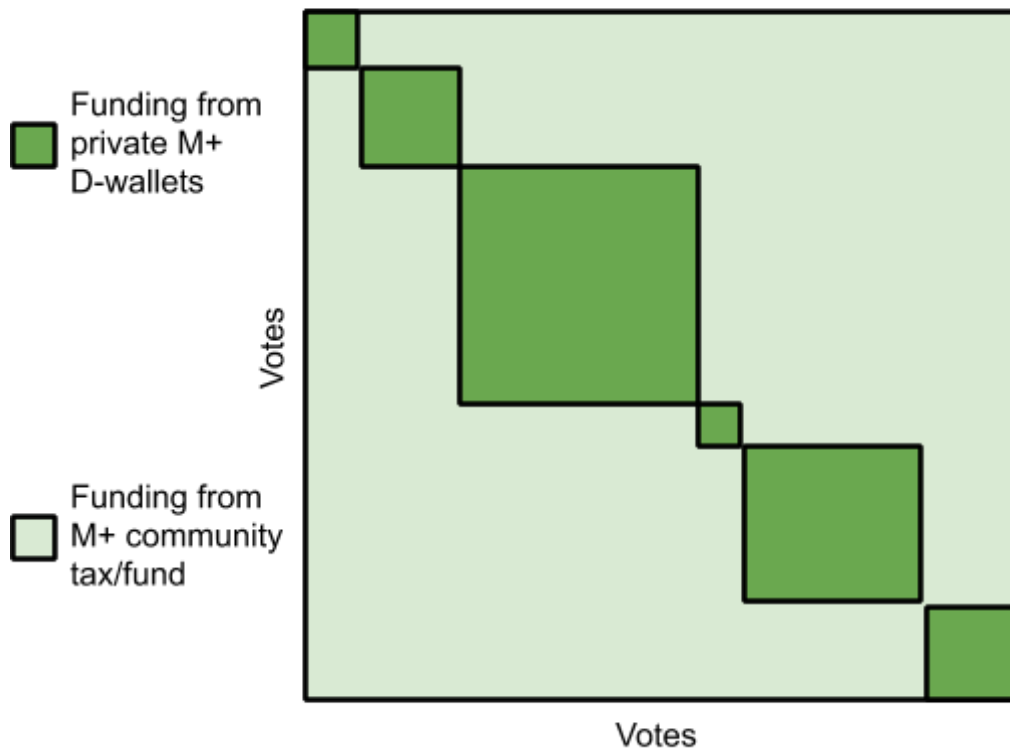
The retirement event triggers the issuance of the corresponding quantity of M+C tokens which are then transferred as follow:

- 10% of the issued quantity are automatically transferred into the M+ Community Fund [there might a case for increasing/decreasing the "tax" over time to drive value creation], and
- 90% are assigned and can be transferred to the carbon credit cancelling entity [on their request / automatically]. This requires that this entity registers a private digital wallet (D-wallet) to their cancellation account with the carbon credit issuing authority.

## Quadratic Voting and Funding

M+C tokens are the main instrument to organize the M+C community in relation to a) voting on projects and funding the development of the M+C user community (using the principles of quadratic voting & funding), and b) funding positive climate action.

## M+ Community Project & Proposed Budget



According to the quadratic voting and funding concepts developed in this [paper](#) by Buterin/Hitzig/Weyl (using principles from the RadicalxChange community), the “tax” collected into the M+ Community Fund would be redistributed to projects proposed by the M+C community that receive the most quadratic votes and co-funding.

Such projects are likely to take place within a net zero pledge community, which means that the M+C that were used for community voting/funding still contribute to the collective net zero pledge of that community.

### Using M+C to drive climate action inside a community

An entity might choose to join an M+C community that seeks to achieve their respective NZ pledge together. Such entity would then use its M+C tokens to incentivize positive climate action, creating a motive to circulate M+C (vs hoarding), thus creating a productive use case.

### Circulation: Using M+C as store and medium of transfer of value (money)

M+C tokens will have a dynamic exchange rate against major FIAT. It is our vision that an increasing number of users will express their participation in an M+C community by accepting M+C as a means of payment and by quoting prices for the products and services they sell by using the “+” sign, i.e. “Cappuccino: 3.49 EUR+” or “We accept EUR+”. Such a transaction would be executed as follows: the D-payment application of the consumer and merchant determine how many M+C need to be transferred to pay the price in EUR and the corresponding quantity of M+C is transferred to make payment.

However, a user could also use M+C to pay a non-participating merchant as follows: the D-payment application of the consumer determines how many M+C need to be sold to pay the price, the transaction is approved and executed and the corresponding EUR amount is

transferred to the D-payment app of the merchant. Considering that an exchange fee applies, the number of M+C to be transferred is higher (to pay the price).

Users that are motivated to drive the M+C community would therefore seek out merchants who accept EUR+ (or USD+ or GBP+ or THB+, ...).

*Net zero pledge makers* can consider to use M+C as a means of payment for their accounts receivable (products, services) and accounts payable (payroll, bonus, suppliers) to a) encourage consumers / staff / suppliers to join the M+C community, and b) acquire additional M+C to meet their net zero pledge.

*Individuals* can open an M+ D-Wallet as an attractive way to make and manage a personal net zero pledge, as individuals, members of an organization (employer, club, school..) or a community (city, country, ...).

*Merchants* can strengthen the liquidity in between consumers and net zero pledge makers, use M+C to enter into their own net zero pledges or drive traffic to their store.

*Liquidity providers* are needed to provide M+C to FIAT exchange opportunities and supply additional M+C liquidity. Liquidity providers can be financial organizations, carbon project originators, exchanges or the trading desk of net zero pledge entities.

#### **4. Why to Purchase, Hold or Sell M+C tokens (use M+C as a means of payment and store of value)**

- M+C creates connections and economic connections between entities that are members of the NZ/CN pledging community. By providing M+C denominated discounts against payment in FIAT currency, members of this community advantage transactions with partners that have made net zero/climate neutral pledges.
- Such discounts could be a representation of the shadow carbon price of that transaction. Example: a consumer eats a veggie burger that reduces GHG emissions by 6kg and costs 2 EUR. At a shadow carbon price of 40 EUR/ton CO<sub>2</sub> (which is a low estimate of the social cost of CO<sub>2</sub>), this consumer deserves a discount of 0.25 EUR (6 kg \* 40 EUR/t avoided CO<sub>2</sub>) paid in M+C (which means the consumer is still paying 2 EUR but get 0.25 M+C transfer to his/her digital wallet).
- Alternatively, a vendor of a veggie burger could also accept M+C as a means of payment (and integrated discount) so that the burger, if paid for in M+C costs 1.75 EUR+.
- A consumer thus either pays 2 EUR and gets 0.25 M+C as a reward or pays 1.75 EUR+. Or in other words, for every 7 veggie burgers, a consumer gets one for free.

As the world decarbonizes, it will get increasingly difficult to originate new carbon credits (and create additional M+C tokens) (this is equivalent to increasing the difficulty of mining bitcoin). This means that the total supply of M+C is limited and can control inflationary tendencies (in the future).

As participation in the NZ pledge economy and the number of M+C use cases increases (by being accepted as means of payment), demand for M+C will increase.

## **5. Launch of M+C**

### **Initial Critical Mass**

Users of the Verra Carbon Standard have already cancelled/retired 277 mil VCU and the Gold Standard has retired 70 mil GSVER (total 347 mil of the total 600.000 mil to achieve net zero world by 2050 = 0.06%).

This quantity can already be issued as M+C to fuel the growth of the M+C community. 80-90% of the total quantity can be transferred to the canceling entities, which represent the entirety of the active user base and includes numerous consumer facing commercial entities, NGO and even governments (by my own estimate, there are about 5,000 active carbon credit account holders with a combined workforce of > 10 mil persons (relevant if such entities use M+C to drive employee participation in positive climate action and who regularly transact to > 100 mil customers (relevant if such entities use M+C to engage customers in positive climate action). We need to assess the need for cooperation by the Standards to make the transfers to these entities. 10-20% can be directly issued to the M+C Community Fund.

This means that 35 to 70 mil M+C tokens could be available right away to grow M+C.

## **6. M+C Community**

7,000 non-state entities have already made net zero pledges, amounting to a combined emission reduction target of about 27 Gigatons (targets / data to be confirmed). This is the addressable market/community for M+C. This community includes many of the world's leading cities (C40 initiative) and companies (RE 100, EV 100, ....). These entities, and the network of their diverse stakeholders will be the seeds for M+C communities around the world.

## **7. The M+C Developer Community + Governance**

The M+C developer community shall provide the tools & platforms that allow everyone to participate in the M+C community. The M+ Community Fund shall provide the incentives (through granting and airdropping of M+C) to build applications and use cases around M+C to grow the community.

The usability of tools shall be so simple and intuitive as to lower joining barriers as much as possible and the incentives provided as direct and tangible as possible to maximize virality and uptake.

Governance shall be based on best DAO practices and use quadratic voting and funding.



## 8. Annexes

### Background

80% of climate change is caused by the non-sustainable consumption of rich people (here: representing 10% of the global population).<sup>6</sup>

While rich people have large carbon footprints from their non-sustainable consumption, their real leverage to reduce GHG emission reductions is not from offsetting their carbon footprint (becoming net zero) but from a) allocating their wealth into financial assets that contribute to climate positive action<sup>7</sup>, and b) exercising their influence over related decision-making within their sphere of influence (as shareholders, executives, participants in the political process (lobbyists, party members, ...)).

The voluntary carbon market provides the infrastructure to allow the offsetting of an individual's or entity's carbon footprint through the purchase and retirement of a carbon credit.<sup>8</sup>

However, there is currently no liquid financial asset allowing an individual or entity to hold a share of their wealth in a climate positive way nor a direct incentive/reward to exercise their influence in a "pro-climate" way.

M+C could fill that gap:

- a) M+C tokens are a liquid financial asset (with liquidity comparable to a currency) that is backed by positive climate action (= a retired carbon credit) and can be exchanged between everyone (global) as a liquid means of exchange and store of (positive) financial value, and
- b) M+C introduces a governance system to direct taxes generated within the M+C global financial system into positive climate action.

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<sup>6</sup> They are concentrated in the US and Europe but exist around the globe. In climate policy terms, we talk about rich and poor countries: this is a fallacy. To drive real change, we need to recognize that the rich (and influential) in so called poor countries not only have very large carbon footprints but that it is they who have the influence to determine if and how their country adopts low carbon transformation.

<sup>7</sup> For example, a rich person might have a carbon footprint of 100 tCO<sub>2</sub> per year. According to UBS, a top 10% rich person also has a net worth of 93.000 USD (going up exponentially for the top 1% (871.000 USD) and 0.1%). [https://en.wikipedia.org/wiki/Distribution\\_of\\_wealth](https://en.wikipedia.org/wiki/Distribution_of_wealth)

<sup>8</sup>

<https://www.southpole.com/sustainability-solutions/become-climate-neutral#:~:text=It%20combines%20an%20organisation's%20need,zero%22%20is%20becoming%20increasingly%20popular.>

## Scaling-up the Use of M+C

M+ will be developed in the context of a number of pilot applications to ensure that its design and toolbox are universally applicable across various use cases. The use cases include M+ designs that are backed by different forms of social capital.

### General Observations

Use case development should recognize who the initial holders of the M+C tokens will be: companies that have had a net zero pledge in place for a while and have retired large amounts of carbon credits on the Verra registry. Candidates include:

- UK Net Zero pledge (and forward looking companies in the UK)
- Amazon Climate Pledge <https://www.theclimatepledge.com/>
- Members of the Science Based Targets Initiative (colab between CDP, WRI, WWF, UNGC, We Mean Business Coalition)
- Boston Consulting Group
- We Mean Business Coalition (1300 companies): <https://www.wemeanbusinesscoalition.org/companies/>
- C40 (<https://www.c40.org/cities>)

### Candidate Use Cases

**Camden Pilot:** The London Borough of Camden has been at the forefront of climate action: it was one of the very first jurisdictions in the world to announce a net-zero emissions pledge, a pioneer in establishing a Citizen's Assembly for Climate Action, and it has just recently launched an ambitious Five Year [Climate Action Plan](#) aligned with its net-zero goal. At the heart of this plan is a commitment to engaging its citizens in advancing climate action. Put to work in the context of the community, a Camden-tagged M+C - call it the 'Camden Coin' - can provide the financial incentives and democratic participatory mechanism answering the commitment to community engagement as part of the Climate Action Plan.

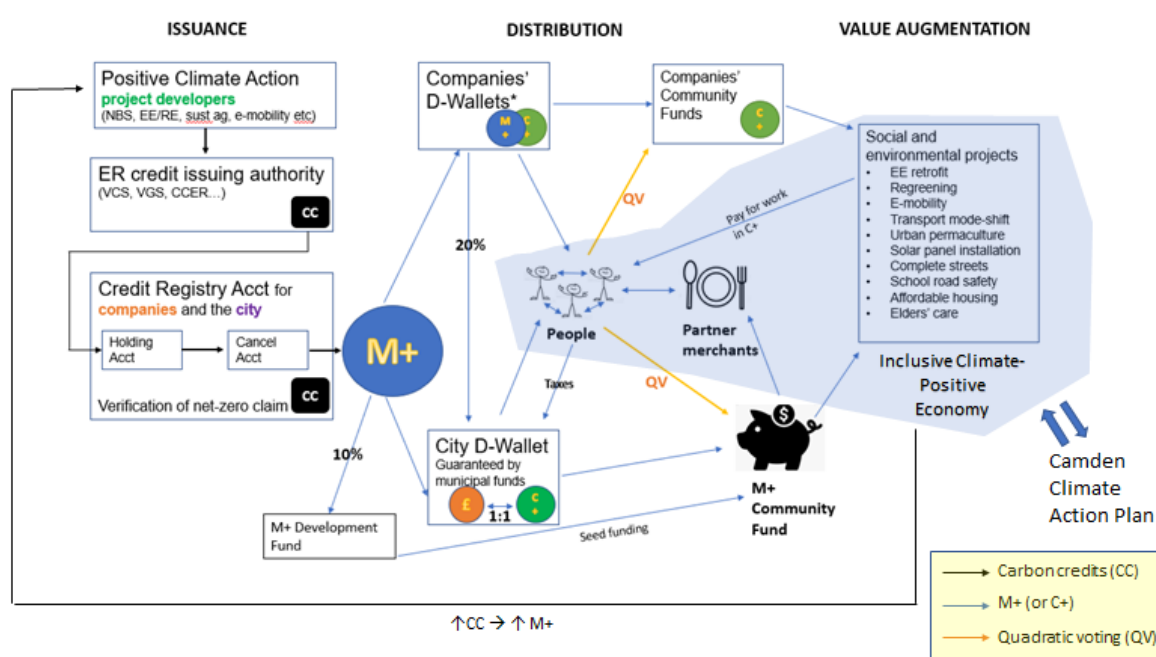
Camden Coins can be issued on a voluntary basis by large businesses located in Camden that have set themselves a net-zero emissions goal. To the extent Camden Borough is also purchasing and retiring carbon credits as part of their net-zero commitment, these can also be converted into M+C based Camden Coins. Specific arrangements will need to be worked out between Camden Borough, the participating companies, and the M+ Development Board, governing the level of corporate contributions in to Camden Community Fund (via the Camden D-Wallet), and any tax benefits or incentives that might be available to participating companies (e.g. one can imagine a scenario in which Camden Coins on a companies' books are deductible to a certain level from local tax obligations).

Camden Coins get distributed into the population of Camden residents through three main channels: via participating companies, as a benefit to their employees; via the Camden Community Climate Action Fund, through an airdrop or allocations targeted at certain groups (e.g. students, parents, unemployed); via market exchanges, in the form of a reward for a climate positive purchase from a participating merchant.

For participating companies, the M+ or Camden Coins can be used as a tool for employee reward and workforce engagement: a gift of Camden Coins could become an attractive climate-positive perk in the benefits packages.

For participating merchants, participating in the Camden Coin community gives the the opportunity to build a new loyal client base, as well as giving them an effective lever for social responsibility and climate action.

For the City - Camden in this case - the community-tagged coin is a means to lubricate and grow the local net-zero economy whilst addressing other stubborn challenges, e.g. unequal access to urban services, unemployment, homelessness and a large stock of inefficient buildings and homes.



**Making Taiwan Net Zero:** we are working with partners in Taiwan to create a localized version of M+C to make Taiwan net zero.

**Paris Pilot with EUR+:** The M+C token for Paris focuses on creating more sustainable food habits and greening the city while increasing youth employment.

**Bangkok Pilot/Social Coin:** In Thailand, we seek to create a localized token "Social Coin" to support the ailing tourism industry and drive investment into social projects via the socialgiver.com platform.

## 9. About Us

Our collaboration started during COVID 19 as a number of not connected conversations around building - back - better (everyone seemed to reminisce around that topic) and relating to ideas that had been in the back of our heads for quite a while. At some point, we connected the dots and the conversations and this became the result, an inspiration that was borne from the diversity of backgrounds of this group.

## Team

(in alphabetical order)

Aurel von Breitenstein (<https://www.linkedin.com/in/aurel/>)

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Sylvain Ferriere (<https://www.linkedin.com/in/sylvain-franc-de-ferri%C3%A8re-2249195b/>)

I've spent most of my professional life tackling inequality from different angles, working for and setting up NGOs, working for and financing social enterprises, and consulting corporates on these topics. Through discussions since the beginning of this year with this group, my thinking has moved towards the belief that individuals and decentralized local communities will be drivers of radical social and environmental change. And we came to the conclusion that one of the key enablers for this change to happen is by changing the underlying value of currencies !

Leo Horn (<https://www.linkedin.com/in/leohorn/>)

Isabelle Hoyaux (<https://www.linkedin.com/in/isabelle-hoyaux/>)

Ingo Puhl (<https://www.linkedin.com/in/ipuhl/>)

I have been chewing on the M+ concept on and off for a while (5 years) which has been inspired by my perceived limitation of the current voluntary carbon market.

Arch Wongchindawest (<https://www.linkedin.com/in/archw/>)