

# VOLON'TERRE

## NOTE OF INTENT

### **Analysis: the French backwardness in organic waste management**

By 2025, the French law called *Loi de transition énergétique pour la croissance verte* (Law of energetic transition for green growth) of August 17th 2015, states that all organic waste should be sorted out separately in order to facilitate their management in a cleaner and more sustainable way<sup>1</sup>. In 2015, in France, about 11 millions tonnes of organic waste were produced<sup>2</sup> by French households. Besides, the specific collect and treatment of organic waste is only applied to 10% of these households, whereas it goes up to 60% or even 80% respectively in Germany and Austria. France is late, and this situation becomes more and more problematic as the negative impact of waste on the environment is now proven. On the other hand, very few dedicated sites of organic waste treatment, by methanisation or composting, opened in France<sup>3</sup>. This lack of specific, technical and adapted solution to treat organic waste in France led to a situation where they are managed with non-recyclable waste and incinerated or buried, with a terrible effect on atmosphere and soils. Considering this shameful assessment in a problematic that concerns everyone in his everyday life, and the legal constraints mentioned as an opening, we tried to develop an effective and sustainable solution to recycle organic waste.

### **The *Volon'Terre* solution: simplicity & efficiency**

The *Volon'Terre* initiative aims at tackling this important issue by offering a new service of collect, treatment and reuse of organic waste. We would organize a collect of organic waste at home, or in local collect points so that distance and time would not be disheartening. Besides, the service would be connected with an user-friendly app giving data on the organic waste recycled so far by, the environmental consequences, offering special offers and providing collect options. Then, collected organic waste would be store and transformed into compost and then sold to producers, or even, after the project is more mature, to individual consumers in order to increase the benefit. Finally, a determinant component of the project would be the creation of a dense network of partnership and sponsorship composed of:

- Associations helping promoting the service and enabling it to ease its way into the blue economy community ;

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<sup>1</sup>Loi n°2015-992 relative à la transition énergétique pour la croissance verte, Article 70.

<https://www.legifrance.gouv.fr/affichTexteArticle.do?idArticle=JORFARTI000031044647&cidTexte=LEGITEXT000031047847&categorieLien=id>

<sup>2</sup> 2017 ADEME Report, *Waste, Key figures*.

<https://www.ademe.fr/expertises/dechets/chiffres-cles-observation/chiffres-cles>

<sup>3</sup> ADEME, *Organic Valorisation*.

<https://www.ademe.fr/expertises/dechets/passer-a-laction/valorisation-organique>

- Primary producer buying and helping us improve our compost ;
- Large retailers benefiting of an improvement of their image, and helping us developing the service, especially by organizing special events and offers via the app.

The major strength of our proposal is its simplicity. The aim is to develop it at a local scale in order to limit the infrastructure needed and the cost, and once again in order to be in phase with the blue economy principles. The service would be new since barely no such initiatives are organized for the general public.

### **Quantitative & qualitative positive impacts**

The positive impacts of the project are numerous, both direct and indirect. First, the solution would directly reduce the amount of non-recycled organic waste, and more generally the amount of incinerated or buried waste. Indirectly, it would reduce the greenhouse gas emissions, and therefore have a positive impact on climate change. These indicators, being quantitative, and as the actual scientific knowledge can accurately convert the waste reduction in greenhouse gas emission avoided, would be easy to measure. Another direct impact would be the production of compost, that would be used in agriculture and hopefully replace at least partially chemical fertilizers. This would also be measurable quite easily by a before/after field study. The last but not least positive impact would be the improvement of user's habits: the app data and advice would help them be more careful with the management of their waste, sensitize them to other social and environmental initiative, and reorient them towards more local, seasonal and more organic products. This change would be global, also affecting our retailers partners interested in changing our image. This qualitative impact is of course more difficult to measure, but would nonetheless be a major effect of the solution thought as a global and full-service offer.

### **Anticipation of economic, environmental and commercial risks**

As in any innovative and original project, we however should and will be watchful on certain risks. First, in order to have the project rapidly economically sustainable, the objective would be to carefully control the cost items. For example, the first waste collects should be organized in meeting points, in order to limit transportation costs, besides, following a lean method, we should adapt the size of the first storage local to a limited production. Another risk is that wholesale compost prices are quite low, therefore, we should try to negotiate for local producers to come and pick it, rather than delivering it. Beyond these cost issues, we will be vigilant on the carbon footprint of the overall project. On this point, even if the aim of the solution is to be applied in a maximum of areas, the organisation of collects and organic waste treatment should be kept at a local scale in order to limit transportation. Finally, a commercial risk is the lack of attractiveness of the solution for households living in rural areas and already using their own organic waste as a fertilizer for their own vegetable garden. This reality being very clear in our minds from the early stage of the project ideation, we decided that our solution is specifically designed for urban households. However, after some time, we

hope to be able, technically and economically, to provide retail compost. Then, these rural households would become a target audience.

### **Deployment strategy and major milestones**

First of all, we will need to buy or rent infrastructures to implement our composting activities. They must be not too far away from the city as it would limit the costs of transport. In parallel, it is essential to develop our application as its quality will be key for our future customer relationship.

Then, we will start communicating about our solution to potential producers and consumers of our organic compost. In our case, as producers are households, we will launch classic campaigns of advertising by way of different channels. On the opposite, we will convince the users through professional events or telephone solicitation.

Obviously, the next step is the launching of collects, that is to say the beginning of our activity. The first ones will certainly cost us more money than we will earn and will not be kilometer-speaking efficient. However, within a year we hope to have enough producers in order to become profitable.

Later, the focus will be on the improvement of the quality of our compost, on the decrease of its production process and on the increase of the number of collects. In our minds, this last point lies on building a strong network between producers, consumers and us. The goals are to be more efficient while keeping on growing.

### **Return on investment analysis Estimated costs and gains**

To see the details of each amount, please refer to *Annex A*.

<b>Launching costs</b>		<b>First investments</b>	
Collecting electric vehicles	45 000 €	Stockholders' equity	50 000 €
Computers and softwares	4 000 €	Bank loans	20 000 €
App development	16 000 €	Start-up incubator	10 000 €
Website development	10 000 €	Loan (BPI)	30 000€
Cash	1000 €		
<b>Total</b>	<b>76 000€</b>	<b>Total</b>	<b>110 000€</b>

<b>Expenses (per year)</b>		<b>Incomes (per year)</b>	
Renting a building with a warehouse	40 000 €	Compost sales	15 000 €
Costs of transport	1 500€	Partnerships	20 000 €
Marketing campaign	25 000 €	Public subventions	268 000€
Accounting service	1 200 €		
Regulatory service	1 000 €		
Workforce	225 000€		
Participation to events	11 000 €		
<b>Total</b>	<b>304 700€</b>	<b>Total</b>	<b>303 000€</b>

The first investments of our company have been structured not to rely too much on loans. Moreover, the financial contribution of our stockholders will guarantee their commitment to the success of *Volon 'Terre*.

Regarding the expenses/incomes part, our business cannot afford betting on compost sales to become profitable as its price may raise<sup>4</sup> but will remain low. Then we will be dependent on partnerships and public subventions.

### **Organization, resources and skills required**

Our team will be composed of many different skills and jobs. We will need one logistic engineer to optimize the collects and the stocks of our warehouse, one compost specialist to guarantee the quality of our products, one commercial for the customer relationship, 3 drivers to collect compost from private individuals, and 2 warehouse keepers to organize and secure our stocks.

We have decided to rely on external services for marketing, accounting and regulatory because our business will be too small to require people on a full-time basis for this tasks.

### **Partners, sponsors of the project**

As we have outlined above, the multiple partnerships that we will forge in the early days of Volon'terre development are crucial. As such, it is important to gain a significant visibility

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<http://www.organics-recycling.org.uk/page.php?article=1882&name=Report+indicates+demand+for+compost+set+to+rise+>

fast enough. The Salon de l'Agriculture is the must-see event in France in our line of business (673,000 visitors, of which 30,000 professionals)<sup>5</sup>. To participate, a standard booth costs €4,812 H.T for 12m<sup>2</sup><sup>6</sup>. Our participation will undeniably boost our visibility and business. Furthermore, other events such this one happen all year round in Paris and its suburbs, allowing us to gain visibility throughout the year<sup>7</sup>. In addition, multiple music and other festivals welcome “green” startup such as ours during the time of the event, which would allow us to gain further recognition. The price for a stand in these kind of events vary greatly according to the number of visitors but revolves around €2,000 for a festival with 25-30,000 visitors across 3 days<sup>8</sup>. On the sponsorship side of things, large groups often partner up with startups on specific projects and give in this case a median €20,000 during the time of the partnership, which we could use to develop our activity further whilst promoting the sponsoring brand<sup>9</sup>.

### **Public subventions**

As a startup placing environmental action at the core of our activities, we are entitled to financial support from public institutions. First, during the launching phase, we will ask for a zero-interest loan from the BPI (Banque Publique d'Investissement), amounting to **30 000€**.<sup>10</sup> From the Région Île de France, we will receive the subsidy aimed at ‘innovative projects improving waste management’: we can expect **9 000€**. From the same institution, we will benefit from the support to the purchase of clean vehicles for small and medium companies, amounting to **27 000€** in total, for our three cars. The ADEME (National Agency for the Protection of the Environment and the Management of Energy) will grant us will a **70 000€** subsidy, within the scope of its call for tenders on innovative projects centered on biomass. France Active, a public institution encouraging entrepreneurship, will grant us a **2 000€** support subsidy for the launch of our company. We will also call for EU subventions: as part of the LIFE agenda, ENVIROPEA will grant us a **30 000€** subsidy, as our project fulfills the application’s requirements. Most importantly, the EU Commission (‘Horizon 2020’ program) offers entrepreneurial projects acting for food safety and waste reduction large grants, amounting to 50 000€ in the first phase of development, and up to two million euros in the subsequent phases: we are planning on asking for **130 000€** from the EU Commission in total.

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<https://www.salon-agriculture.com/Espace-exposants/Exposer-au-Salon/Devenez-exposant/Bilan-en-chiffres-de-l-edition-2018>

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<https://event.salon-agriculture.com/2019/espace-exposant/dossier-de-participation/stand-souhaite.htm>

<sup>7</sup> <https://www.parisinfo.com/ou-sortir-a-paris/infos/guides/calendrier-foires-salons-paris?page=4>

<sup>8</sup> <https://fnb.montreux-jazz.ch/clients/artisan2.php>,

<http://www.toulouseatable.com/wp-content/uploads/Dossier-Partenaire-au-150615.pdf>,

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[http://startups-grandsgroupes.lafrenchtech.com/wp-content/uploads/2017/10/171110\\_FT\\_baromètre\\_VDEF\\_pages-1.pdf](http://startups-grandsgroupes.lafrenchtech.com/wp-content/uploads/2017/10/171110_FT_baromètre_VDEF_pages-1.pdf)

<sup>10</sup> [http://www.aides-entreprises.fr/aide/7227?id\\_ter=36691](http://www.aides-entreprises.fr/aide/7227?id_ter=36691)

## Annex:

### Launching costs:

- Collecting electric vehicles: 45 000€
  - 3 vehicles x (15 000€/vehicle\*)<sup>11</sup>
    - \* French bonus for buying included
- Computers and softwares: 4 000€
  - 5 computers x 700€/computer + 500€ (softwares)
- App development: 16 000€<sup>12</sup>
- Website development: 10 000€<sup>13</sup>

### First investments:

- Stockholders' equity: 50 000€
- Bank loans: 20 000€
- BPI loan: 30 000€
- Start-up incubator: 10 000€
  - This amount is rather a saving than a real investment. It lies on the help found in the incubator regarding the app and website developments, as well as the accounting and regulatory services.

### Expenses (per year):

- Renting a building with a warehouse in Paris suburbs: 40 000€/year
  - 500m<sup>2</sup> x 80€/m<sup>2</sup>/year<sup>14</sup>
- Costs of transport: 1 500€/year ((2€/100km<sup>15</sup> x 100km/collect = 2€/collect) x 750 collects/year)
  - Our headquarters will be in the suburbs of Paris, that is why 100km is the estimated distance traveled during a collect.
  - 750 collects/year = 50 weeks/year x 5 collects/week/vehicle \* 3 vehicles
- Marketing campaigns: 25 000€/year<sup>16</sup>

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<sup>11</sup> <https://www.automobile-propre.com/voitures/renault-kangoo-express-ze/>

<sup>12</sup> [combiencoutemonapp.com](https://www.combiencoutemonapp.com/), 2018

<https://www.combiencoutemonapp.com/>

<sup>13</sup> La Fabrique du Net, 2018

<https://www.lafabriquedunet.fr/blog/cout-creation-site-internet/>

<sup>14</sup> Lifiz - Spaces, 2018

<https://www.lifizz.fr/fr/spaces/aal2a62d5-tofpACT-toftLOC/@0.0NE@0.0SW/0-0/0-0-0-0-0/o.ranking-asc/1-17/search>

<sup>15</sup>

<https://particuliers.engie.fr/economies-energie/conseils/solutions-innovantes/cout-vehicule-electrique.html>

<sup>16</sup> Okedito, 2018

<https://www.okedito.com/prix-campagne-content-marketing/>

- Accounting services: 1200€/year<sup>17</sup>
- Regulation services: 1000€/year
- Workforce: 225 000€/year
  - 1 logistic engineer (45k€/year)<sup>18</sup>
  - 1 compost specialist (45k€/year)
  - 1 commercial (60k€/year)<sup>19</sup>
  - 3 drivers (3x15k€/year)
  - 2 warehouse keepers (2x15k€/year)
- Participation to events (Salon de l'Agriculture, music festivals etc.)
  - 11 000 € (1x Salon de l'Agriculture and 3x festivals)

#### Incomes (per year):

- Compost sales: 15 000€/year (750 collects/year x 400 kg/collect x 50€/t<sup>20</sup>)
  - Low compared to our expenses, but expected to increase in the near future<sup>21</sup>
- Partnerships: 20 000€
- Public subventions: 268 000€

#### Public subventions: total of 268 000€ and loan of 30 000€

- BPI (*Banque Publique d'Investissement*), zero-interest loan: **30 000€**
- Région Île de France, *Aide à la recherche et aux projets innovants dans le domaine de la prévention et de la gestion des déchets*. Amounts to maximum 30% of investment expenses within the reach of 200 000€, minus the vehicles: **9000€**
- Région Île de France, *Aide à l'acquisition de véhicules propres pour les TPE-PME*. Amounts to 9000€ for the heavy engines, electric or hybrid: total of **27 000€**.
- ADEME, *Call for projects 'GRAINE: Managing, producing and adding value to biomass'*. Aims at the environmental efficiency of systems of production, transformation, and valorization of biomass. Up to 250 000€: we will ask for **70 000€**.
- FRANCE ACTIVE, *Cap'Jeunes Project*. Amounts to **2000€**.
- European Union Commission, *Horizon 2020, 3rd Priority: The Bioeconomy*. Amounts to 50 000€ for the development phase, and up to millions of euros in the subsequent phases: total of **130 000€**.
- ENVIROPEA, EU, *Call for projects 'LIFE: Financial Instrument for the Environment'*. Targets projects that contribute to reducing CO2 emissions, limit the use of chemicals, and improve management of waste. Estimated amount: **30 000€**.

<sup>17</sup>

<https://www.expert-comptable-tpe.fr/articles/combien-coute-une-comptabilite/#2-Le-prix-d%E2%80%99un-expert-comptable-quelques-ordres-de-grandeur>

<sup>18</sup> <https://www.indeed.fr/salaries/Ing%C3%A9nieur-Agronome-Salaries>

<sup>19</sup> <https://www.regionsjob.com/observatoire-metiers/fiche/commercial>

<sup>20</sup> SAGe - Tarifs particuliers, 2018

<sup>21</sup>

<https://waste-management-world.com/a/the-true-value-of-compost-expanding-new-markets-and-the-potential-of-this-resource>