

SUEZ – Institut de France Awards

Winner of the “Social Entrepreneurship” category

2017-2018 edition

“COLIBA – C+ Propre: A pre-collection solution for waste in Africa, with 100% payment via mobile money and sorting at source level”, Ivory Coast

COLIBA



Structure

COLIBA is an African start-up created in 2017, which makes use of technology for plastic waste recycling via a Web, Mobile and Text Message application. Its action has the fourfold objective of establishing a healthy living environment, taking account of environmental preservation whilst creating a dynamic local economy thanks to collective awareness-raising.

Context

In the majority of African mega-cities, the observation as regards insalubrity is always the same. A capital city with 4 million inhabitants produces 16 000 m³ (2 200 t) of waste every day, only half of which reaches authorized discharge points. The rest is found in the streets, in water points or is burned. Spread out over one year, this equates to 400 000 tons of waste and 40 000 tons of various plastics.

The other important point in this sector is the significant place occupied by informal operators. The budgets handled by the informal sector, as much at the level of pre-collection as recovery, are almost equivalent to dedicated state budgets. And if until now it was unthinkable to imagine an international structure turning its attentions to door-to-door collection, thanks to digital technologies this is no longer the case:

- With mobile money, we can legalize all or a part of this first segment (pre-collection) in order to improve its efficiency and relieve local authority budgets.

- Digital technology also permits sorting to be proposed at source level, with an incentive system for recoverable materials. We consequently reduce the flows going to landfill and increase profitability with the sale of by-products.

The better functioning of this first link in the waste management chain is an essential stake in resolving problems of insalubrity.

Our grouping of French-Ivorian start-ups (COLIBA and CPROPRE) combines our respective strengths to put in place an innovative waste pre-collection, sorting and recovery solution in Abidjan. COLIBA is responsible for waste sorting and recovery whilst CPROPRE is responsible for subscription management and waste pre-collection services.

Objectives

General objective:

Thanks to a digital service, to provide a viable solution which is adapted to governments for the pre-collection, sorting at source and management of waste.

Specific objectives:

- Formalize an entire section of the informal waste economy,
- Improve the salubrity of districts (elimination of unauthorized landfills and of their consequences) ,
- Conserve the jobs of pre-collectors, whilst improving conditions and create new support jobs,
- Collect plastic at source level to lower its collection price and make its recovery profitable whilst at the same time protecting the environment.
- Establish an effective waste pre-collection service which can be paid for using mobile money
- Put in place incentive,source-level waste sorting

Description of the project

The project is implemented in Abidjan (Ivory Coast).

We offer households a global solution in order to effectively manage the evacuation of their waste. In the long-term, we will be proposing a solution to local authorities in order to make cities more salubrious.

In the field, it's extremely simple:

- 1) Pre-collection service users pay for our identifiable rubbish bags by telephone. The price includes the bag and its evacuation to the closest skip. As soon as a bag is full, it is left on the doorstep where our pre-collectors see it and take it away.
- 2) In addition to rubbish bags, we supply specific bags for sorting. Households who sort waste correctly receive points which are exchanged for rewards (telephone credits, basic products, beauty products etc). In addition, the more service subscribers there are in a given district, the more frequently the streets are cleaned.

Waste outlets:

- 1) Domestic waste: once in the skip, its evacuation is the responsibility of the waste collector / transporter (public service or delegatee)
- 2) Materials resulting from sorting: PET plastics are recovered and transformed as a raw material sold on to local industry. The project will progressively propose the recovery/recycling of other products

(paper-cardboard, aluminium)

Residents can subscribe to the service directly in the street via sales representatives, by telephone (text message or mobile application) or on Internet. With the simple touch of a button on the mobile application or by telephone, the client is geo-tracked and empty rubbish bags are delivered to his home, whilst sorted products are collected in less than 30 minutes.

Description of the innovation

The innovation can be found at several levels:

- **The use of mobile money** to manage subscriptions. It will permit payment collection problems to be eliminated as well as problems linked to cash circulation. It will also render the financial flows of the informal sector visible and taxable.
- **The use of geo-tracking** to map out the zones where subscribers live, or to guide pre-collectors.
- **The construction of interfaces thanks to digital technologies** (application, USSD interface) permitting households to use their points or put the company in touch with recovery/recycling industry players.

Results

To date, the COLIBA project enables:

- 1 ton of plastic waste to be collected every day
- Hiring of 15 pre-collectors and 2 relay managers
- The acquisition of 2 landfills and transformation equipment (1 shredder, 1 extruder, 1 dryer)
- The acquisition of 3 three-wheeler scooters
- The constitution of a network of hotel partners (6 hotels, 16 restaurants)
- The subscription of 600 active households who sort their waste
- The realisation of awareness-raising days in schools (10 000 pupils made aware of waste sorting in 2017)

C+ propre has validated its new pre-collection concept with a sample of 500 households from a working class district (Port-Bouët). This pilot phase required the acquisition of 4 rickshaws and resulted in 10 pre-collectors being hired.

The improvements made to waste management in the cities targeted:

- Elimination of the informal sector and reinforcement of the public authority : the flows paid for by mobile payment are declared and subject to tax.
- Reduction in illegal landfills,
- Reduction in plastics,
- Improved pre-collection quality,
- Better conditions for pre-collectors,
- Maintaining of the social fabric formed by pre-collectors : 100% of the pre-collectors in place will have a place in our service. Either via a franchise system, for the short-duration subscription service, or within the context of a contract for long-duration subscriptions.

Reproducibility of the project

The project can be easily reproduced in other cities in Africa where the same waste management problems are faced.

More than one dozen capitals and cities in Africa count more than one million inhabitants. At the beginning of 2017, Coliba launched the project in Accra where the company now collects more than 3 tons of plastic every day. This capital city is also marked by the explosion of payment using mobile money and the need to find waste evacuation solutions adapted to the local context.

Conditions of reproducibility

Every major African city with the presence of a middle class is a target. The system is the same everywhere, with organizational differences and varying proportions of recourse to informal services.

On the other hand, recycling requires proximity to an industrial zone likely to purchase the products recovered.

Determining factors for success are:

- The deployment zone: % of population having recourse to pre-collection, competition from informal pre-collection, current prices, presence of other material recyclers.
- Formal and informal local players: the operator responsible for container management, informal players, political authorities.

The main difficulties and constraints:

- Manage competition with the informal sector and its progressive integration into our system
- Manage discussion with traditional leaders in districts and the authorities,
- Ensure the right legal formula enabling us to work in conjunction with the authorities.

The pre-requisites and necessary means:

- Investments are very low to begin to deploy the service offer (digital development, PPE, rubbish bags, carts, rickshaws, scooters)
- Fixed jobs depend on the number of long-term subscribers. The remaining pre-collectors are franchised, to limit expenses.
- But we need to be able to finance the first few months of the start-up in order to drain competition any rally competing pre-collectors. This constitutes the main cost.

Contact

Genesis Ehimegbe, Fondateur
Email : genesis.ehimegbe@gmail.com

Website

- SUEZ – Institut de France Awards: www.prix-initiatives.com
- COLIBA : <https://coliba.ci/>