A Blockchain-based solution to improve effectiveness within the metal packaging industry.

Incentivizing by raising awareness or raising awareness by incentivizing.

Both formulas work!

"By raising awareness, we can change the world!"
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>3</td>
</tr>
<tr>
<td>MPT and EOS</td>
<td>6</td>
</tr>
<tr>
<td>Side Chains</td>
<td>7</td>
</tr>
<tr>
<td>Token Distribution</td>
<td>8</td>
</tr>
<tr>
<td>Token Allocation</td>
<td>9</td>
</tr>
<tr>
<td>Current situation</td>
<td>10</td>
</tr>
<tr>
<td>Steel/Aluminium for Packaging Facts</td>
<td>12</td>
</tr>
<tr>
<td>Recycling</td>
<td>13</td>
</tr>
<tr>
<td>The Metal Packaging Industry</td>
<td>14</td>
</tr>
<tr>
<td>End Consumers</td>
<td>14</td>
</tr>
<tr>
<td>MPT Mobile App</td>
<td>15</td>
</tr>
<tr>
<td>MPT Economic Model</td>
<td>16</td>
</tr>
<tr>
<td>Competitive Charging Start-up Model</td>
<td>17</td>
</tr>
<tr>
<td>Aligned Interest</td>
<td>18</td>
</tr>
<tr>
<td>Creating a Behavioural Change</td>
<td>18</td>
</tr>
<tr>
<td>Why Do We Need MPT Tokens?</td>
<td>19</td>
</tr>
<tr>
<td>“Climbing the Ladder”</td>
<td>19</td>
</tr>
<tr>
<td>MPT Currency Model</td>
<td>20</td>
</tr>
<tr>
<td>Commissions</td>
<td>21</td>
</tr>
<tr>
<td>Secondary/Declassified Material Market</td>
<td>22</td>
</tr>
<tr>
<td>Scrap Metal Recovery Program</td>
<td>23</td>
</tr>
<tr>
<td>MPT’s Metal Scrap Purchase Program</td>
<td>24</td>
</tr>
<tr>
<td>Geographical Material Purchasing Associations</td>
<td>25</td>
</tr>
<tr>
<td>Summary</td>
<td>26</td>
</tr>
<tr>
<td>Key MPT Goal</td>
<td>26</td>
</tr>
<tr>
<td>MPT Team</td>
<td>27</td>
</tr>
<tr>
<td>Roadmap</td>
<td>32</td>
</tr>
<tr>
<td>Bibliography</td>
<td>33</td>
</tr>
<tr>
<td>Join Us</td>
<td>34</td>
</tr>
</tbody>
</table>
Abstract

Mass-consumption is seriously harming our planet! Deep down we all know this to be a verified fact. The most important question this statement provokes is: “What are we willing to do to break this pattern, or at least slow it down?” This whitepaper will provide a watertight solution to one of the major problems that our beloved planet earth is currently coping with. It is, and will be, up to all of us to contribute to a better, healthier planet!

Food, water, cosmetics, paint and many more products commonly used in daily life, will always require packaging. Preserving intrinsic characteristics of products should be the main criterion when choosing their packaging solution. Packed food needs to withstand temperature differences, while maintaining their intrinsic nutritional properties.

If this criterion had always been considered sacrosanct, this project would have been futile. However, on the other hand, our planet would have had a far brighter future.

The main problem arises with economical interest. Huge economical lobbies of certain sectors play a very important role. We will not discredit these lobbies, just merely identify them.

There are many possible packaging solutions for any specific type of product. We all know them and are capable of identifying them. All of us use or buy all of them, simply due to the fact that we want the product inside. Essentially, in terms of the material used for packaging, there are four types of packaging solutions: metal, glass, paper and plastic. These materials cover the vast majority of the world's packaging solutions.

This is where it becomes interesting. We chose this order (metal, glass, paper, plastic) because of the grade of damage that the respective packaging material causes today's world. Recycling is the key factor here. Metal is 100% recyclable, while all the others (except for glass) are not.

While we all basically know this, as this ‘we’ refers to the world’s population, ‘we’ should start to do something about this. At the time of writing, we believe that all readers are very familiar with the brutal images of the predominately plastic contamination that our planet is suffering from. MPT’s goal is to stimulate the world’s metal packaging industry.

By doing that, we are convinced that less-planet-healthy materials used in packaging will decrease in volume.

Absolutely every product that can be packed in metal containers, should be packed in metal containers!”
This paragraph will provide an overview of what MPT aims to achieve (targets) and why MPT will appreciate in time. All mentioned targets will be explained in detail afterwards in this Whitepaper:

1. MPT will reward individual users with MPT tokens, when returning empty metal cans to MPT deposit points.

2. MPT will create a decentralized currency which will be useable to pay for all products packed in metal containers.

3. MPT will be useable to pay for all products/services, that contribute to the metal packaging industry.

4. MPT will be the new standard to be used as payment to commercial agents (within the metal packaging industry), instead of commissions (fees) in fiat currencies.

5. MPT will be used horizontally and vertically through the whole metal packaging supply chain.

6. MPT will reduce the magnitude of secondary/declassified material trading.

7. MPT will strive to have steel producers back MPT's token value by a (small) percentage of their production capacity.
Token Appreciation

The basic concept is that token value will appreciate through usage. MPT will create the necessary usage by:

1. Developing the MPT mobile app
2. Apply for and receive governmental subsidies.
3. Securing more and more partnerships.
4. Securing strategic alliances with governmental institutions and metal packaging associations.
5. Creating MPT deposit points with received subsidies.
6. Starting an extensive marketing/awareness campaign.
7. Securing MPT's usage in all layers of the supply chain.
8. MPT project will generate more volume in metal packed products.
9. Steel producers, can makers, can fillers, retail companies and end consumers will all benefit from MPT.
10. Well-known multinationals will benefit from partnering with MPT, in reputation and in turn-over.
11. Striving to become a metal-backed token by steel producers.
MPT will create 1.800.000.000 MPT tokens on the EOS blockchain. Our team opted for the EOS blockchain, as we believe that today EOS is the only stable blockchain that can ensure the required scalability for MPT to function and be adopted worldwide. At the moment of writing, the needed scalability can only be found on EOS. Of course, when we started, we had Ethereum in mind, but their “sharding” will simply take too much time. MPT cannot afford to wait until 2020 to launch. By studying MPT’s Roadmap, readers will agree that MPT needs scalability before 2020.

Besides Ethereum and EOS, MPT carefully studied Zilliqa (ZIL) and IOS Token (IOST) as potential blockchains to launch on. ZIL’s sharding will reach us before Ethereum’s, but we would still have to delay the project and wait until ZIL’s main net proves to be stable. IOST has a very interesting consensus mechanism (Proof of Believability). They also promise high throughput (TPS). The same applies as with ZIL. We would have to delay at least 6 months to see if their blockchain proves to be stable. After extensive research, MPT concludes that, at the moment of writing, “Delegated Proof of Stake” (DPoS), the EOS consensus mechanism, is a very reliable model.

Delegated Proof of Stake (DPoS) has already proven to be a very robust protocol for the creation of new blocks. This consensus algorithm consists of a cooperative, rather than competitive, process for block creation. In our opinion, DPoS will prevent (more than other algorithms) the creation of blockchain forks. Also, “double-production” and fragmentation of the network are reduced by DPoS, as minority forks are invalidated by the inherent properties of the DPoS algorithm. The continuous voting process for EOS Block Producers will ensure that each and every one of them acts adequately and productively, otherwise they will be voted out.

Of course, MPT had its thoughts on the “decentralization grade” of the EOS governance model. The next paragraph (“Token Distribution”) will explain in detail why and how MPT has decided to bypass anything that resembles “threatening centralization”. Furthermore, various EOS block producers have been very helpful “out rolling” this project, for which the MPT team is very grateful.
Side Chains

A side chain is usually defined and created for one specific use case. There can be multiple side chains where different tasks are distributed accordingly for improving the efficiency of processing. MPT’s usage in real world applications will benefit from this opportunity that implicitly lies within the EOS cooperative consensus algorithm (DPoS). A fixed number of voters validates the value of the data. MPT is absolutely convinced that this is exactly how blockchain validation should work.

Although side chains are usually created for one specific use case, MPT’s perspective differs from this general opinion. In order for the MPT project to succeed to the satisfaction of its founders and the community, MPT will, if necessary, create “geographical side chains”, with its only purpose would be efficiency and therefore scalability.

EOS blockchain will attract many great projects in the near future, which, at some point in time, will require the needed scalability to process block validations. MPT’s implementation will not depend on potential congestions of the blockchain. Therefore, the MPT team will welcome professional teams that are willing to create a side chain. The main criterion will be “geographical location”, but many other criterions will be taken into account. Current metal packaging recycling rates at specific geographical locations will also play an important role. Governmental partnerships within certain regions in the world will be of key essence to make this project work in the way that it is designed to work.
Token Distribution

50% of the MPT tokens will be airdropped on a 1:1 ratio to EOS holders. However, MPT strives to have as much decentralization as possible, as well as a distributed governance model. Therefore, MPT will cap whole accounts by airdropping a maximum amount of 500,000 MPT tokens per EOS account. However, exchanges that exceed the capping amount, will be eligible to receive the MPT airdrop if they support the MPT airdrop and agree to transfer the airdropped tokens to their customers. The exceeding amount of MPT will be allocated in a two-way split: 10% (of maximum supply) will be reserved for purchasing metal scrap (will be explained in detail later in this Whitepaper) and the remaining amount will be offered in a community sale. This remaining amount of MPT tokens will be offered to potential buyers through our website, during a short period: 4 weeks. Token price (in EOS) for this 4-week period is yet to be determined. All unsold tokens will be immediately burned after this period. MPT has taken a “test-snapshot” in October 2018. The results of this “test-snapshot” are as follows:

Due to the capping at maximum 500,000 tokens per account, when airdropping 900,000,000 tokens, a surplus token amount of approximately 594,000,000 tokens will be created. As mentioned, 180,000,000 tokens will be reserved for purchasing metal scrap. Without taking into account the “exchange- airdrop support-factor”, 414,000,000 tokens (23% of maximum supply) would be offered in the community sale. This surplus amount will be offered to the community against a pre-determined price (in EOS) during a fixed period of 4 weeks. The MPT team will organize this “community-sale”, taking into account the following rules of participation:

A: The pre-determined price (in EOS) will be guaranteed as a buy-back price in the event that participants “hold” the tokens for the complete period of 12 months. Only by holding, participants would not lose the right of selling against buying price. This mechanism essentially implies that the risk of depreciation of token value will be borne by the MPT team. On the other hand, if participants choose to sell or trade these tokens (within 12 months after date of community-sale), above mentioned right would be automatically forfeited.

B: All unsold tokens will be immediately burned after the community-sale.
This “airdrop-account capping-token sale-token burn” distribution model has never been done before. MPT believes that this token distribution model is the best option for MPT, but also for a variety of other projects. MPT takes pride in being the first one! The other 50% (900.000.000) of MPT tokens will be divided as follows: 20% (360.000.000) will be reserved for the team, but they will be 100% locked for the period of one year from airdrop date. The other 30% (540.000.000) will be reserved for partnerships, marketing/exposure, personal hiring, etc.

The MPT is an EOS token with a supply of 1.8 Billion units that will be allocated according to the following split:

- **50%**
  - **AIRDROP**

- **34%**
  - **AIRDROP CAP**

- **20%**
  - **SCRAP PURCHASE**

- **30%**
  - **PARTNERSHIPS, MARKETING, HIRING**

- **20%**
  - **TEAM, (WITH LOCKUP)**

- **46%**
  - **COMMUNITY SALE**

**UNSOLD TOKENS WILL BE BURNED**
Essentially, all packaged products worldwide are packed in 5 different materials:

1. **Paper/Paperboard/Fiberboard:**
   Paperboard and fibreboard are used in both primary and secondary packaging by companies throughout the world. Paper is used to make a large variety of thinner packaging products, examples include: labels, kraftpaper, paper bags, and butcher paper. Paperboard is thicker and more durable than standard paper material. Paperboard is often used for: milk and juice cartons, cereal boxes, frozen food boxes and candy boxes. Paperboard offers slightly more product protection than simple paper material, but less than fibreboard. Fibreboard, or fluted fibreboard, is used in the manufacturing of corrugated boxes. Fluted fibreboard creates ridges between two flat fibreboards creating more strength and crush resistance. According to the American Forrest and Paper Association, more than 95% of all products in the United States are shipped in secondary packaging made from fluted fibreboard.

2. **HDPE/PET/Rigid Packaging:**
   These are plastic derivatives, more specifically derived from polyethylene, high-density polyethylene and polyethylene terephthalate. They are harder and more rigid plastics than other plastics. Some of the most common uses for HDPE and PET are bottles and jugs. Most water and soda bottles are made from PET. Jugs for cooking oil, milk cartons and almost all bottle caps are made from HDPE which is harder and even more rigid than PET.

3. **LAP/LDPE/Flexible Packaging:**
   Low-density polyethylene and linear low-density polyethylene are softer and more flexible plastics. Low-density polyethylene is used to make a variety of bags, films and flexible tubing for packaging. LDPE bags and tubing are often referred to as polybags and tubings. They range in thickness and are used to package: food items, dog treats, auto parts, tools and more. Linear low-density is thinner than LDPE and is commonly used in the packaging industry for stretch-wrapping pallets in the cases of palletized-packed products.

4. **Glass/Jars:**
   Although the plastic polyethylene market has consumed some market share of the glass packaging market, the glass packaging market still holds a significant market share within the packaging industry. Alcoholic, but also non-alcoholic drinks make up a large portion of the glass packaging market. Other industries that use glass packaging are cosmetics, food items, and even home decor and candles. Contrary to the first three before-mentioned materials, glass is 100% recyclable.
5. **Metal Packaging (steel and aluminium):**

Metal Packaging, the protagonist of this Whitepaper, is used for a variety of applications throughout the world. Food, cosmetics, medical, beverages, paint and solvents, form the largest product categories where metal packaging is used. Basically, the two metal categories used in metal packaging are tinplate and aluminium. Electrolytic tinplate (ETP) is steel with tin added to it in order to prevent oxidation or corrosion. ETP is magnetic. Aluminium, commonly known for beverage cans, is a much softer and lighter metal. Even though the raw material aluminium is more expensive than raw tinplate, nowadays it is widely used for beverage cans throughout the world. Aluminium is easier to stretch, more flexible or elastic even. Since beverage cans are “two-piece” cans (body + lid), the bodies are extruded in press moulds. The characteristics of aluminium make it a lot easier to extrude. Two-piece cans also exist in cosmetics and in food.

Metals are natural elements that maintain their physical properties forever. Once metals enter the material-to-material loop, in which it is recycled again and again, it will always be available for future generations. This means that metal is a permanent material. The inherent properties of metal do not change during use and despite repeated recycling into new products. Its recycling does not necessarily require the addition of primary material or additives to enable the basic material functions and properties.
Steel/Aluminium for Packaging Facts

- Steel is a “mono-material”, and therefore easy to recycle.
- Steel is a permanent material that can be infinitely recycled without any loss of quality.
- Steel/Aluminium packaging is 100% recyclable.
- Using recycled steel/aluminium to make new steel saves energy and resources.
- High production temperatures ensure that recycled material is contamination-free.
- 100% of all recycled steel/aluminium packaging material is reused to make new steel/aluminium.
- Over 70% of steel packaging is recycled in Europe. Global average is much lower. Aluminium recycling percentages are significantly lower because it is a non-magnetic metal.
- Steel is magnetic, therefore easy to extract from any waste stream by using magnets. Aluminium is not magnetic, therefore much more difficult to extract.
- Increased recycling means reduced landfill.
- The steel/aluminium making process needs scrap metal, so every steel/aluminium plant is also a recycling plant.
- A wide range of dispensing options can be used to suit the function of the product.
- From food to chemical products, steel/aluminium packaging offers unrivalled efficiency, safety and performance.
- Steel/aluminium are impact-resistant, puncture-resistant and unbreakable in the supply chain.
- Steel/aluminium packaging is impermeable and protects contents from light, oxygen, gases, fragrances, flavourings, oils, fats and fluids.
- No additional preservatives are required to protect canned food stored at ambient temperature.
- All bacteria are eliminated by temperature during the filling process.
- Fruit and vegetables canned within hours of harvesting retain their nutrients throughout their shelf life.
- Portion-sized packaging limits product waste.
- Food packaged in steel/aluminium requires no refrigeration during transport and storage.
While global resources are limited, society’s demands are continuously increasing. Mass-consumption, as stated before, is therefore seriously damaging our planet. We all owe it to the planet to increase effectiveness and manage our resources in the best possible manner. This should be our top priority.

Taken into account metal properties and being a “permanent material”, we will have to strive to a situation where absolutely no metal packaging should go to landfill. This Whitepaper will explain in detail how we can achieve this goal.

Recycling 1 tonne of scrap metal uses up to 95% less energy than making 1 tonne of metal from raw material.

Recycling 1 tonne of scrap metal saves up to 2 tonnes of raw material. So each metal can save twice its weight in raw material, when recycled.

Since the year 2000, the metal packaging industry has made constant progress in reducing CO2 emissions. Recycling 1 tonne of scrap metal reduces CO2 emissions by 95%, in comparison to making 1 tonne of metal from raw material.
The metal packaging supply chain essentially consists of 5 layers:

1. **Steel Producers**
2. **Can Makers**
3. **Can Fillers**
4. **Retail**
5. **End Consumers**

Steel producers like ArcelorMittal, Tata Steel or ThyssenKrupp are huge factory conglomerates that jointly produced 1.673 billion tonnes of steel in 2017. The automotive industry and the metal packaging industry are its most important customers. This Whitepaper will, of course, focus on the metal packaging industry.

Steel producers deliver tinplate or aluminium to can makers in coils or in cut-to-length sheets. Can makers print or lacquer the material, and their can making lines manufacture the cans required by the can fillers.

There are approximately 5000 can makers worldwide, ranging from medium/small family-owned companies, to large multinationals like: Crown Holdings, Silgan or Ardagh. Major can fillers are well-known companies, for example: Nestlé, Unilever and Kraft. The fourth layer consists of the large retailers that distribute the filled cans to supermarkets or more specialized stores.

### End Consumers

The fifth layer consists of all individuals that purchase the finished products. This layer, like any other industry, pays for the complete cycle. This group determines the demand, based on which all layers produce. MPT will start focussing on this layer. Not if, but when MPT succeeds in implementing its formula within the end consumer layer, MPT’s usage will climb the layer ladder, as will be described in detail in the following paragraphs.
As previously mentioned, MPT’s first target market will be the end consumers. MPT will reward end consumers that return empty metal packaging containers (after usage) to specific MPT deposits.

**How will this work?**

MPT’s two co-founders have extensive technical and commercial experience within the metal packaging industry. Along with our partnership (still under NDA), MPT will enable to print a unique “material-related” (tinplate/aluminium/TFS) and “weight-related” QR-code on all metal packaging containers. Each identical can (material-wise + weight-wise) will have an identical QR-code. Different cans (material/weight) will have a different QR-code. The QR-code represents a pre-fixed amount of MPT tokens that will be transferred to the receiver’s wallet, after depositing the cans at an MPT deposit point. Each MPT deposit point will also have a unique QR-code (location-related) embedded. This feature will facilitate the “recycling-location-statistics” enormously. MPT will know exactly what geographic locations are doing well, and what locations deserve more attention.

By scanning the cans at the MPT deposit scanner, the MPT deposit point printer will generate a receipt with another unique QR-code, representing the total amount of MPT related to the totality of the cans that just have been deposited. The MPT mobile app then scans this QR-code on the generated receipt, which will instantly transfer the MPT to the mobile wallet of the depositor. Individuals will be incentivized to sort, collect and deposit empty cans.

The MPT deposit machine will only open when an MPT QR-code is scanned. Internally, the machine will separate steel from aluminium by magnetism and will have an internal scrap compactor built in, facilitating the emptying by waste disposal services.

MPT has concluded several rounds of meetings with potential manufacturers of our future “can recycling machine”. The main result of these meetings is that the cost price for a MPT recycling machine prototype will be approximately USD 20.000,-. Needless to mention, with increasing volume, the manufacturing cost will result in drastically lower figures.
The cash-out mechanism at MPT deposit points will have to be constantly fed by the cash-in mechanism. This will be governed by MPT’s economic model of “competitive charging”.

Usually, the third layer (can fillers) determine the lithographic design that is printed on the can. Perhaps, a better denomination than “can fillers” would be “brand owners”, as sometimes large retail companies are the brand (design) owners. Therefore, it is this layer that will decide to (yes or no) participate in the MPT project. Can fillers own the designs and can instruct the can makers to print the needed QR-code onto the cans.

As previously mentioned, the MPT QR-codes will be material-related (aluminum or steel) and weight-related (kgs). A unique “can-filler/ brand-related” encryption will be also embedded in the QR-code. This feature will enable each can filler to “charge” the QR-code with an additional bonus amount of MPT in order to incentivize end consumers to actually return their empty metal cans to MPT deposit points.

The competitive aspect of this economic model implies that each can filler can determine the bonus amount of MPT themselves. This will result in that, for instance, Coca Cola will incentivize recycling more than Pepsi, or vice versa of course.
A huge marketing tool at very little cost!
MPT will secure partnerships with “brand owners” by literally handing out a start-up package of MPT tokens, when joining the project. Through our website, brand owners can apply for an “MPT charging start-up package”. The amount of MPT tokens handed out (free of charge) will directly relate to the amount of cans that will be submitted to the MPT program, as in the amount of cans that will have an MPT QR-code printed on them, in order to be recognized (and therefore recycled) at MPT deposit points.

In practice, MPT is convinced of the fact that mainly larger brand owners will join with a relatively small, (probably geographical) demarcated market portion. By following this route, after an “x” amount of time, brand owners can access their own recycling-rates, make future calculations and possibly expand their MPT market share.

As previously outlined, the first amount of MPT is free of charge for participant brand owners. Brand owners decide to what degree they want to incentivize their recycling-rates and how many cans they will submit to the MPT charging start-up model. After the start-up phase, brand owners must decide for themselves if they want to continue with the program and to what degree they wish to do so. If a brand owner already received a start-up package, in order to continue, they will need to purchase MPT on the market (exchanges).
Aligned Interest

The motives for brand owners to participate are obvious. In order to actually make a significant change, we all have to make an effort. Can filler brands will disclose to the public to what degree they participate, as end consumers will immediately know, when returning empty cans to MPT deposit points.

A second reason for brand owners to participate is, of course, that the metal packaging industry will grow, which directly translates into more turn-over. Recycling is necessary and recycling is hot! MPT strongly believes that can fillers will join the project. The degree in which they do so, is up to themselves.

A third and very important reason for brand owners to participate is the fact that, by doing so, they will have exact and immutable statistics on the recycling-rates of their sold cans. These numbers will, as explained, also have a geographical factor embedded. This acquired information can be of great value to them.

Value is created through usage! As more and more brand owners join the MPT ecosystem, token value will appreciate. By token value appreciation, the initial investment of brand owners will be reduced, or even turned into direct profit.

Creating a Behavioural Change

The amount of MPT deposit points and the practical speed in which they can be manufactured, installed and commissioned, is of key importance to the project. MPT is already in dialogue with certain (regional) governments, brand owners, can makers and other big players within the industry.

MPT team will formally apply for governmental subsidies, that, to certain extent, will be granted, given the projects’ objectives. All to be received governmental subsidies will only be used for the manufacturing, installation and commissioning of MPT deposit points. We need as many as possible and we absolutely need the community to be aware of this fact. We can only create a behavioural change in human beings with joined effort. MPT ignites the awareness, will incentivize it and will invest all possible resources in the project development. Still, MPT needs all of you as well! Together we will revolutionize the industry and create a healthier planet while doing so. The strength and commitment of the MPT community will play an essential role in the degree of success.
Why Do We Need MPT Tokens?

Besides the obvious reason that by holding MPT tokens we are actually helping the environment, and therefore the well-being of our planet, MPT tokens will be tradeable on (decentralized) exchanges. This means holders can trade them for EOS or other cryptocurrencies. Via this route, a cash-out in fiat currencies will, of course, also be possible.

Although MPT tokens can be traded or turned into cash on exchanges, we as the MPT team are firm believers that using the tokens will result in a far better outcome for all parties involved.

Our “Roadmap” will clearly outline what other functionalities are to be incorporated in the MPT mobile app.

“Climbing the Ladder”

In the paragraph “The Metal Packaging Industry” we have identified, and briefly described, the 5 layers of the Metal Packaging supply chain. MPT’s focus starts at the layer that is paying for everything: the fifth layer (End Consumers).

Fifth Layer:
Having described the five layers of the metal packaging industry, the rewarding of depositing empty cans occurs in the fifth layer (End Consumers). Not only will end consumers be rewarded for their good deed, they will also be able to actually spend their MPT tokens...

Fourth Layer:
MPT tokens will serve as a currency to purchase absolutely all products that are packed into metal containers.

Nowadays, each can possesses a bar-code. This bar-code reflects a lot of embedded factors, one of which is the price in fiat currencies at, for instance, supermarket check-outs. The retail layer (fourth layer) will be able to calculate, besides the current fiat currency value, an equivalent of the fiat currency value in MPT. The MPT mobile app will be able to scan this bar-code and instantly transfer the respective amount of MPT to receiver’s wallet (i.e. supermarket). MPT estimates that climbing to the fourth layer in a significant way must be possible within 2-3 years from airdrop date.

(cont.)
Third & Second Layers:
Climbing to the third layer (Can Fillers) and second layer (Can Makers) will not necessarily take place after climbing to the fourth layer. Actually, based on extensive conversations and meetings with future partners, MPT team expects that third and second layer will be reached before significant implementation within the fourth layer.

MPT usage in third and second layer consists of MPT being used as a currency to pay for all products and/or services that contribute to the metal packaging industry. Machines, outsourced technical services, food-grade coatings and even small percentages of employee salaries within third and second layers will be possible in MPT.

First Layer:
Although the success of MPT does not depend on the first layer (Steel Producers), MPT aims to have steel producers contribute to the project. This layer has, by far, the most resources and therefore the most influence on the chain. The first layer will be the most difficult “step” on the ladder for MPT to climb.

What does MPT want from Steel Producers?
Basically, as in every other economic model, the market will decide. MPT’s goal with regard to steel producers is relatively simple. On the other hand, steel producers themselves, individually or in a collective manner, can collaborate and contribute to the MPT project by backing the MPT token value with a small percentage of their production capacity. Of course, this will not happen overnight, but MPT is absolutely convinced that it can be achieved. In the event that this would actually occur, a very interesting change would be the result: At this point, MPT would become a “stable token (coin)”. Volatility would be drastically reduced, as MPT’s market capitalization would suddenly be backed by “metal”.

MPT Currency Model
Commissions

This paragraph starts by reminding our readers that plastic packaging solutions, in some cases, are preferred over metal packaging solutions. The only reason for this phenomenon is price difference. Plastic packaging solutions have a 20-35% price difference in their favour. At equal circumstances, absolutely every product (suitable to be packed in metal) that is now packed in plastic, would be packed in metal containers. This is of key importance!

The above mentioned brings us to the very delicate issue of “commissions”. Inter-layer and cross-layer commissions (fees) play a very important and interesting role within the industry. Metal packaging is not an exception when it comes to commissions. Commissions are paid to commercial agents after concluding a sale. The agents make an effort and they are paid after doing so.

The interesting part arises when one finds out that if we would add up all inter-layer and cross-layer commissions that are paid, one would end up with a result of between 30-50% of the final price of the finished product. Once this information sinks in, one might think that by eliminating these commissions, metal packaging solutions would be cheaper than plastic packaging solutions. Alas, it is not that simple.

In the metal packaging industry, which is an already relatively old and traditional industry, most commission-agreements have been in place and valid for decades. Although it might seem tempting to try to eliminate these old agreements, the vast majority of them have proven to be needed within the market. Even if MPT would attempt to eliminate them to make the chain more cost-effective, we simply wouldn't be able to.

Instead of eliminating, MPT wants to set a new trend, a new commission standard if you will. All inter-layer and cross-layer commissions should be paid out in MPT and not in fiat currencies. By implementing this standard, MPT would immediately create hundreds of thousands of new MPT holders, that will also benefit from appreciation, should they decide to hold.

The immediate result of this mechanism is that every paid commission is contributing in parallel to the effectiveness of the industry. Evidently, MPT cannot and will not force the market to implement this standard. MPT just wants to create this awareness and let the market decide for itself. Also, in this respect, token value increases by usage!

Blockchain was invented to cut out the middlemen. MPT does not want to cut them out necessarily. We want them to join us!
Secondary/Declassified Material Market

Up until approximately 20 years ago, the main steel producers were located in Europe and North America. Nowadays, the steel producers have heavily diversified their origins. Major Chinese and Indian players started to intervene in what was known as a very “Western-dominant” market model. MPT applauds this! Competition is healthy and always results in benefits for the end user. However, within our industry, there are a few factors which must be taken into account:

1. Steel production in China has grown exponentially in the last 10-20 years. Under the leading role of “BAOSTEEL”, production of metal packaging raw materials has increased dramatically.

2. A counter-measure by Western forces was bound to happen. As these numbers are kept secret, MPT can only estimate (percentage-wise) the magnitude of secondary/declassified materials that are used in today’s metal packaging. Our research concludes that (in Western markets), 40-50% of mainly non-food-related tinplate cans are made out of secondary/declassified material. MPT’s perspective on this matter is very clear: This needs to stop!

3. The worldwide production capacity is more than sufficient to keep up with the demand. The steel and aluminium prime material inventory is huge, mainly due to the reason that China will keep producing. As these materials can survive the elements of time, their prime material reserves increase on a daily basis. MPT’s perspective on this matter: Delving iron ore costs more energy (and CO2 emissions) than melting secondary/declassified material and turning it into new prime material. Not to mention that the quality of packaging metals would drastically improve by implementing this mechanism.

4. MPT is very aware of the fact that this is a very delicate issue. Mainly western steel mills have suffered from the Chinese expansion. Some of them have even shut down permanently. Sweden, Belgium and Spain are well-known examples.

5. While steel mills in Europe were shutting down, Chinese steel mills were being born. All these geographical shifts are still within reason for MPT. We will repeat: Competition creates healthier markets!

6. MPT will be the new standard to be used as payment to commercial agents (within the metal packaging industry), instead of commissions (fees) in fiat currencies.

7. MPT will be used horizontally and vertically through the whole metal packaging supply chain.

8. MPT will reduce the magnitude of secondary/declassified material trading.

9. MPT will strive to have steel producers back MPT’s token value by a (small) percentage of their production capacity.
Scrap Metal Recovery Program

To understand what secondary/declassified material is, a brief explanation of the production process is needed. Here we will focus on tinplate and TFS, instead of aluminium, as these two metals are the core of the secondary/declassified market, when it comes to metal packaging. Tinplate (ETP) and Tin Free Steel (TFS) are delivered to can makers or service centres (cutting centres) in coils of approximately 8-12 metric tonnes each. The coils are then fed to a “coil-cutting-line” or “cut-to-length-line”. This line uncoils (unrolls) the coils, while a guillotine-type shear cuts them into sheets. Besides cutting, there are several other functions that these lines fulfil. They check the material on “pin holes”, thickness inconsistencies and temper (hardness) inconsistencies. Normally a coil-cutting-line has 3-4 stackers. The sheets are sorted into categories. Usually two stackers collect the non-defectuous material, while stackers 3 and 4 collect the sheets of inferior quality. It is exactly here, where secondary/declassified materials are identified.
MPT’s Metal Scrap Purchase Program

If the cutting takes place at a can maker’s facility, they can use these inferior quality materials for other applications. An example would be using sheets with pin holes (microscopical ruptures) for non-liquid products. Paint cannot be filled in cans with pin holes, but coffee beans can. The material that they cannot use for any application, they sell on the secondary/declassified materials market.

In the event that the cutting takes place at a service centre, basically the same mechanism enters into play. Service centres usually don’t make cans, they simply cut and sometimes print the material for smaller can makers. After the inferior material has been sorted, it is sold either to the secondary/declassified material traders, or to can makers at a cheaper price. Worldwide, this secondary/declassified material market represents tens of billions USD annually.

Steel producers need to lend a hand!“

The role that steel producers can play here is huge. MPT suggests a program to return defectuous material (in)directly to the mills, in order to be recycled into prime quality material. If the industry would follow this model, supply and demand would be coupled to each other in a far more effective manner.

MPT will buy metal scrap to create a healthier market!”

Defectuous material traders make up to 300% profit margins on secondary/declassified material. MPT is, of course all for healthy trading, but not without “adding value”. Conventional “service centres“ add value to secondary/declassified material by sorting, cutting and sometimes lacquering/ printing. This way, the real scrap will end up being melted and the relatively good material can be re-used. This mechanism should remain in place.

Unfortunately, there is also another category of traders. Essentially they buy from can makers at (very close to) scrap prices. Without adding any value, they sell to developing countries (mainly India) at ridiculous prices. MPT aims to eliminate this type of trading by massively buying these materials and send them to the melting ovens. By doing this, MPT will create healthier market conditions, mainly for developing countries. Needless to say, the quality of the metal for packaging will drastically improve.
In every industry “the more you buy, the less expensive it is”. Volume is therefore an important factor, also in the metal packaging industry. A problem arises when a lot of smaller can makers are forced to buy secondary/declassified material, simply because of lack of volume. The big players group their material purchases, in order to obtain better prices per tonne. Smaller can makers simply don’t get to the volume threshold, imposed by steel producers.

MPT suggests creating geographical purchasing associations, in which material is purchased and distributed anonymously to the participant can makers. These initiatives are, in some countries, already in place and active, but not on a large scale and not organized officially.

MPT aims to create a dynamic system, in which melting inferior quality material, is more cost-effective than making cans out of it!”

“Blockchain has been created to cut out the middlemen.” Secondary/declassified material traders are exactly that! They are generating enormous profits by trading defectuous packaging materials. Ideally, this trading mechanism should be abolished. Not by any centralized entity, but by the market itself!

MPT will put maximum effort into this by initiating dialogues with governments, steel producers, can makers and packaging associations to make our industry healthier. By doing that, we believe joint efforts always result in success.

Good Material Should Be Re-used, but Scrap Must Be Melted!”
Summary

1. Environmental issues deriving from mass-consumption are harming the world as we know it.

2. MPT aims to revolutionize the metal packaging industry by: making it more cost-effective and eliminating or reducing the economic advantages of other less recyclable packaging materials.

3. MPT is developing a mobile app to raise awareness and incentivize individuals/companies to renew and improve their mentality regarding recycling.

4. MPT will present itself as “the” currency for all transactions within the metal packaging industry (see Roadmap).

5. MPT will “climb the ladder” through usage. We will be visible and usable for all layers of the metal packaging supply chain.

6. MPT will set the standard that commissions (fees), through the whole chain, are paid out in MPT. This standard will make the cost-effectiveness of the chain more transparent.

7. MPT will reserve a total of 10% of the maximum token supply, in order to massively purchase scrap metal and sending it directly to melt. This will create healthier global market conditions as well as increase material quality.

8. MPT will actively interact with governments, steel producers, can makers, can fillers (brand owners) and retail, in order to achieve our goals.

Key MPT Goal

“Absolutely every (suitable) product that can be packed in metal cans, should be packed in metal cans. Let’s help our planet!”
Carlos Cabanelas, MA  
(Co-Founder & CEO)

Carlos is a dynamic and result-driven professional. After graduating for his Master in “International Relations” (University of Utrecht, 2001, The Netherlands), he started to work as the commercial director at MEM. Here he established the relations, that rapidly grew into what his extensive sector network is today. At the age of 25, Carlos started being active in the can making industry.

By the age of 30, Carlos co-founded CMS in Spain, where he continued expanding his experience and network within the can making industry. Carlos is still a 25% shareholder of CMS.

In 2011, Carlos re-migrated to The Netherlands, where he soon came in contact with Peter Schoonewagen. Carlos and Peter both worked for MEM in the past, where they always complimented each other in a very effective manner.

Carlos and Peter started Procan in 2012. For the first time they dedicated themselves to manufacturing and selling newly manufactured can making machines, which is very different from selling pre-owned/refurbished machines, as they did before. Today, Procan is a global player as a can making machine supplier.

In 2017, as will apply for many readers, Carlos started to become extremely fascinated by Blockchain technology. Carlos’ favourite quote: “Blockchain is an immutable vehicle with the purpose to execute great ideas!”

It was not until January 2018, the first sketches of MPT started being created. It has been a very exciting and hectic 6 months, but Carlos enjoyed every minute of it. Carlos is very eager to really make a change in the world with MPT. “Seventeen years of accumulated knowledge and experience have come together for this purpose”, Carlos says.
Peter Schoonewagen
(Co-founder & Metal Packaging Advisor)

Peter is one of the most experienced individuals on the planet when it comes to metal packaging. At 59 years of age, exactly this year, he celebrates his 40th anniversary as an active professional within the metal packaging industry.

In 1978, Peter started working at MEM. Refurbishment of pre-owned can making machinery has been his speciality ever since. Soon, he became Technical Director.

Due to his extensive knowledge and experience in the field, Peter is a highly respected name within the industry.

In 2011, Peter and Carlos met again, after Carlos’ period in Spain. Today Peter and Carlos manage Procan very successfully.

Even today, Peter travels all over the world, mainly to supervise installation processes and offering technical consultancy to can makers worldwide.

In 2018, Peter and Carlos sat together at the “drawing board”, where MPT’s concept-ideas were created. Ever since then, Peter has been actively involved with the MPT project.

At 59, Peter is still very ambitious. Like Carlos, Peter’s attraction to the MPT project is predominately due to the real possibility of making the world a better place.

Peter’s favourite quote: “It’s wonderful to really believe that all of those years, can now actually start to make a difference in the world. Thank you Blockchain-technology!”
MPT Team
(continued)

Thomas de Wolf, MSc (diip Blockchain, Project Manager)

Thomas has a master degree from the Eindhoven University of Technology and an interest in computer vision and learning systems. After graduating he started software company Studio diip with Guust Hilte. Thomas has experience in neural networks and developing new projects.

Being involved with MPT since its creation, Thomas will contribute to the project as MPT’s project manager.

Guust Hilte, MSc (diip Blockchain, Senior Programmer)

Guust has been programming ever since he had a computer. In 2010 he started computer vision software company Studio diip together with Thomas de Wolf. In 2017 Guust started Triaconta and gathered valuable experience with blockchain technology and cryptocurrency.

Guust will contribute to the project as MPT’s head programming.

Oriol Coderch Negra (Metal Printing Advisor)

Oriol Coderch has extensive experience in the metal packaging industry, especially in printing, coating and metal decorating can making (fancy box), in Spain as well as in the European market.

Partner for 25 years in “Manufactura de Envases Cromometálicos SA”, a company specialized in printing and coating metal sheets. CEO and partner of Emdesa SA, a decorative can making factory.

Currently, and since 2015, consultant in the can making industry, mainly in printing and coating, as well as for the installation of new lines, with the objective to improve factories within the industry.

Oriol is based in Barcelona (Spain) and will dedicate his extensive knowledge to MPT as MPT’s Metal Printing Advisor.
Jasper Lijfering, (Chief Marketing Officer)

Passion is everything when it comes to marketing! As the owner of Amsterdam Vintage Watches, Jasper has achieved to lift the public perception of the vintage watch market to unseen heights. Jasper adds elegance, style, but mostly passion to his market formula. The combination of these factors have resulted in a very successful adoption of his products. Jasper’s huge network (celebrities included) will be of great value to MPT.

When Carlos approached Jasper this summer, his response was very characteristic: Jasper told Carlos that he would only join, if he could find the passion for MPT within himself. MPT team is very happy that that is now a fact. Jasper will dedicate his marketing skills and network to MPT as Chief Marketing Officer.

Oscar Cabanelas, BA (Ambassador CSR)

Oscar started his professional career in marketing management, but soon found out that his talents required a specific target market. In 2004, Oscar entered the “promotional gift industry”. Today, Oscar (based in Barcelona, Spain) is the sales director for the Southern-Europe area for Giving Europe. A true specialist, when it comes to what materials are used for their products. Sustainability and choice of products are a key factor in today’s world, thus also within the promotional gift industry.

Being Carlos’ younger brother, Oscar has been involved with the MPT project since the beginning. Oscar will contribute to MPT with his specialist knowledge, mainly on the “corporate-social-responsibility-level” as Ambassador CSR.

Robert de Heer, MBA (Advisor Governments & NGO’s)

Robert has been an ICT-professional for most part of his career. After successfully concluding his “Government & Non-profit” MBA, Robert started to focus more and more on project management within the Dutch government. Robert managed ICT-projects within both the Dutch Ministry of Agriculture and the Dutch Ministry of Internal Affairs.

Robert immediately grew a huge interest towards the MPT project, in which he will dedicate his acquired skills and network as MPT’s Advisor Governments & NGO’s within the industry.
Romé Groeneboom, (Social Media Representative)

After graduating for her “Gymnasium”, Romé, as many millennials do nowadays, decided to take a sabbatical year with a two-fold objective: to learn a foreign language and to figure out what her passions really are in life. Romé spent six months in Valencia, Spain. Besides learning Spanish, she decided to go for a “notarial law”-career, which she is successfully executing at the moment of writing. Her “passion for sustainability” combined with her ambition to create a better world results in an adequate MPT member. Romé will dedicate her extraordinary ambition toward the MPT project as a Social Media Representative.

Hylke Hogenbijl, (Can Making Advisor)

At 18 years of age, Hylke started to work at MEM (with Carlos and Peter). He gradually expanded his commercial and networking skills and at 25 years of age, Hylke was an established name within the industry. Today Hylke is the General Manager of Dutch Cans, a company specialized in quality used can making equipment. Furthermore, Hylke has been involved with virtual currencies and Blockchain technology since 2015. When Hylke learnt about the MPT project, it immediately got him enthusiastic and very interested to be a part of it. As a “Can Making Advisor” Hylke will contribute to the growth of the MPT ecosystem.
Roadmap

Q1 2018
- MPT project is born
- Numerous meetings with candidate developers
- Research for Whitepaper starts

Q2 2018
- Team decides that MPT will launch on EOS
- Various meetings with candidate social media channel moderators
- Writing process Whitepaper starts

Q3 2018
- MPT partners with DIIP Blockchain
- MPT smart contract writing process starts (DIIP Blockchain)
- Various meetings with future partners (NDA)
- Start of website development
- Social media channels (Twitter, Telegram and Reddit) are open

Q4 2020
- MPT mobile app (iOS + Android) + competitive charging Beta

Q2 2020
- MPT mobile app development starts + competitive charging Alpha

Q3 2019
- MPT airdrop to EOS holders
- 4-week community sale capped MPT

Q1 2019
- MPT website goes live
- Start MPT marketing campaign
- Hiring qualified personnel

Q4 2020
- First MPT deposit points are installed

Q1 2021
- Implementation of MPT in FIFTH LAYER

Q3 2021
- Implementation of MPT in THIRD + SECOND layer

Q2 2022
- Implementation of MPT in FORTH layer
Bibliography

1. apeal.org
2. steelforpackaging.org
3. news-sky-com.cdn.ampproject.org
4. nrch.nl
5. smitherspira.com
6. treadingmyownpath.com
7. diseurope.com
8. packagingblog-org.cdn.ampproject.org
9. Carbotech
10. Metal Packaging Europe
11. American Forest and Paper Association